ARIZONA PUBLIC SERVICE COMPANY

PRO FORMA OPEN ACCESS

TRANSMISSION TARIFF

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I. COMMON SERVICE PROVISIONS

1 Definitions

1.1 ACC:

The Arizona Corporation Commission.

1.2 AZ ISA:

The Arizona Independent Scheduling Administrator Association. An organization established to coordinate development of operational and administrative protocols necessary to implement retail direct transmission access in Arizona; to act as a scheduling administrator on behalf of transmission providers who are a member of the AZ ISA and users of the interconnected transmission system within the State of Arizona for purposes of retail competition; to monitor the scheduling, reservation and OASIS management of said transmission providers to ensure compliance with the operational and administrative protocols; and to provide a forum for the speedy resolution of disputes among the said transmission providers and users.

1.3 Affiliate:

With respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

1.4 Ancillary Services:

Those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of APS' Transmission System in accordance with Good Utility Practice.

1.5 Annual Transmission Revenue Requirement:

The total annual cost of the Transmission System for purposes of Network Integration Transmission Service and Retail Network Integration Transmission Service combined shall be the amount specified in Attachment H until amended by APS or modified by the Commission.

1.6 Application:

A request by an Eligible Customer for transmission service pursuant to the provisions of the Tariff.

1.7 APS BAA:

Refers to the BAA Operated by APS.

1.8 APS BAA Transmission Owner:

A transmission owner, other than the APS EIM Entity, who owns transmission facilities in the APS BAA.

1.9 APS EIM Base Schedule:

An hourly forward energy schedule that is submitted by an EIM Entity Scheduling Coordinator or EIM Participating Resource Scheduling Coordinator for use by the MO in the Real-Time Market.

1.10 APS EIM Business Practice Manual (APS EIM BP):

The business practice posted on APS's OASIS that contains procedures related to APS's implementation of EIM and the rights and obligations of Transmission Customers and Interconnection Customers related to EIM.

1.11 APS EIM Entity:

The Transmission Provider in performance of its role as an EIM Entity under the MO Tariff and this Tariff, including, but not limited to, Attachment Q.

1.12 APS EIM Scheduling Coordinator:

The Transmission Provider or the entity selected by the Transmission Provider that is certified by the MO and that enters into the MO's pro forma EIM Entity Scheduling Coordinator Agreement. An EIM Participating Resource Scheduling Coordinator may not also be an EIM Entity Scheduling Coordinator unless it is also a transmission provider subject to the standards of conduct set forth in 18 C.F.R. Section 358.

1.13 APS EIM Participating Resource:

A resource or a portion of a resource that may include Balancing Authority Area Resources: (1) that has been certified in accordance with Attachment Q by the APS EIM Entity as eligible to participate in the EIM; and (2) for which the generation owner and/or operator enters into the MO's pro forma EIM Participating Resource Agreement.

1.14 APS EIM Non-Participating Resource:

A resource in APS's BAA that is not an APS EIM Participating Resource.

1.15 APS EIM Participating Resource Scheduling Coordinator:

A Transmission Customer with one or more APS EIM Participating Resource(s) or a third-party designated by the Transmission Customer with one or more APS EIM Participating Resource(s), that is certified by the MO and enters into the MO's pro forma EIM Participating Resource Scheduling Coordinator Agreement.

1.16 APS Interchange Rights Holder:

A Transmission Customer who has informed the APS EIM Entity that it is electing to make reserved firm transmission capacity available for EIM Transfers without compensation.

1.17 Arizona Retail Competition Program:

The Arizona Corporation Commission's retail direct access program.

1.18 Balancing Authority (BA):

The responsible entity that integrates resource plans ahead of time, maintains the load-Interchange-generation balance within a BAA, and supports interconnection frequency in real time.

1.19 Balancing Authority Area (BAA):

The collection of generation, transmission, and loads within the metered boundaries of the BA. The BA maintains load-resources balance within this area. For purposes of this Tariff, "BAA" shall have the same meaning as "Control Area."

1.20 Balancing Authority Area Resource (BAAR):

An APS Participating or Non-Participating Resource that 1) is unit specific, 2) can provide regulation and load following services to enable the APS EIM Entity to meet reliability criteria, and 3) is either owned by APS or APS has contracted for the right to call upon the capacity for regulation or load-following services from that resource.

1.21 Bid Cost Recovery (BCR):

The MO Energy Imbalance Market settlements process through which APS's EIM Participating Resources recover their bid costs.

1.22 Bookout:

A transaction in which energy or capacity contractually committed bilaterally for delivery is not actually delivered due to some offsetting or countervailing trade.

1.23 California Independent System Operator Corporation (CAISO):

A state-chartered, California non-profit public benefit corporation that operates the transmission facilities of all CAISO participating transmission owners and dispatches certain generating units and loads. The CAISO is the MO for the EIM.

1.24 CAISO BAA or CAISO Controlled Grid:

The system of transmission lines and associated facilities of the CAISO participating transmission owners that have been placed under the CAISO's operational control.

1.25 Commission:

The Federal Energy Regulatory Commission.

1.26 Completed Application:

An Application that satisfies all of the information and other requirements of the Tariff.

1.27 Control Area:

An electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to:

1.27.1 match, at all times, the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);

1.27.2 maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;

1.27.3 maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice;

1.27.4 provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

1.28 Curtailment:

A reduction in firm or non-firm transmission service in response to a transfer capability shortage as a result of system reliability conditions.

1.29 Day:

Hour-ending 0100 through hour-ending 2400 Mountain Standard Time.

1.30 Delivering Party:

The entity supplying capacity and energy to be transmitted at Point(s) of Receipt.

1.31 Designated Agent:

Any entity that performs actions or functions on behalf of APS, an Eligible Customer, or the Transmission Customer required under the Tariff.

1.32 Direct Assignment Facilities:

Facilities or portions of facilities that are constructed by APS for the sole use/benefit of a particular Transmission Customer requesting service under the Tariff. Direct Assignment Facilities shall be specified in the Service Agreement that governs service to the Transmission Customer and shall be subject to Commission approval.

1.33 Dispatch Instruction:

An instruction by the MO for an action with respect to a specific APS EIM Participating Resource or BAARs for increasing or decreasing its energy supply or demand to a specified Dispatch Operating Point pertaining to real-time operations.

1.34 Dispatch Operating Point:

The expected operating point, in MW, of an APS EIM Participating Resource that has received a Dispatch Instruction from the MO or a BAAR to which the APS EIM entity has relayed Dispatch Instructions received from the MO. For purposes of Attachment Q of this Tariff, the Dispatch Operating Point means the incremental change, in MW output, of (i) a APS EIM Participating Resource due to an EIM bid being accepted and the APS EIM Participating Resource receiving a Dispatch Instruction; or (ii) a BAAR for which a Dispatch instruction has been issued by the CAISO with respect to EIM Available Balancing Capacity. The Dispatch Operating Point is expressed either as (i) a negative MW quantity for the downward movement of generation, or (ii) a positive MW quantity for the upward movement of generation.

1.35 Dynamic Transfer:

The provision of the real-time monitoring, telemetering, computer software, hardware, communications, engineering, energy accounting (including inadvertent Interchange), and administration required to electronically move all or a portion of the real energy services associated with a generator or load out of one BAA into another. A Dynamic Transfer can be either:

(1) A Dynamic Schedule: a telemetered reading or value that is updated in real time and used as a schedule in the AGC/ACE equation and the integrated value of which is treated as an after-the-fact schedule for Interchange accounting purposes. Dynamic Schedules are commonly used for scheduling jointly-owned generation to or from another BAA; or

(2) A Pseudo-Tie: a functionality by which the output of a generating unit physically interconnected to the electric grid in a native BAA is telemetered to and deemed to be produced in an attaining BAA that provides BA services for and exercises BA jurisdiction over the generating unit. This value is treated as an actual Interchange and validated after the hour in real time with the host BAA.

1.36 Eligible Customer:

(i) Any electric utility (including APS and any power marketer), Federal power marketing agency, or any person generating electric energy for sale for resale is an Eligible Customer under the Tariff. Electric energy sold or produced by such entity may be electric energy produced in the United States, Canada or Mexico. However, with respect to transmission service that the Commission is prohibited from ordering by Section 212(h) of the Federal Power Act; such entity is eligible for transmission service only under Part IV of the Tariff if the service is provided pursuant to a state requirement

that APS offer the unbundled transmission service, or pursuant to a voluntary offer of such service by APS. (ii) Any Scheduling Coordinator that can perform the duties described in R14-2-1610(G) of the Arizona Administrative Code regarding Retail Electric Competition as set forth in the AZ ISA Tariff is an Eligible Customer for transmission service under Part IV of the Tariff.

1.37 Emergency:

Any abnormal system condition that requires automatic or immediate action to prevent or limit the failure of transmission facilities or generation supply that could adversely affect the reliability of the Transmission Provider's Transmission System or other Transmission Systems in the Western Electricity Coordinating Council.

1.38 Energy Imbalance Market (EIM):

The real-time market to manage transmission congestion and optimize procurement of imbalance energy (positive or negative) to balance supply and demand deviations for the EIM Area through economic bids submitted by EIM Participating Resource Scheduling Coordinators in the fifteen-minute and five-minute markets.

1.39 EIM Area:

The combination of APS's BAA, the CAISO BAA, and the BAAs of any other EIM Entities.

1.40 EIM Available Balancing Capacity:

Any upward or downward capacity from a BAA Resource APS has a right to, by virtue of ownership or a voluntary contractual arrangement, which has not been bid into the EIM and is included in the APS EIM Entity's Resource Plan.

1.41 EIM Entity:

A BA, other than the APS EIM Entity, that enters into the MO's pro forma EIM Entity Agreement to enable the EIM to occur in its BAA.

1.42 EIM Transfer:

The transfer of real-time energy resulting from an EIM Dispatch Instruction: (1) between the APS BAA and the CAISO BAA; (2) between the APS BAA and an EIM Entity BAA; or (3) between the CAISO BAA and an EIM Entity BAA using transmission capacity available in the EIM.

1.43 ESP:

Electric Service Provider. A company supplying, marketing or brokering services at retail, or any of the services described in R14-2-1605 or R14-2-1606 of the Arizona Administrative Code.

1.44 e-Tag:

An electronic tag associated with a schedule in accordance with the requirements of the North American Electric Reliability Corporation (NERC), the Western Electricity Coordinating Council (WECC), or the North American Energy Standards Board (NAESB).

1.45 Facilities Study:

An engineering study conducted by APS to determine the required modifications to APS' Transmission System, including the cost and scheduled completion date for such modifications, that will be required to provide the requested transmission service.

1.46 Firm Point-To-Point Transmission Service:

Transmission Service under this Tariff that is reserved and/or scheduled between specified Points of Receipt and Delivery pursuant to Part II of this Tariff.

1.47 Flexible Ramping Product:

The costs associated with meeting a requirement, established by the MO, that may be enforced in the MO's EIM optimization to ensure that the unit commitment or dispatch of resources for intervals beyond the applicable commitment or dispatch period provide for the availability of required capacity for dispatch in subsequent real-time dispatch intervals.

1.47A Flexible Ramping Forecast Movement:

A resource's change in forecasted output between market intervals for purposes of the Flexible Ramping Product.

1.47B Flexible Ramping Uncertainty Award:

A resource's award for meeting a Flexible Ramping Uncertainty Requirement under the Flexible Ramping Product.

1.47C Flexible Ramping Uncertainty Requirement:

Flexible ramping capability to meet the Flexible Ramping Product requirements established by the MO.

1.48 Forecast Data:

Information provided by Transmission Customers regarding expected load (as determined pursuant to Section 4.2.4.3 of Attachment Q of this Tariff), generation, Intrachange, and Interchange, as specified in the APS EIM Business Practice. Forecast Data comprise the Transmission Customer Base Schedule that is used by the APS EIM Entity as the baseline by which to measure Imbalance Energy for purposes of EIM settlement.

1.49 Good Utility Practice:

Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region, including those practices required by Federal Power Act section 215(a)(4).

1.50 Imbalance Energy:

The deviation of supply or demand from the Transmission Customer Base Schedule, positive or negative, as measured by metered generation, metered load, or real-time Interchange schedules.

1.51 Instructed Imbalance Energy (IIE):

There are two categories of IIE which are settled by the APS EIM Entity depending on the nature and timing of the energy in either the FMM (Fifteen Minute Market), or RTD (Real-Time Dispatch): (1) FMM (15-minute) is the portion of Imbalance Energy resulting from the difference between the resource component of the Transmission Customer Base Schedule and the energy, if any, from the Manual Dispatch, EIM Available Balancing Capacity dispatch or physical changes in the output from resources incorporated by the MO into the FMM, and (2) RTD (5-minute) IIE is the portion of Imbalance Energy resulting from the difference between the FFM schedule, if any, from the Manual Dispatch, EIM Available Balancing Capacity dispatch, or physical changes in the output from resources incorporated by the MO into the RTD.

1.52 Interchange:

E-Tagged energy that transfers title from or to APS's BAA or other BAAs, not including EIM Transfers.

1.53 Interconnection Facilities:

All facilities that must be constructed in order to interconnect a generation facility, whether owned by an APS affiliate or non-affiliate generation facility, to the Transmission System.

1.54 Interconnection Study:

A study to determine all equipment and facilities needed in order to interconnect a generation facility to the Transmission System, including potential upgrades to the Transmission System that can be identified absent any request for Transmission Service.

1.55 Intermittent Resource:

An intermittent resource, for the limited purpose of Attachment Q, is an electric generator that is not dispatchable and cannot store its fuel source and therefore cannot respond to changes in system demand or respond to transmission security constraints.

1.56 Interruption:

A reduction in non-firm transmission service due to economic reasons pursuant to Section 14.7.

1.57 Intrachange:

E-Tagged energy that transfers title within APS's BAA, not including real-time actual energy flows associated with EIM Dispatch Instructions.

1.58 Load Aggregation Point (LAP):

A set of Pricing Nodes that is used for the submission of bids and settlement of demand in the EIM.

1.59 Load Ratio Share:

Ratio of a Transmission Customer's Network Load to APS' total load computed in accordance with Sections 34.2 and 34.3 of the Network Integration Transmission Service under Part III of the Tariff and calculated on a 4 Summer month (June through September) rolling average basis.

1.60 Load Shedding:

The systematic reduction of system demand by temporarily decreasing load in response to transmission system or area capacity shortages, system instability, or voltage control considerations under Part III or Part IV of the Tariff.

1.61 Locational Marginal Price (LMP):

The marginal cost ($/MWh) of serving the next increment of demand at that PNode consistent with existing transmission constraints and the performance characteristics of resources.

1.62 Long-Term Firm Point-To-Point Transmission Service:

Firm Point-To-Point Transmission Service under Part II of the Tariff with a term of one year or more.

1.63 Manual Dispatch:

An operating order issued by the APS EIM Entity to a Transmission Customer with an APS EIM Participating Resource or a Non-Participating Resource in APS's BAA, outside of the EIM optimization, when necessary to address reliability or operational issues in

APS's BAA that the EIM is not able to address through economic dispatch and congestion management.

1.64 Market Operator (MO):

CAISO, as the entity responsible for operation, administration, settlement, and oversight of the EIM.

1.65 Market Price Proxy:

The published day ahead InterContinental Exchange ("ICE") Electricity Price Index for the applicable hour. If the Market Price Proxy hourly pricing data set out above is not available from ICE for a given hour, pricing data from another published source for the same hour and location shall be used or, if no such alternative published data is available, the applicable ICE index from one or more hours proximate to (either prior or subsequent to) the hour without available data and with the same hour characteristics shall be used in a commercially reasonable manner to estimate the missing pricing data.

1.66 Measured Demand:

Includes (1) metered load volumes pursuant to this Tariff, in APS's BAA, plus (2) e-Tagged export volumes from the APS BAA (excluding Dynamic Schedules that support EIM Transfers and exports that ultimately serve load in APS BAA).

1.67 Metered Demand:

Metered load volumes pursuant to this Tariff, in APS's BAA.

1.68 MO Tariff:

Those portions of the MO's approved tariff, as such tariff may be modified from time to time, that specifically apply to the operation, administration, settlement, and oversight of the EIM.

1.69 Native Load Customers:

The wholesale and retail power customers of APS on whose behalf APS, by statute, franchise, regulatory requirement, or contract, has undertaken an obligation to construct and operate APS' system to meet the reliable electric needs of such customers.

1.70 Network Customer:

An entity receiving transmission service pursuant to the terms of APS' Network Integration Transmission Service under Part III or Part IV of the Tariff.

1.71 Network Integration Transmission Service:

The transmission service provided under Part III of the Tariff.

1.72 Network Load:

The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer's Network Load shall include all load served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but may not designate only part of the load at a discrete Point of Delivery. Where an Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.

1.73 Network Operating Agreement:

An agreement that contains the terms and conditions under which the Network Customer shall operate its facilities and the technical and operational matters associated with the implementation of Network Integration Transmission Service under Part III of the Tariff.

1.74 Network Operating Committee:

A group made up of representatives from the Network Customer(s) and APS established to coordinate operating criteria and other technical considerations required for implementation of Network Integration Transmission Service under Part III of this Tariff.

1.75 Network Resource:

Any designated generating resource owned, purchased, leased, or scheduled by a Network Customer or Scheduling Coordinator under the Network Integration Transmission Service Tariff or the Retail Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet, on a non-interruptible basis, the Network Load of the Network Customer or the Retail Network Load of a Scheduling Coordinator except for purposes of fulfilling obligations under a reserve sharing program or output associated with an EIM Dispatch Instruction.

1.76 Network Upgrades:

Modifications or additions to transmission-related facilities that are integrated with and support APS' overall Transmission System for the general benefit of all users of such Transmission System.

1.77 Non-Firm Point-To-Point Transmission Service:

Point-To-Point Transmission Service under the Tariff that is reserved and scheduled on an as-available basis and is subject to Curtailment or Interruption as set forth in Section 14.7 under Part II of this Tariff. Non-Firm Point-To-Point Transmission Service is available on a stand-alone basis for periods ranging from one hour to one month.

1.78 Non-Firm Sale:

An energy sale for which receipt or delivery may be interrupted for any reason or no reason, without liability on the part of either the buyer or seller.

1.79 Off-Peak Hours:

All hours other than On-Peak Hours.

1.80 On-Peak Hours:

The On-Peak Hours are the hours during the on-peak period. The on-peak period is Monday through Saturday, beginning the hour ending 0700 through the hour ending 2200, Pacific Prevailing Time, excluding NERC recognized holidays. When any of these holidays fall on a Sunday, the following day will be recognized as the holiday.

1.81 Open Access Same-Time Information System (OASIS):

The information system and standards of conduct contained in Part 37 of the Commission's regulations and all additional requirements implemented by subsequent Commission orders dealing with OASIS.

1.82 Operating Day:

The day when the EIM runs and energy is supplied to load.

1.83 Palo Verde/Hassayampa Common Bus:

The Palo Verde Switchyard and the Hassayampa Switchyard (including the string bus facilities connecting with the Palo Verde Switchyard). The Palo Verde Switchyard and the Hassayampa Switchyard will be considered as a single Point of Receipt and a single Point of Delivery for purposes of this tariff.

1.84 Part I:

Tariff Definitions and Common Service Provisions contained in Sections 2 through 12.

1.85 Part II:

Tariff Sections 13 through 27 pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.86 Part III:

Sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.87 Part IV:

Sections 36 through 44 pertaining to Retail Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.88 Parties:

APS and the Transmission Customer receiving service under the Tariff.

1.89 Point(s) of Delivery:

Point(s) on APS' Transmission System where capacity and energy transmitted by APS will be made available to the Receiving Party under Part II of the Tariff. The Point(s) of Delivery shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

1.90 Point(s) of Receipt:

Point(s) of interconnection on APS' Transmission System where capacity and energy will be made available to APS by the Delivering Party under Part II of the Tariff. The Point(s) of Receipt shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

1.91 Point-To-Point Transmission Service:

The reservation and transmission of capacity and energy on either a firm or non-firm basis from the Point(s) of Receipt to the Point(s) of Delivery under Part II of the Tariff.

1.92 Power Purchaser:

The entity that is purchasing the capacity and energy to be transmitted under the Tariff.

1.93 Pre-Confirmed Application:

An Application that commits the Eligible Customer to execute a Service Agreement upon receipt of notification that the Transmission Provider can provide the requested Transmission Service.

1.94 Pmax:

The maximum capacity of a generating unit.

1.95 Pricing Node (PNode):

A single network node or subset of network nodes where a physical injection or withdrawal is modeled by the MO and for which the MO calculates an LMP that is used for financial settlements by the MO and the APS EIM Entity.

1.96 Protocols Manual:

The operating and pricing protocols developed under the aegis of the AZ ISA Operating Committee. The manual addresses the responsibilities and interaction between the AZ ISA, the transmission providers who are Arizona control area operators that are members of the AZ ISA, and Scheduling Coordinators regarding provision of Retail Network Integration Transmission Service. Attached hereto as Attachment L.

1.97 Receiving Party:

The entity receiving the capacity and energy transmitted by APS to Point(s) of Delivery.

1.98 Regional Transmission Group (RTG):

A voluntary organization of transmission owners, transmission users and other entities approved by the Commission to efficiently coordinate transmission planning (and expansion), operation and use on a regional (and interregional) basis.

1.99 Reserved Capacity:

The maximum amount of capacity and energy that APS agrees to transmit for the Transmission Customer over APS' Transmission System between the Point(s) of Receipt and the Point(s) of Delivery under Part II of the Tariff. Reserved Capacity shall be expressed in terms of whole megawatts on a sixty (60) minute interval (commencing on the clock hour) basis.

1.100 Resource Plan:

The combination of load, resource and Interchange components of the Transmission Customer Base Schedule, ancillary services plans of the APS EIM Entity, and bid ranges submitted by APS EIM Participating Resources and EIM Available Balancing Capacity of BAARs.

1.101 Retail Network Customer:

The Scheduling Coordinator responsible for Retail Network Integration Transmission Service needed to deliver power and energy to aggregated direct access retail customer loads being served under the Arizona Retail Competition Program.

1.102 Retail Network Integration Transmission Service:

The transmission service provided under Part IV of the Tariff in order to implement transmission service required as part of the Arizona Retail Electric Competition Program being implemented under the auspices of the Arizona Corporation Commission.

1.103 Retail Network Load:

The load that a Scheduling Coordinator designates for Retail Network Integration Transmission Service under Part IV of the Tariff. The Retail Network Load of the Scheduling Coordinator's Customers shall include all load served by the output of any Network Resources designated by the Scheduling Coordinator. A Scheduling

Coordinator may elect to designate less than the total load of its customers as Retail Network Load, but may not designate only part of the load at a discrete point of delivery. Where a Scheduling Coordinator has elected not to designate a particular load at discrete points of delivery as Retail Network Load, the Scheduling Coordinator is responsible for making separate arrangements under Part II of APS' Tariff for any point-to-point transmission service that may be necessary for such non-designated load.

1.104 Retail Network Operating Agreement:

An agreement that contains the terms and conditions under which the Scheduling Coordinator shall coordinate the technical and operational matters associated with the implementation of Retail Network Integration Transmission Service under Part IV of the Tariff. Issues dealing with operational considerations shall be consistent with the protocols contained in the Protocols Manual as contained in Attachment L.

1.105 Retail Network Operating Committee:

A group made up of representatives from the Scheduling Coordinator(s) and APS established to coordinate operating criteria and other technical considerations required for implementation of the Retail Network Integration Transmission Service under Part IV of this Tariff. Issues dealing with operational considerations shall be consistent with the protocols contained in the Protocols Manual as contained in Attachment L.

1.106 Scheduling Coordinator ("SC"):

Any individual or entity securing and/or scheduling Retail Network Integration Transmission Service and ancillary services on APS' Transmission System in order to deliver power and energy to Retail Network Loads. All Scheduling Coordinators must demonstrate to APS that it is capable of performing the duties described in R14-2-1609(H) of the Arizona Administrative Code regarding Retail Electric Competition.

1.107 Scheduling Coordinator's Customers:

Those retail customers of APS or an ESP on whose behalf the Scheduling Coordinator secures and/or schedules Retail Network Integration Transmission Service and ancillary services on APS' Transmission System in order to deliver supplied power and energy to their loads.

1.108 Service Agreement:

The initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and APS for service under the Tariff.

1.109 Service Commencement Date:

The date APS begins to provide service pursuant to the terms of a Service Agreement, or the date APS begins to provide service in accordance with Section 15.3, Section 29.1, or Section 37.1 under the Tariff.

1.110 Short-Term Firm Point-To-Point Transmission Service:

Firm Point-To-Point Transmission Service under Part II of the Tariff with a term of less than one year.

1.111 Substitute Designated Network Resource:

A resource not previously designated by a Network Customer under Section 29.2 or Section 37.2 that (1) goes to physical delivery to serve the Network Customer's Network Load or Retail Network Load, (2) solely as a result of a Bookout involving a Network Resource executed during the day prior to commencement of service, and (3) uses the transmission path previously reserved for the booked out Network Resource pursuant to Section 29 or Section 37 of the Tariff to deliver power to the Network Customer's Network Load or Retail Network Load.

1.112 System Condition:

A specified condition on the Transmission Provider's system or on a neighboring system, such as a constrained transmission element or flowgate, that may trigger Curtailment of Long-Term Firm Point-to-Point Transmission Service using the curtailment priority pursuant to Section 13.6. Such conditions must be identified in the Transmission Customer's Service Agreement.

1.113 Standard Offer Customers:

Retail customers within APS' service territory who choose not to enter the competitive marketplace as defined in the Arizona Retail Competition Program.

1.114 System Impact Study:

An assessment by APS of (i) the adequacy of the Transmission System to accommodate a request for either Firm Point-To-Point Transmission Service or Network Integration Transmission Service and (ii) whether any additional costs may be incurred in order to provide transmission service.

1.115 System Incremental Cost ("SIC"):

Any increase in cost incurred by APS as a result of performing Energy Imbalance Service or Generator Energy Imbalance Service requiring the utilization of dispatchable generation or purchases from third-parties. SIC shall be computed as the weighted average price of the highest-cost dispatchable generation resource and/or third-party purchase made by the Transmission Provider's real-time operators incurred by APS up to an amount of energy equal to the system net energy imbalance. The cost of SIC for both the generation and purchased power components shall be determined by the Transmission Provider's real-time operator on an hourly basis at the time the real-time operator makes a decision on the source of the energy supply.

1.116 Tariff:

Arizona Public Service Company's Open Access Transmission Tariff.

1.117 Third-Party Sale:

Any sale for resale in interstate commerce to a Power Purchaser that is not designated as part of Network Load under the Network Integration Transmission Service or Retail Network Load under Retail Network Integration Transmission Service.

1.118 Transmission Customer:

Any Eligible Customer (or its Designated Agent) that (i) executes a Service Agreement, or (ii) requests in writing that APS file with the Commission, a proposed unexecuted Service Agreement to receive transmission service under Part II of the Tariff. This term is used in the Part I Common Service Provisions to include customers receiving transmission service under Part II, Part III and Part IV of this Tariff.

1.119 Transmission Customer Base Schedule:

An energy schedule that provides Transmission Customer hourly-level Forecast Data and other information that is used by the APS EIM Entity as the baseline by which to measure Imbalance Energy or purposes of EIM settlement. The term "Transmission Customer Base Schedule" as used in this Tariff may refer collectively to the four components of such schedule (load, resource, and Intrachange, Interchange) determined pursuant to Section 4.2.4 of Attachment Q or any individual components of such schedule.

1.120 Transmission Provider:

Arizona Public Service Company ("APS").

1.121 Transmission Provider's Monthly Transmission System Peak:

The maximum firm usage of APS' Transmission System in a calendar month.

1.122 Transmission Service:

Point-To-Point Transmission Service provided under Part II of the Tariff on a firm and non-firm basis.

1.123 Transmission System:

The facilities owned, controlled or operated by APS that are used to provide transmission service under Part II, Part III and Part IV of the Tariff.

1.124 Umbrella Service Agreement

An executed agreement allowing a Transmission Customer to purchase transmission service from the Transmission Provider in amounts and for prices as posted on the Transmission Provider's OASIS for a term less than one year in length.

1.125 Uninstructed Imbalance Energy (UIE):

For Non-Participating Resources in an EIM Entity BAA, the MO shall calculate UIE as either (1) the algebraic difference between the resource's 5-minute meter data and the

resource component of the Transmission Customer Base Schedule, or, if applicable, (2) the 5-minute meter data and any Manual Dispatch, EIM Available Balancing Capacity dispatch or FMM schedules. For Transmission Customers with load in the APS EIM Entity's BAA, the APS EIM Entity shall calculate UIE as the algebraic difference between the Transmission Customer's actual hourly load and the Transmission Customer Base Schedule.

1.126 Variable Energy Resource:

A device for the production of electricity within APS's BAA that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator.

1.127 WECC:

The Western Electricity Coordinating Council formally known as the Western Systems Coordinating Council (WSCC).

1.128 Working Day:

Monday through Friday, excluding NERC-recognized holidays and the day after Thanksgiving.

2 Initial Allocation and Renewal Procedures

2.1 Initial Allocation of Available Transfer Capability:

For purposes of determining whether existing capability on APS' Transmission System is adequate to accommodate a request for firm service under this Tariff, all Completed Applications for new firm transmission service received during the initial sixty (60) day period commencing with the effective date of the Tariff will be deemed to have been filed simultaneously. A lottery system conducted by an independent party shall be used to assign priorities for Completed Applications filed simultaneously. All Completed Applications for firm transmission service received after the initial sixty (60) day period shall be assigned a priority pursuant to Section 13.2.

2.2 Reservation Priority For Existing Firm Service Customers:

Existing firm service customers (wholesale requirements and transmission-only, with a contract term of five years or more), have the right to continue to take transmission service from APS when the contract expires, rolls over or is renewed. This transmission reservation priority is independent of whether the existing customer continues to purchase capacity and energy from APS or elects to purchase capacity and energy from another supplier. If at the end of the contract term, APS' Transmission System cannot accommodate all of the requests for transmission service, the existing firm service customer must agree to accept a contract term at least equal to a competing request by any new Eligible Customer and to pay the current just and reasonable rate, as approved by the Commission, for such service; provided that, the firm service customer shall have a right of first refusal at the end of such service only if the new contract is for five years or more. The existing firm service customer must provide notice to APS whether it will exercise its right of first refusal no less than one year prior to the expiration date of its transmission service agreement. This transmission reservation priority for existing firm service customers is an ongoing right that may be exercised at the end of all firm contract terms of five years or longer. Service agreements subject to a right of first refusal entered into prior to September 8, 2008 or associated with a transmission service request received prior to July 13, 2007, unless terminated, will become subject to five year/one year requirement on the first rollover date after September 8, 2008; provided that, the one-year notice requirement shall apply to such service agreements with five years or more left in their terms as of September 8, 2008.

3 Ancillary Services

Ancillary Services are needed with transmission service to maintain reliability within and among the Control Areas affected by the transmission service. APS is required to provide (or offer to arrange with the local Control Area operator as discussed below), and the Transmission Customer is required to purchase, the following Ancillary Services (i) Scheduling, System Control and Dispatch, and (ii) Reactive Supply and Voltage Control from Generation or Other Sources.

APS is required to offer to provide (or offer to arrange with the local Control Area operator as discussed below) the following Ancillary Services only to the Transmission Customer serving load within APS' Control Area (i) Regulation and Frequency Response, (ii) Energy Imbalance, (iii) Operating Reserve - Spinning, and (iv) Operating Reserve – Supplemental. The Transmission Customer serving load within APS' Control Area is required to acquire these Ancillary Services, whether from APS, from a third party, or by self-supply.

The Transmission Provider is required to provide (or offer to arrange with the local Control Area Operator as discussed below), to the extent it is physically feasible to do so from its resources or from resources available to it, Generator Imbalance Service when Transmission Service is used to deliver energy from a generator located within its Control Area. The Transmission Customer using Transmission Service to deliver energy from a generator located within the Transmission Provider's Control Area is required to acquire Generator Imbalance Service, whether from the Transmission Provider, from a third party, or by self-supply.

The Transmission Customer may not decline APS' offer of Ancillary Services unless it demonstrates that it has acquired the Ancillary Services from another source. The Transmission Customer must list in its Application which Ancillary Services it will purchase from APS. A Transmission Customer that exceeds its firm reserved capacity at any Point of Receipt or Point of Delivery or an Eligible Customer that uses Transmission Service at a Point of Receipt or Point of Delivery that it has not reserved is required to pay for all of the Ancillary Services identified in this section that were provided by the Transmission Provider associated with the unreserved service. The Transmission Customer or Eligible Customer will pay for Ancillary Services based on the amount of transmission service it used but did not reserve.

If APS is a public utility providing transmission service but is not a Control Area operator, it may be unable to provide some or all of the Ancillary Services. In this case, APS can fulfill its obligation to provide Ancillary Services by acting as the Transmission Customer's agent to secure these Ancillary Services from the Control Area operator. The Transmission Customer may elect to (i) have APS act as its agent, (ii) secure the Ancillary Services directly from the Control Area operator, or (iii) secure the Ancillary Services (discussed in Schedules 3, 4, 5, 6 and 10) from a third party or by self-supply when technically feasible.

APS shall specify the rate treatment and all related terms and conditions in the event of an unauthorized use of Ancillary Services by the Transmission Customer.The specific Ancillary Services, prices and/or compensation methods are described on the Schedules that are attached to and made a part of the Tariff. Three principal requirements apply to discounts for Ancillary Services provided by APS in conjunction with its provision of transmission service as follows: (1) any offer of a discount made by APS must be announced to all Eligible Customers solely by posting on the OASIS, (2) any customer-initiated requests for discounts (including requests for use by one's wholesale merchant or an Affiliate's use) must occur solely by posting on the OASIS, and (3) once a discount is negotiated, details must be immediately posted on the OASIS. A discount agreed upon for an Ancillary Service must be offered for the same period to all Eligible Customers on APS' system. Sections 3.1 through 3.7 below list the seven Ancillary Services.

3.1 Scheduling, System Control and Dispatch Service:

The rates and/or methodology are described in Schedule 1.

3.2 Reactive Supply and Voltage Control from Generation or Other Sources Service:

The rates and/or methodology are described in Schedule 2.

3.3 Regulation and Frequency Response Service:

Where applicable the rates and/or methodology are described in Schedule 3.

3.4 Energy Imbalance Service:

Where applicable the rates and/or methodology are described in Schedule 4.

3.5 Operating Reserve - Spinning Reserve Service:

Where applicable the rates and/or methodology are described in Schedule 5.

3.6 Operating Reserve - Supplemental Reserve Service:

Where applicable the rates and/or methodology are described in Schedule 6.

3.7 Generator Imbalance Service:

Where applicable the rates and/or methodology are described in Schedule 10.

4 Other Services

4.1 Other Transmission Services:

4.1.1 Local Distribution Facilities Wheeling Service:

Service is only applicable to wholesale customers requiring such service. The rates and/or methodology are described in Schedule 9.

5 Open Access Same Time Information System (OASIS)

5.1 Terms and Conditions

Terms and conditions regarding Open Access Same-Time Information System and standards of conduct are set forth in 18 CFR § 37 of the Commission's regulations (Open Access Same-Time Information System and Standards of Conduct for Public Utilities) and 18 C.F.R. § 38 of the Commission's regulations (Business Practice Standards and Communication Protocols for Public Utilities). In the event available transfer capability as posted on the OASIS is insufficient to accommodate a request for firm transmission service, additional studies may be required as provided by this Tariff pursuant to Sections 19, 32 and 40.

The Transmission Provider shall post on OASIS and its public website an electronic link to all rules, standards and practices that (i) relate to the terms and conditions of transmission service, (ii) are not subject to a North American Energy Standards Board (NAESB) copyright restriction, and (iii) are not otherwise included in this Tariff. The Transmission Provider shall post on OASIS and on its public website an electronic link to the NAESB website where any rules, standards and practices that are protected by copyright may be obtained. The Transmission Provider shall also post on OASIS and its public website an electronic link to a statement of the process by which the Transmission Provider shall add, delete or otherwise modify the rules, standards and practices that are not included in this tariff. Such process shall set forth the means by which the Transmission Provider shall provide reasonable advance notice to Transmission Customers and Eligible Customers of any such additions, deletions or modifications, the associated effective date, and any additional implementation procedures that the Transmission Provider deems appropriate.

5.2 Incorporation by Reference of the Standards Promulated by the Wholesale Electric Quadrant of the North American Energy Standards Board

Transmission Provider hereby incorporates by reference the following standards promulgated by the Wholesale Electric Quadrant ("WEQ") of the North American Energy Standards Board ("NAESB"):

- WEQ-000, Abbreviations, Acronyms, and Definition of Terms, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Oct. 4, 2012, Nov. 28, 2012 and Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013) except that Transmission Provider offers only those transmission service products specifically identified in Attachment M - Point-to-Point Transmission Service Products Offered by APS;

- WEQ-001, Open Access Same-Time Information System (OASIS), OASIS Version 2.0, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013) excluding Standards 001-9.5, 001-10.5, 001-14.1.3, 001-15.1.2 and 001-106.2.5;

- WEQ-002, Open Access Same-Time Information System (OASIS) Business Practice Standards and Communication Protocols (S&CP), OASIS Version 2.0, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Nov. 28, 2012 and Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013);

- WEQ-003, Open Access Same-Time Information System (OASIS) Data Dictionary Business Practice Standards, OASIS Version 2.0, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013).

- WEQ-004, Coordinate Interchange, WEQ Version 003, July 31, 2012 (with Final Action ratified on December 28, 2012);

- WEQ-005, Area Control Error (ACE) Equation Special Cases, WEQ Version 003, July 31, 2012;

- WEQ-006, Manual Time Error Correction, WEQ Version 003, July 31, 2012;

- WEQ-007, Inadvertent Interchange Payback, WEQ Version 003, July 31, 2012;

- WEQ-008, Transmission Loading Relief (TLR) - Eastern Interconnection, WEQ Version 003, July 31, 2012 (with minor corrections applied November 28, 2012);

- WEQ-011, Gas / Electric Coordination, WEQ Version 003, July 31, 2012;

- WEQ-012, Public Key Infrastructure (PKI), WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Oct. 4, 2012); and

- WEQ-013, Open Access Same-Time Information System (OASIS) Implementation Guide, OASIS Version 2.0, WEQ Version 003, July 31, 2012, as modified by NAESB final actions ratified on Dec. 28, 2012 (with minor corrections applied Nov. 26, 2013).

- WEQ-015, Measurement and Verification of Wholesale Electricity Demand Response, WEQ Version 003, July 31, 2012; and

- WEQ-021, Measurement and Verification of Energy Efficiency Products, WEQ Version 003, July 31, 2012.

6 Reciprocity

A Transmission Customer receiving transmission service under this Tariff agrees to provide comparable transmission service that it is capable of providing to APS on similar terms and conditions over facilities used for the transmission of electric energy owned, controlled or operated by the Transmission Customer and over facilities used for the transmission of electric energy owned, controlled or operated by the Transmission Customer's corporate Affiliates. A Transmission Customer that is a member of or takes transmission service from, a power pool, Regional Transmission Group, Regional Transmission Organization (RTO), Independent System Operator (ISO) or other transmission organization approved by the Commission for the operation of transmission facilities also agrees to provide comparable transmission service to the transmission-owning members of such power pool and Regional Transmission Group, RTO, ISO or other transmission organization on similar terms and conditions over facilities used for the transmission of electric energy owned, controlled or operated by the Transmission Customer and over facilities used for the transmission of electric energy owned, controlled or operated by the Transmission Customer's corporate Affiliates.

This reciprocity requirement applies not only to the Transmission Customer that obtains transmission service under the Tariff, but also to all parties to a transaction that involves the use of transmission service under the Tariff, including the power seller, buyer and any intermediary, such as a power marketer. This reciprocity requirement also applies to any Eligible Customer that owns, controls or operates transmission facilities that uses an intermediary, such as a power marketer, to request transmission service under the Tariff. If the Transmission Customer does not own, control or operate transmission facilities, it must include in its Application a sworn statement of one of its duly authorized officers or other representatives that the purpose of its Application is not to assist an Eligible Customer to avoid the requirements of this provision.

7 Billing and Payment

7.1 Billing Procedure:

Within a reasonable time after service is provided, APS shall submit an invoice to the Transmission Customer for the charges for all services furnished under the Tariff. Notwithstanding the prior sentence, the Transmission Provider may submit invoices for periods less than a full month. The invoice shall be paid by the Transmission Customer within twenty (20) days of receipt. All payments shall be made in immediately available funds payable to APS, or by wire transfer to a bank named by APS.

7.2 Interest on Unpaid Balances:

Interest on any unpaid amounts (including amounts placed in escrow) shall be calculated in accordance with the methodology specified for interest on refunds in the Commission's regulations at 18 CFR § 35.19a(a)(2)(iii). Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment. When payments are made by mail, bills shall be considered as having been paid on the date of receipt by APS.

7.3 Customer Default:

In the event the Transmission Customer fails, for any reason other than a billing dispute as described below, to make payment to APS on or before the due date as described above, and such failure of payment is not corrected within thirty (30) calendar days after APS notifies the Transmission Customer to cure such failure, a default by the Transmission Customer shall be deemed to exist. Upon the occurrence of a default, APS may initiate a proceeding with the Commission to terminate service but shall not terminate service until the Commission so approves any such request. In the event of a billing dispute between APS and the Transmission Customer, APS will continue to provide service under the Service Agreement as long as the Transmission Customer (i) continues to make all payments not in dispute, and (ii) pays into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If the Transmission Customer fails to meet these two requirements for continuation of service, then APS may provide notice to the Transmission Customer of its intention to suspend service in sixty (60) days, in accordance with Commission policy.

8 Accounting for the Transmission Provider's Use of the Tariff

APS shall record the following amounts, as outlined below.

8.1 Transmission Revenues:

Include in a separate operating revenue account or subaccount the revenues it receives from Transmission Service when making Third-Party Sales under Part II of the Tariff.

8.2 Study Costs and Revenues:

Include in a separate transmission operating expense account or subaccount, costs properly chargeable to expense that are incurred to perform any System Impact Studies or Facilities Studies which APS conducts to determine if it must construct new transmission facilities or upgrades necessary for its own uses, including making Third-Party Sales under the Tariff; and include in a separate operating revenue account or subaccount the revenues received for System Impact Studies or Facilities Studies performed when such amounts are separately stated and identified in the Transmission Customer's billing under the Tariff.

9 Regulatory Filings

Nothing contained in the Tariff or any Service Agreement shall be construed as affecting in any way the right of APS to unilaterally make application to the Commission for a change in rates, terms and conditions, charges, classification of service, Service Agreement, rule or regulation under Section 205 of the Federal Power Act and pursuant to the Commission's rules and regulations promulgated thereunder.

Nothing contained in the Tariff or any Service Agreement shall be construed as affecting in any way the ability of any Party receiving service under the Tariff to exercise its rights under the Federal Power Act and pursuant to the Commission's rules and regulations promulgated thereunder.

10 Force Majeure and Indemnification

10.1 Force Majeure:

An event of Force Majeure means any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any Curtailment, order, regulation or restriction imposed by governmental military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include an act of negligence or intentional wrongdoing. Neither APS nor the Transmission Customer will be considered in default as to any obligation under this Tariff if prevented from fulfilling the obligation due to an event of Force Majeure. However, a Party whose performance under this Tariff is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Tariff.

10.2 Indemnification:

The Transmission Customer shall at all times indemnify, defend, and save APS harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from APS' performance of its obligations under this Tariff on behalf of the Transmission Customer, except in cases of negligence or intentional wrongdoing by APS. Provided, however, that the standard of liability for the actions of the APS EIM Entity performed consistent with Attachment Q of this Tariff shall be gross negligence or intentional wrong doing.

11 Creditworthiness

The Transmission Provider will specify its Creditworthiness procedures in Attachment I.

12 Dispute Resolution Procedures

Disputes under this Tariff between APS and an Eligible Customer who is a member of the WECC will be resolved in accordance with the disputes resolution provisions contained in the WECC Business and Governance Guidelines and Policies found at www.wecc.biz; otherwise disputes under this Tariff will be resolved in accordance with the provisions of this Section 12.

12.1 Internal Dispute Resolution Procedures:

Any dispute between a Transmission Customer and APS involving transmission service under the Tariff (excluding applications for rate changes or other changes to the Tariff, or to any Service Agreement entered into under the Tariff, which shall be presented directly to the Commission for resolution) shall be referred to a designated senior representative of APS and a senior representative of the Transmission Customer for resolution on an informal basis as promptly as practicable. In the event the designated representatives are unable to resolve the dispute within thirty (30) days or such other period as the Parties may agree upon by mutual agreement, such dispute may be submitted to peer review or mediation or to arbitration and resolved in accordance with the procedures set forth below.

12.2 External Arbitration Procedures:

Any arbitration initiated under the Tariff shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) days of the referral of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall generally conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association and any applicable Commission regulations or Regional Transmission Group rules.

12.3 Arbitration Decisions:

Unless otherwise agreed, the arbitrator(s) shall render a decision within ninety (90) days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the Tariff and any Service Agreement entered into under the Tariff and shall have no power to modify or change any of the above in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act and/or the Administrative Dispute Resolution Act. The final decision

of the arbitrator must also be filed with the Commission if it affects jurisdictional rates, terms and conditions of service or facilities.

12.4 Costs:

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable:

12.4.1 the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or

12.4.2 one half the cost of the single arbitrator jointly chosen by the Parties.

12.5 EIM Billing Disputes

12.5.1 Disputes between the APS EIM Entity and a Transmission Customer or Interconnection Customer Related to Allocation of Charges or Payments from the MO:

To the extent a dispute arises between the APS EIM Entity and a Transmission Customer or Interconnection Customer regarding the APS EIM Entity's implementation of this Tariff's provisions regarding the manner in which the APS EIM Entity allocates charges or payments from the MO, the parties shall follow the dispute resolution procedures in Sections 12.1 to 12.4 of this Tariff.

12.5.2 Disputes between the MO and APS EIM Participating Resource Scheduling Coordinators Related to EIM Charges and Payments directly from the MO:

Disputes involving settlement statements between the MO and APS EIM Participating Resource Scheduling Coordinators shall be resolved in accordance with the dispute resolution process of the MO Tariff. A Transmission Customer with an APS EIM Participating Resource shall provide notice to the APS EIM Entity if it raises a dispute with the MO, and such notice shall be provided in accordance with the process set forth in the APS EIM BP.

12.5.3 Disputes between the MO and the APS EIM Entity:

The APS EIM Entity may raise disputes with the MO regarding the settlement statements it receives from the MO in accordance with the process specified in the MO Tariff. If the APS EIM Entity submits a dispute it shall provide notice to Transmission Customers in accordance with the APS EIM BP.

12.5.4 Disputes Regarding MO Charges or Payments to the APS EIM Entity Raised by Transmission Customers or Interconnection Customers:

To the extent a dispute arises regarding a MO charge or a MO payment to the APS EIM Entity that is subsequently charged or paid by the APS EIM Entity to a Transmission Customer or an Interconnection Customer, and such Transmission Customer or Interconnection Customer wishes to raise a dispute with the MO, the APS EIM Entity shall file a dispute on behalf of such Transmission Customer or Interconnection Customer in accordance with the MO Tariff and work with the Transmission Customer or the Interconnection Customer to resolve the dispute pursuant to the process specified in the MO Tariff.

12.6 Rights Under The Federal Power Act:

Nothing in this section shall restrict the rights of any party to file a Complaint with the Commission under relevant provisions of the Federal Power Act.

12A Generator Imbalances:

An Interconnection Customer must pay generator imbalance charges in accordance with Schedule 10 of the APS Tariff.

12B Emergency Deviations:

Notwithstanding any other provision in this Tariff, in an Emergency, the Transmission Provider, in its capacity as a Balancing Authority pursuant to applicable reliability rules adopted under Section 215 of the Federal Power Act, may take whatever actions are necessary and may direct a Network Customer to take whatever actions are necessary to keep the system in operation. The Transmission Provider shall report to the Commission and post on its OASIS each Emergency that resulted in any deviation from the Tariff, within 24 hours of such deviation.

II. POINT-TO-POINT TRANSMISSION SERVICE

PREAMBLE

APS will provide Firm and Non-Firm Point-To-Point Transmission Service pursuant to the applicable terms and conditions of this Tariff. Point-To-Point Transmission Service is for the receipt of capacity and energy at designated Point(s) of Receipt and the transfer of such capacity and energy to designated Point(s) of Delivery.

13 Nature of Firm Point-To-Point Transmission Service

13.1 Term:

The minimum term of Firm Point-To-Point Transmission Service shall be onehour and the maximum term shall be specified in the Service Agreement.

13.2 Reservation Priority:

(i) Long-Term Firm Point-To-Point Transmission Service shall be available on a first-come, first-served basis *i.e.*, in the chronological sequence in which each Transmission Customer has requested service.

(ii) Reservations for Short-Term Firm Point-To-Point Transmission Service will be conditional based upon the length of the requested transaction or reservation. However, Pre-Confirmed Applications for Short-Term Point-to-Point Transmission Service will receive priority over earlier-submitted requests that are not Pre-Confirmed and that have equal or shorter duration. Among requests or reservations with the same duration and, as relevant, pre-confirmation status (pre-confirmed, confirmed, or not confirmed), priority will be given to an Eligible Customer's request or reservation that offers the highest price, followed by the date and time of the request or reservation.

(iii) If the Transmission System becomes oversubscribed, requests for service may preempt competing reservations up to the following conditional reservation deadlines: one hour before the commencement of hourly service, one Working Day before the commencement of daily service, one week before the commencement of weekly service, and one month before the commencement of monthly service. Before the conditional reservation deadline, if available transfer capability is insufficient to satisfy all requests and reservations, an Eligible Customer with a reservation for shorter term service or equal duration service and lower price has the right of first refusal to match any longer term request or equal duration service with a higher price before losing its reservation priority. A longer term competing request for Short-Term Firm Point-To-Point Transmission Service will be granted if the Eligible Customer with the right of first refusal does not agree to match the competing request within 24 hours (or earlier if necessary to comply with the scheduling deadlines provided in section 13.8) from being notified by APS of a longer-term competing request for Short-Term Firm Point-To-Point Transmission Service. When a longer duration request preempts multiple shorter duration reservations, the shorter duration reservations shall have simultaneous opportunities to exercise the right of first refusal. Duration, price and time of response will be used to determine the order by which the multiple shorter duration reservations will be able to exercise the right of first refusal. After the conditional reservation deadline, service will commence pursuant to the terms of Part II of the Tariff.

(iv) Firm Point-To-Point Transmission Service will always have a reservation priority over Non-Firm Point-To-Point Transmission Service under the Tariff. All Long-Term Firm Point-To-Point Transmission Service will have equal reservation priority with Native Load Customers and Network Customers. Reservation priorities for existing firm service customers are provided in Section 2.2.

13.3 Use of Firm Transmission Service by the Transmission Provider:

APS will be subject to the rates, terms and conditions of Part II of the Tariff when making Third-Party Sales under (i) agreements executed on or after July 9,1996, or (ii) agreements executed prior to the aforementioned date that the Commission requires to be unbundled, by the date specified by the Commission. APS will maintain separate accounting, pursuant to Section 8, for any use of the Point-To-Point Transmission Service to make Third-Party Sales.

13.4 Service Agreements:

APS shall offer a standard form Firm Point-To-Point Transmission Service Agreement (Attachment A) to an Eligible Customer when it submits a Completed Application for Long-Term Firm Point-To-Point Transmission Service. APS shall offer a standard form Firm Point-To-Point Transmission Service Agreement (Attachment A) to an Eligible Customer when it first submits a Completed Application for Short-Term Firm Point-To-Point Transmission Service pursuant to the Tariff. Executed Service Agreements that contain the information required under the Tariff shall be filed with the Commission in compliance with applicable Commission regulations. An Eligible Customer that uses Transmission Service at a Point of Receipt or Point of Delivery that it has not reserved and that has not executed a Service Agreement will be deemed, for purposes of assessing any appropriate charges and penalties, to have executed the appropriate Service Agreement. The Service Agreement shall, when applicable, specify any conditional curtailment options selected by the Transmission Customer. Where the Service Agreement contains conditional curtailment options and is subject to a biennial reassessment as described in Section 15.4, the Transmission Provider shall provide the Transmission Customer notice of any changes to the curtailment conditions no less than 90 days prior to the date for imposition of new curtailment conditions. Concurrent with such notice, the Transmission Provider shall provide the Transmission Customer with the reassessment study and a narrative description of the study, including the reasons for changes to the number of hours per year or System Conditions under which conditional curtailment may occur.

13.5 Transmission Customer Obligations for Facility Additions or Redispatch Costs:

In cases where APS determines that the Transmission System is not capable of providing Firm Point-To-Point Transmission Service without (1) degrading or impairing the reliability of service to Native Load Customers, Network Customers and other Transmission Customers taking Firm Point-To-Point Transmission Service, or (2) interfering with APS' ability to meet prior firm contractual commitments to others, APS will be obligated to expand or upgrade its Transmission System pursuant to the terms of Section 15.4. The Transmission Customer must agree to compensate APS for any necessary transmission facility additions pursuant to the terms of Section 27. To the extent APS can relieve any system constraint by redispatching APS' resources, it shall do so, provided that the Eligible Customer agrees to compensate APS pursuant to the terms of Section 27 and agrees to either (i) compensate the Transmission Provider for any necessary transmission facility additions or (ii) accept the service subject to a biennial reassessment by the Transmission Provider of redispatch requirements as described in Section 15.4. Any redispatch, Network Upgrade or Direct Assignment Facilities costs to be charged to the Transmission Customer on an incremental basis under the Tariff will be specified in the Service Agreement prior to initiating service.

13.6 Curtailment of Firm Transmission Service:

In the event that a Curtailment on APS' Transmission System, or a portion thereof, is required to maintain reliable operation of such system. Curtailments will be made on a non-discriminatory basis to the transaction(s) that effectively relieve the constraint. Transmission Provider may elect to implement such Curtailments pursuant to the Transmission Loading Relief procedures specified in Attachment N. If multiple transactions require Curtailment, to the extent practicable and consistent with Good Utility Practice, APS will curtail service to Network Customers and Transmission Customers taking Firm Point-To-Point Transmission Service on a basis comparable to the curtailment of service to APS' Native Load Customers. All Curtailments will be made on a non-discriminatory basis, however, Non-Firm Point-To-Point Transmission Service shall be subordinate to Firm Transmission Service. Long-Term Firm Point-to-Point Service subject to conditions described in Section 15.4 shall be curtailed with secondary service in cases where the conditions apply, but otherwise will be curtailed on a pro rate basis with other Firm Transmission Service. When APS determines that an electrical emergency exists on its Transmission System and implements emergency procedures to Curtail Firm Transmission Service, the Transmission Customer shall make the required reductions upon request of APS. However, APS reserves the right to Curtail, in whole or in part, any Firm Transmission Service provided under the Tariff when, in APS' sole discretion, an emergency or other unforeseen condition impairs or degrades the reliability of its Transmission System. APS will notify all affected Transmission Customers in a timely manner of any scheduled Curtailments. Transmission Provider shall take necessary measures to ensure reliability in APS's BAA in accordance with Section 6 of Attachment Q.

13.7 Classification of Firm Transmission Service:

13.7.1 The Transmission Customer taking Firm Point-To-Point Transmission Service may (1) change its Receipt and Delivery Points to obtain service on a non-firm basis consistent with the terms of Section 22.1 or (2) request a modification of the Points of Receipt or Delivery on a firm basis pursuant to the terms of Section 22.2.

13.7.2 The Transmission Customer may purchase transmission service to make sales of capacity and energy from multiple generating units that are on APS' Transmission System. For such a purchase of transmission service, the resources will be designated as multiple Points of Receipt, unless the multiple generating units are at the same generating plant or the multiple generating units are connected to the Palo Verde/Hassayampa Common Bus; in either case, the units would be treated as a single Point of Receipt. Similarly, the Palo Verde/Hassayampa Common Bus will be treated as a single point of receipt and as a single point of delivery for transactions scheduled to or from the Common Bus.

13.7.3 APS shall provide firm deliveries of capacity and energy from the Point(s) of Receipt to the Point(s) of Delivery. Each Point of Receipt at which firm transmission capacity is reserved by the Transmission Customer shall be set forth in the Firm Point-To-Point Service Agreement for Long-Term Firm Transmission Service along with a corresponding capacity reservation associated with each Point of Receipt. Points of Receipt and corresponding capacity reservations shall be as mutually agreed upon by the Parties for Short-Term Firm Transmission. Each Point of Delivery at which firm transfer capability is reserved by the Transmission Customer shall be set forth in the Firm Point-To-Point Service Agreement for Long-Term Firm Transmission Service along with a corresponding capacity reservation associated with each Point of Delivery. Points of Delivery and corresponding capacity reservations shall be as mutually agreed upon by the Parties for Short-Term Firm Transmission. The greater of either (1) the sum of the capacity reservations at the Point(s) of Receipt, or (2) the sum of the capacity reservations at the Point(s) of Delivery shall be the Transmission Customer's Reserved Capacity. The Transmission Customer will be billed for its Reserved Capacity under the terms of Schedule 7. The Transmission Customer may not exceed its firm capacity reserved at each Point of Receipt and each Point of Delivery except as otherwise specified in Section 22. APS shall specify the rate treatment and all related terms and conditions applicable in the event that a Transmission Customer (including Third-Party Sales by APS) exceeds its firm reserved capacity at any Point of Receipt or Point of Delivery or uses Transmission Service at a Point of Receipt or Point of Delivery that it has not reserved.

13.8 Scheduling of Firm Point-To-Point Transmission Service:

Schedules for the Transmission Customer's Firm Point-To-Point Transmission Service with a duration of one day or longer must be submitted to APS no later

than 3:00 p.m., Pacific Prevailing Time ("PPT") of the Working Day prior to commencement of such service. Schedules submitted after 3:00 p.m. PPT, will be accommodated, if practicable. Schedules for the Transmission Customer's Firm Point-to-Point Transmission service with a duration of one hour must be submitted to APS no later than 20 minutes before the next scheduling interval when such service will commence. Schedules submitted after 20 minutes before the next scheduling interval will be accommodated, if practicable. Hour-to-hour and intra-hour (four intervals consisting of fifteen minute schedules) schedules of any capacity and energy that is to be delivered must be stated in increments of 1,000 kW per hour. Transmission Customers within APS' service area with multiple requests for Transmission Service at a Point of Receipt, each of which is under 1,000 kW per hour, may consolidate their service requests at a common point of receipt into units of 1,000 kW per hour for scheduling and billing purposes. Scheduling changes will be permitted up to twenty (20) minutes before the start of the next scheduling interval provided that the Delivering Party and Receiving Party also agree to the schedule modification. APS will furnish to the Delivering Party's system operator, hour-to-hour and intra-hour schedules equal to those furnished by the Receiving Party(unless reduced for losses) and shall deliver the capacity and energy provided by such schedules. Should the Transmission Customer, Delivering Party or Receiving Party revise or terminate any schedule, such party shall immediately notify APS, and APS shall have the right to adjust accordingly the schedule for capacity and energy to be received and to be delivered.

14 Nature of Non-Firm Point-To-Point Transmission Service

14.1 Term:

Non-Firm Point-To-Point Transmission Service will be available for periods ranging from one (1) hour to one (1) month. However, a Purchaser of Non-Firm Point-To-Point Transmission Service will be entitled to reserve a sequential term of service (such as a sequential monthly term without having to wait for the initial term to expire before requesting another monthly term) so that the total time period for which the reservation applies is greater than one month, subject to the requirements of Section 18.3.

14.2 Reservation Priority:

Non-Firm Point-To-Point Transmission Service shall be available from transfer capability in excess of that needed for reliable service to Native Load Customers, Network Customers and other Transmission Customers taking Long-Term and Short-Term Firm Point-To-Point Transmission Service. A higher priority will be assigned first to requests or reservations with a longer duration of service and second to pre-Confirmed Applications. In the event the Transmission System is constrained, competing requests of the same Pre-confirmation status and equal duration will be prioritized based on the highest price offered by the Eligible Customer for the Transmission Service. Eligible Customers that have already reserved shorter term service have the right of first refusal to match any longer term request before being preempted. A longer term competing request for Non-Firm Point-To-Point Transmission Service will be granted if the Eligible Customer with the right of first refusal does not agree to match the competing request: (a) immediately for hourly Non-Firm Point-To-Point Transmission Service after notification by APS; and (b) within 24 hours (or earlier if necessary to comply with the scheduling deadlines provided in section 14.6) for Non-Firm Point-To-Point Transmission Service other than hourly transactions after notification by APS. Transmission service for Network Customers from resources other than designated Network Resources will have a higher priority than any Non-Firm Point-To-Point Transmission Service. Non-Firm Point-To-Point Transmission Service over secondary Point(s) of Receipt and Point(s) of Delivery will have the lowest reservation priority under the Tariff.

14.3 Use of Non-Firm Point-To-Point Transmission Service by the Transmission Provider:

APS will be subject to the rates, terms and conditions of Part II of the Tariff when making Third-Party Sales under (i) agreements executed on or after July 9, 1996, or (ii) agreements executed prior to the aforementioned date that the Commission requires to be unbundled, by the date specified by the Commission. APS will maintain separate accounting, pursuant to Section 8, for any use of Non-Firm Point-To-Point Transmission Service to make Third-Party Sales.

14.4 Service Agreements:
APS shall offer a standard form Non-Firm Point-To-Point Transmission Service Agreement (Attachment B) to an Eligible Customer when it first submits a Completed Application for Non-Firm Point-To-Point Transmission Service pursuant to the Tariff. Executed Service Agreements that contain the information required under the Tariff shall be filed with the Commission in compliance with applicable Commission regulations.

14.5 Classification of Non-Firm Point-To-Point Transmission Service:
Non-Firm Point-To-Point Transmission Service shall be offered under terms and conditions contained in Part II of the Tariff. APS undertakes no obligation under the Tariff to plan its Transmission System in order to have sufficient capacity for Non-Firm Point-To-Point Transmission Service. Parties requesting Non-Firm Point-To-Point Transmission Service for the transmission of firm power do so with the full realization that such service is subject to availability and to Curtailment or Interruption under the terms of the Tariff. APS shall specify the rate treatment and all related terms and conditions applicable in the event that a Transmission Customer (including Third-Party Sales by APS) exceeds its non-firm capacity reservation. Non-Firm Point-To-Point Transmission Service shall include transmission of energy on an hourly basis and transmission of scheduled short-term capacity and energy on a daily, weekly or monthly basis, but not to exceed one month's reservation for any one Application, under Schedule 8.

14.6 Scheduling of Non-Firm Point-To-Point Transmission Service:
Schedules for Non-Firm Point-To-Point Transmission Service must be submitted to APS no later than 3:00 p.m. PPT, of the Working Day prior to commencement of such service. Schedules submitted after 3:00 p.m., PPT, will be accommodated, if practicable. Schedules for the Transmission Customer's Non-Firm Point-To-Point Transmission service with a duration of one hour must be submitted to APS no later than 20 minutes before the next scheduling interval when such service will commence. Schedules submitted after 20 minutes before the next scheduling interval will be accommodated, if practicable. Hour-to-hour and intra-hour (four intervals consisting of fifteen minute schedules) schedules of energy that is to be delivered must be stated in increments of 1,000 kW per hour. Transmission Customers within APS' service area with multiple requests for Transmission Service at a Point of Receipt, each of which is under 1,000 kW per hour, may consolidate their schedules at a common Point of Receipt into units of 1,000 kW per hour. Scheduling changes will be permitted twenty (20) minutes before the start of the next scheduling interval, provided that the Delivering Party and Receiving Party also agree to the schedule modification. APS will furnish to the Delivering Party's system operator, hour-to-hour and intra-hour schedules equal to those furnished by the Receiving Party (unless reduced for losses) and shall deliver the capacity and energy provided by such schedules. Should the Transmission Customer, Delivering Party or Receiving Party revise or terminate any schedule, such party shall immediately notify APS, and APS shall have the right to adjust accordingly the schedule for capacity and energy to be received and to be delivered.

14.7 Curtailment or Interruption of Service:

APS reserves the right to Curtail, in whole or in part, Non-Firm Point-To-Point Transmission Service provided under the Tariff for reliability reasons when an emergency or other unforeseen condition threatens to impair or degrade the reliability of its Transmission System. Transmission Provider may elect to implement such Curtailments pursuant to the Transmission Loading Relief procedures specified in Attachment N. APS reserves the right to Interrupt, in whole or in part, Non-Firm Point-To-Point Transmission Service provided under the Tariff for economic reasons in order to accommodate (1) a request for Firm Transmission Service, (2) a request for Non-Firm Point-To-Point Transmission Service of greater duration, (3) a request for Non-Firm Point-To-Point Transmission Service of equal duration with a higher price, (4) transmission service for Network Customers from non-designated resources, or (5) transmission service for Firm Point-to-Point Transmission Service during conditional curtailment periods as described in Section 15.4. APS also will discontinue or reduce service to the Transmission Customer to the extent that deliveries for transmission are discontinued or reduced at the Point(s) of Receipt. Where required, Curtailments or Interruptions will be made on a non-discriminatory basis to the transaction(s) that effectively relieve the constraint, however, Non-Firm Point-To-Point Transmission Service shall be subordinate to Firm Transmission Service. If multiple transactions require Curtailment or Interruption, to the extent practicable and consistent with Good Utility Practice, Curtailments or Interruptions will be made to transactions of the shortest term (e.g., hourly non-firm transactions will be Curtailed or Interrupted before daily non-firm transactions and daily non-firm transactions will be Curtailed or Interrupted before weekly non-firm transactions). Transmission service for Network Customers from resources other than designated Network Resources will have a higher priority than any Non-Firm Point-To-Point Transmission Service under the Tariff. Non-Firm Point-To-Point Transmission Service over secondary Point(s) of Receipt and Point(s) of Delivery will have a lower priority than any Non-Firm Point-To-Point Transmission Service under the Tariff. APS will provide advance notice of Curtailment or Interruption where such notice can be provided consistent with Good Utility Practice. Transmission Provider will take necessary measures to ensure reliability in APS's BAA in accordance with Section 6 of Attachment Q.

15 Service Availability

15.1 General Conditions:

APS will provide Firm and Non-Firm Point-To-Point Transmission Service over, on or across its Transmission System to any Transmission Customer that has met the requirements of Section 16.

15.2 Determination of Available Transfer Capability:

APS calculates ATC per the applicable WECC methodology which can be found at www.wecc.biz, Determination of Available Transfer Capability Within the Western Interconnection.

15.3 Initiating Service in the Absence of an Executed Service Agreement:

If APS and the Transmission Customer requesting Firm or Non-Firm Point-To-Point Transmission Service cannot agree on all the terms and conditions of the Point-To-Point Service Agreement, APS shall file with the Commission, within thirty (30) days after the date the Transmission Customer provides written notification directing APS to file, an unexecuted Point-To-Point Service Agreement containing terms and conditions deemed appropriate by APS for such requested Transmission Service. APS shall commence providing Transmission Service subject to the Transmission Customer agreeing to (i) compensate APS at whatever rate the Commission ultimately determines to be just and reasonable, and (ii) comply with the terms and conditions of the Tariff.

15.4 Obligation to Provide Transmission Service that Requires Expansion or Modification of the Transmission System, Redispatch or Conditional Curtailment:

(a) If APS determines that it cannot accommodate a Completed Application for Firm Point-To-Point Transmission Service because of insufficient capability on its Transmission System, APS will use due diligence to expand or modify its Transmission System to provide the requested Firm Transmission Service, consistent with its planning obligations in Attachment E, provided the Transmission Customer agrees to compensate APS for such costs pursuant to the terms of Section 27. APS will conform to Good Utility Practice and its planning obligations in Attachment E, in determining the need for new facilities and in the design and construction of such facilities. The obligation applies only to those facilities that APS has the right to expand or modify.

(b) If the Transmission Provider determines that it cannot accommodate a Completed Application for Long-Term Firm Point-to-Point Transmission Service because of insufficient capability on its Transmission System, the Transmission Provider will use due diligence to provide redispatch from its own resources until (i) Network Upgrades are completed for

the Transmission Customer, (ii) the Transmission Provider determines through a biennial reassessment that it can no longer reliably provide the redispatch, or (iii) the Transmission Customer terminates the service because of redispatch changes resulting from the reassessment. A Transmission Provider shall not unreasonably deny self-provided redispatch or redispatch arranged by the Transmission Customer from a third party resource.

(c) If the Transmission Provider determines that it cannot accommodate a Completed Application for Long-Term Firm Point-To-Point Transmission Service because of insufficient capability on its Transmission System, the Transmission Provider will offer the Firm Transmission Service with the condition that the Transmission Provider may curtail the service prior to the curtailment of other Firm Transmission Service for a specified number of hours per year or during System Condition(s). If the Transmission Customer accepts the service, the Transmission Provider will use due diligence to provide the service until (i) Network Upgrades are completed for the Transmission Customer, (ii) the Transmission Provider determines through a biennial reassessment that it can no longer reliably provide such service, or (iii) the Transmission Customer terminates the service because the reassessment increased the number of hours per year of conditional curtailment or changed the System Conditions.

15.5 Deferral of Service:

APS may defer providing service until it completes construction of new transmission facilities or upgrades needed to provide Firm Point-To-Point Transmission Service whenever APS determines that providing the requested service would, without such new facilities or upgrades, impair or degrade reliability to any existing firm services.

15.6 Other Transmission Service Schedules:

Eligible Customers receiving transmission service under other agreements on file with the Commission may continue to receive transmission service under those agreements until such time as those agreements may be modified by the Commission.

15.7 Real Power Losses:

Real power losses are associated with all transmission service, excluding service for EIM Participation. APS is not obligated to provide real power losses. The Transmission Customer is responsible for replacing losses associated with all transmission service as calculated by APS. The applicable Transmission System Real Power Loss factor is 2.5% (for voltages 69 kV or higher). For customers subscribing for service at distribution voltage levels (service at voltage levels less that 69 kV), losses will be addressed in the service agreement

16 Transmission Customer Responsibilities

16.1 Conditions Required of Transmission Customers:

Point-To-Point Transmission Service shall be provided by APS only if the following conditions are satisfied by the Transmission Customer:

16.1.1 The Transmission Customer has pending a Completed Application for service;

16.1.2 The Transmission Customer meets the creditworthiness criteria set forth in Section 11;

16.1.3 The Transmission Customer will have arrangements in place for any other transmission service necessary to effect the delivery from the generating source to APS prior to the time service under Part II of the Tariff commences;

16.1.4 The Transmission Customer agrees to pay for any facilities constructed and chargeable to such Transmission Customer under Part II of the Tariff, whether or not the Transmission Customer takes service for the full term of its reservation;

16.1.5 The Transmission Customer provides the information required by the Transmission Provider's planning process established in Attachment E; and

16.1.6 The Transmission Customer has executed a Point-To-Point Service Agreement or has agreed to receive service pursuant to Section 15.3.

16.1.7 The Transmission Customer is subject to Attachment Q regarding the EIM and must comply with its requirements.

16.2 Transmission Customer Responsibility for Third-Party Arrangements:

Any scheduling arrangements that may be required by other electric systems shall be the responsibility of the Transmission Customer requesting service. The Transmission Customer shall provide, unless waived by APS, notification to APS identifying such systems and authorizing them to schedule the capacity and energy to be transmitted by APS pursuant to Part II of the Tariff on behalf of the Receiving Party at the Point of Delivery or the Delivering Party at the Point of Receipt. However, APS will undertake reasonable efforts to assist the Transmission Customer in making such arrangements, including without limitation, providing any information or data required by such other electric system pursuant to Good Utility Practice.

17 Procedures for Arranging Firm Point-To-Point Transmission Service

17.1 Application:

An eligible Customer requesting Firm Point-To-Point Transmission Service for periods of one year or longer must submit the required information in accordance with Section 17.2 via e-mail to APS at the following e-mail address: oasisadm@apsc.com in addition to submitting the required information on APS' OASIS. Customers requesting an Umbrella Service Agreement shall only submit the application via e-mail and will not be subject to submitting the information outlined in Section 17.2 on OASIS until such time the customer desires to schedule specific transmission service. Information provided under this provision shall be provided at least sixty (60) days in advance of the calendar month in which service is to commence. APS will consider requests for such firm service on shorter notice when feasible. Requests for firm service for periods of less than one year shall be subject to expedited procedures that shall be negotiated between the Parties within the time constraints provided in Section 17.5. If the customer cannot access APS' OASIS, assistance can be acquired by calling (602) 250-1128.

17.2 Completed Application:

A Completed Application shall provide all of the information included in 18 CFR § 2.20 including but not limited to the following:

17.2.1 The identity, address, telephone number and facsimile number of the entity requesting service;

17.2.2 A statement that the entity requesting service is, or will be upon commencement of service, an Eligible Customer under the Tariff;

17.2.3 The location of the Point(s) of Receipt and Point(s) of Delivery and the identities of the Delivering Parties and the Receiving Parties;

17.2.4 The location of the generating facility(ies) supplying the capacity and energy and the location of the load ultimately served by the capacity and energy transmitted. APS will treat this information as confidential except to the extent that disclosure of this information is required by this Tariff, by regulatory or judicial order, for reliability purposes pursuant to Good Utility Practice or pursuant to RTG transmission information sharing agreements. APS shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations;

17.2.5 A description of the supply characteristics of the capacity and energy to be delivered;

17.2.6 An estimate of the capacity and energy expected to be delivered to the Receiving Party;

17.2.7 The Service Commencement Date and the term of the requested Transmission Service;

17.2.8 The transmission capacity requested for each Point of Receipt and each Point of Delivery on APS' Transmission System; customers may combine their requests for service in order to satisfy the minimum transmission capacity requirement;

17.2.9 A statement indicating that, if the Eligible Customer submits a Pre-Confirmed Application, the Eligible Customer will execute a Service Agreement upon receipt of notification that the Transmission Provider can provide the requested Transmission Service; and

17.2.10 Any additional information required by the Transmission Provider's planning process established in Attachment E.

APS shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations.

17.3 Notice of Deficient Application:

If an Application fails to meet the requirements of the Tariff, APS shall notify the entity requesting service within fifteen (15) days of receipt of the reasons for such failure. APS will attempt to remedy minor deficiencies in the Application through informal communications with the Eligible Customer. If such efforts are unsuccessful, APS shall return the Application. Upon receipt of a new or revised Application that fully complies with the requirements of Part II of the Tariff, the Eligible Customer shall be assigned a new priority consistent with the date of the new or revised Application.

17.4 Response to a Completed Application:

Following receipt of a Completed Application for Firm Point-To-Point Transmission Service, APS shall make a determination of available transfer capability as required in Section 15.2. APS shall notify the Eligible Customer as soon as practicable, but not later than thirty (30) days after the date of receipt of a Completed Application either (i) if it will be able to provide service without performing a System Impact Study or (ii) if such a study is needed to evaluate the impact of the Application pursuant to Section 19.1. Responses by APS must be made as soon as practicable to all completed applications (including applications by its own merchant function) and the timing of such responses must be made on a non-discriminatory basis.

17.5 Execution of Service Agreement:

Whenever APS determines that a System Impact Study is not required and that the service can be provided, it shall notify the Eligible Customer as soon as practicable but no later than thirty (30) days after receipt of the Completed Application. Where a System Impact Study is required, the provisions of Section 19 will govern the execution of a Service Agreement. Failure of an Eligible Customer to execute and return the Service Agreement or request the filing of an unexecuted service agreement pursuant to Section 15.3, within fifteen (15) days after it is tendered by APS will be deemed a withdrawal. Nothing herein limits the right of an Eligible Customer to file another Application after such withdrawal and termination.

17.6 Extensions for Commencement of Service:

The Transmission Customer can obtain, subject to availability, up to five (5) one-year extensions for the commencement of service. The Transmission Customer may postpone service by paying a non-refundable annual reservation fee equal to one-month's charge for Firm Transmission Service for each year or fraction thereof within 15 days of notifying the Transmission Provider it intends to extend the commencement of service. If during any extension for the commencement of service an Eligible Customer submits a Completed Application for Firm Transmission Service, and such request can be satisfied only by releasing all or part of the Transmission Customer's Reserved Capacity, the original Reserved Capacity will be released unless the following condition is satisfied. Within thirty (30) days, the original Transmission Customer agrees to pay the Firm Point-To-Point transmission rate for its Reserved Capacity concurrent with the new Service Commencement Date. In the event the Transmission Customer elects to release the Reserved Capacity, the reservation fees or portions thereof previously paid will be forfeited.

17.7 Completed Application for Participation in EIM Using Firm Point-to-Point Transmission Service

A Transmission Customer that elects to participate in the EIM using a Service Agreement for firm Point-to-Point Transmission Service in accordance with Attachment Q shall submit a Completed Application for the Service Agreement for Firm Point-to-Point Transmission Service consistent with Section 17.1 and provide the information requested in Section 17.2.

18 Procedures for Arranging Non-Firm Point-To-Point Transmission Service:

18.1 Application:

An eligible Customer requesting Non-Firm Point-To-Point Transmission Service must submit the required information in accordance with Section 18.2 via e-mail to APS at the following e-mail address: oasisadm@apsc.com in addition to submitting the required information on APS' OASIS. Customers requesting Umbrella Service Agreement shall only submit the application via email and will not be subject to submitting the information listed in Section 18.2 on OASIS until such time the customer desires to schedule specific transmission service. Reservation time constraints are provided in Section 18.3. Customers can access Arizona Public Service Company's OASIS in order to register and secure services. Customers shall be permitted to submit hard copy information in accordance with that required in section 18.2, hereof, and 18 C.F.R. § 2.20 (b) after submitting a formal request in outlining the customer's desired transmission service. If the customer cannot access APS' OASIS, assistance can be acquired by calling (602) 250-1128.

18.2 Completed Application:

A Completed Application shall provide all of the information included in 18 CFR § 2.20 including but not limited to the following:

18.2.1 The identity, address, telephone number and facsimile number of the entity requesting service;

18.2.2 A statement that the entity requesting service is, or will be upon commencement of service, an Eligible Customer under the Tariff;

18.2.3 The Point(s) of Receipt and the Point(s) of Delivery;

18.2.4 The maximum amount of capacity requested at each Point of Receipt and Point of Delivery; and

18.2.5 The proposed dates and hours for initiating and terminating transmission service hereunder.

In addition to the information specified above, when required to properly evaluate system conditions, APS also may ask the Transmission Customer to provide the following:

18.2.6 The electrical location of the initial source of the power to be transmitted pursuant to the Transmission Customer's request for service; and

18.2.7 The electrical location of the ultimate load.

APS will treat this information in Sections 18.2.6 and 18.2.7 as confidential at the request of the Transmission Customer except to the extent that disclosure of this information is required by this Tariff, by regulatory or judicial order, for reliability purposes pursuant to Good Utility Practice, or pursuant to RTG transmission information sharing agreements.

APS shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations.

18.2.8. A statement indicating that, if the Eligible Customer submits a PreConfirmed Application, the Eligible Customer will execute a Service Agreement upon receipt of notification that the Transmission Provider can provide the requested Transmission Service.

18.3 Reservation of Non-Firm Point-To-Point Transmission Service:
Requests for monthly service shall be submitted no earlier than sixty (60) days before service is to commence; requests for weekly service shall be submitted no earlier than fourteen (14) days before service is to commence, requests for daily service shall be submitted no earlier than two (2) Working Days before service is to commence, and requests for hourly service shall be submitted no earlier than noon the Working Day before service is to commence. Requests for service received later than 2:00 p.m., MST, prior to the day service is scheduled to commence will be accommodated if practicable.

18.4 Determination of Available Transfer Capability:
Following receipt of a tendered schedule APS will make a determination on a non-discriminatory basis of available transfer capability pursuant to Section 15.2. Such determination shall be made as soon as reasonably practicable after receipt, but not later than the following time periods for the following terms of service (i) thirty (30) minutes for hourly service, (ii) thirty (30) minutes for daily service, (iii) four (4) hours for weekly service, and (iv) two (2) days for monthly service.

18.5 Completed Application for Participation in EIM Using Non-Firm Point-to-Point Transmission Service:
A Transmission Customer that elects to participate in the EIM using an Umbrella Service Agreement for Non-Firm Point-to-Point Transmission Service in accordance with Attachment Q shall submit a Completed Application for the Umbrella Service Agreement for Non-Firm Point-to-Point Transmission Service consistent with Section 18.1 and provide the information requested in Section 18.2.

19 Additional Study Procedures For Firm Point-To-Point Transmission Service Requests

19.1 Notice of Need for System Impact Study:

After receiving a request for service, APS shall determine on a non-discriminatory basis whether a System Impact Study is needed. A description of APS' methodology for completing a System Impact Study is provided in Attachment D. If APS determines that a System Impact Study is necessary to accommodate the requested service, it shall so inform the Eligible Customer, as soon as practicable. Once informed, the Eligible Customer shall timely notify the Transmission Provider if it elects to have the Transmission Provider study redispatch or conditional curtailment as part of the System Impact Study. If notification is provided prior to tender of the System Impact Study Agreement, the Eligible Customer can avoid the costs associated with the study of these options. APS shall within thirty (30) days of receipt of a Completed Application, tender a System Impact Study Agreement pursuant to which the Eligible Customer shall agree to reimburse APS for performing the required System Impact Study. For a service request to remain a Completed Application, the Eligible Customer shall execute the System Impact Study Agreement and return it to APS within fifteen (15) days. If the Eligible Customer elects not to execute the System Impact Study Agreement, its application shall be deemed withdrawn.

19.2 System Impact Study Agreement and Cost Reimbursement:

19.2.1 The System Impact Study Agreement will clearly specify APS' estimate of the actual cost, and time for completion of the System Impact Study. The charge shall not exceed the actual cost of the study. In performing the System Impact Study, APS shall rely, to the extent reasonably practicable, on existing transmission planning studies. The Eligible Customer will not be assessed a charge for such existing studies; however, the Eligible Customer will be responsible for charges associated with any modifications to existing planning studies that are reasonably necessary to evaluate the impact of the Eligible Customer's request for service on the Transmission System.

19.2.2 If in response to multiple Eligible Customers requesting service in relation to the same competitive solicitation, a single System Impact Study is sufficient for APS to accommodate the requests for service, the costs of that study shall be pro-rated among the Eligible Customers.

19.2.3 For System Impact Studies that APS conducts on its own behalf, APS shall record the cost of the System Impact Studies pursuant to Section 8.2.

19.3 System Impact Study Procedures:

Upon receipt of an executed System Impact Study Agreement, APS will use due diligence to complete the required System Impact Study within a sixty (60) day period. The System Impact Study shall (1) identify any system constraints,

identified with specificity by transmission element or flowgate, (2) redispatch options (when requested by an Eligible Customer) including an estimate of the cost of redispatch, (3) conditional curtailment options (when requested by an Eligible Customer) including the number of hours per year and the System Conditions during which conditional curtailment may occur, and (4) additional Direct Assignment Facilities or Network Upgrades required to provide the requested service. For customers requesting the study of redispatch options, the System Impact Study shall (1) identify all resources located within the Transmission Provider's Control Area that can significantly contribute toward relieving the system constraint and (2) provide a measurement of each resource's impact on the system constraint. If the Transmission Provider possesses information indicating that any resource outside its Control Area could relieve the constraint, it shall identify each such resource in the System Impact Study. In the event that APS is unable to complete the required System Impact Study within such time period, it shall so notify the Eligible Customer and provide an estimated completion date along with an explanation of the reasons why additional time is required to complete the required studies. A copy of the completed System Impact Study and related work papers shall be made available to the Eligible Customer as soon as the System Impact is complete. APS will use the same due diligence in completing the System Impact Study for an Eligible Customer as it uses when completing studies for itself. APS shall notify the Eligible Customer immediately upon completion of the System Impact Study if the Transmission System will be adequate to accommodate all or part of a request for service or that no costs are likely to be incurred for new transmission facilities or upgrades. In order for a request to remain a Completed Application, within fifteen (15) days of completion of the System Impact Study the Eligible Customer must execute a Service Agreement or request the filing of an unexecuted Service Agreement pursuant to Section 15.3, or the Application shall be deemed terminated and withdrawn.

19.4 Facilities Study Procedures:

If a System Impact Study indicates that additions or upgrades to the Transmission System are needed to supply the Eligible Customer's service request, then APS, within thirty (30) days of the completion of the System Impact Study, shall tender to the Eligible Customer a Facilities Study Agreement pursuant to which the Eligible Customer shall agree to reimburse APS for performing the required Facilities Study. For a service request to remain a Completed Application, the Eligible Customer shall execute the Facilities Study Agreement and return it to APS within fifteen (15) days. If the Eligible Customer elects not to execute the Facilities Study Agreement, its application shall be deemed withdrawn. Upon receipt of an executed Facilities Study Agreement, APS will use due diligence to complete the required Facilities Study within a sixty (60) day period. If APS is unable to complete the Facilities Study in the allotted time period, APS shall notify the Transmission Customer and provide an estimate of the time needed to reach a final determination along with an explanation of the reasons that additional time is required to complete the study. When completed, the Facilities Study will include a good faith estimate of (i) the cost of Direct Assignment

Facilities to be charged to the Transmission Customer, (ii) the Transmission Customer's appropriate share of the cost of any required Network Upgrades as determined pursuant to the provisions of Part II of the Tariff, and (iii) the time required to complete such construction and initiate the requested service. The Transmission Customer shall provide APS with a letter of credit or other reasonable form of security acceptable to APS equivalent to the costs of new facilities or upgrades consistent with commercial practices as established by the Uniform Commercial Code. The Transmission Customer shall have thirty (30) days to execute a Service Agreement or request the filing of an unexecuted Service Agreement and provide the required letter of credit or other form of security or the request will no longer be a Completed Application and shall be deemed terminated and withdrawn.

19.5 Facilities Study Modifications:

Any change in design arising from inability to site or construct facilities as proposed will require development of a revised good faith estimate. New good faith estimates also will be required in the event of new statutory or regulatory requirements that are effective before the completion of construction or other circumstances beyond the control of APS that significantly affect the final cost of new facilities or upgrades to be charged to the Transmission Customer pursuant to the provisions of Part II of the Tariff.

19.6 Due Diligence in Completing New Facilities:

APS shall use due diligence to add necessary facilities or upgrade its Transmission System within a reasonable time. APS will not upgrade its existing or planned Transmission System in order to provide the requested Firm Point-To-Point Transmission Service if doing so would impair system reliability or otherwise impair or degrade existing firm service.

19.7 Partial Interim Service:

If APS determines that it will not have adequate transfer capability to satisfy the full amount of a Completed Application for Firm Point-To-Point Transmission Service, APS nonetheless shall be obligated to offer and provide the portion of the requested Firm Point-To-Point Transmission Service that can be accommodated without addition of any facilities and through redispatch. However, APS shall not be obligated to provide the incremental amount of requested Firm Point-To-Point Transmission Service that requires the addition of facilities or upgrades to the Transmission System until such facilities or upgrades have been placed in service.

19.8 Expedited Procedures for New Facilities:

In lieu of the procedures set forth above, the Eligible Customer shall have the option to expedite the process by requesting APS to tender at one time, together with the results of required studies, an "Expedited Service Agreement" pursuant to which the Eligible Customer would agree to compensate APS for all costs incurred pursuant to the terms of the Tariff. In order to exercise this option, the Eligible Customer shall request in writing an expedited Service Agreement

covering all of the above-specified items within thirty (30) days of receiving the results of the System Impact Study identifying needed facility additions or upgrades or costs incurred in providing the requested service. While APS agrees to provide the Eligible Customer with its best estimate of the new facility costs and other charges that may be incurred, such estimate shall not be binding and the Eligible Customer must agree in writing to compensate APS for all costs incurred pursuant to the provisions of the Tariff. The Eligible Customer shall execute and return such an Expedited Service Agreement within fifteen (15) days of its receipt or the Eligible Customer's request for service will cease to be a Completed Application and will be deemed terminated and withdrawn.

19.9 Penalties for Failure to Meet Study Deadlines:

Sections 19.3 and 19.4 require a Transmission Provider to use due diligence to meet 60-day study completion deadlines for System Impact Studies and Facilities Studies.

(i) The Transmission Provider is required to file a notice with the Commission in the event that more than twenty (20) percent of non-Affiliates' System Impact Studies and Facilities Studies completed by the Transmission Provider in any two consecutive calendar quarters are not completed within the 60-day study completion deadlines. Such notice must be filed within thirty (30) days of the end of the calendar quarter triggering the notice requirement.

(ii) For the purposes of calculating the percent of non-Affiliates' System Impact Studies and Facilities Studies processed outside of the 60-day study completion deadlines, the Transmission Provider shall consider all System Impact Studies and Facilities Studies that it completes for non-Affiliates during the calendar quarter. The percentage should be calculated by dividing the number of those studies which are completed on time by the total number of completed studies. The Transmission Provider may provide an explanation in its notification filing to the Commission if it believes there are extenuating circumstances that prevented it from meeting the 60-day study completion deadlines.

(iii) The Transmission Provider is subject to an operational penalty if it completes ten (10) percent or more of non-Affiliates' System Impact Studies and Facilities Studies outside of the 60-day study completion deadlines for each of the two calendar quarters immediately following the quarter that triggered its notification filing to the Commission. The operational penalty will be assessed for each calendar quarter for which an operational penalty applies, starting with the calendar quarter immediately following the quarter that triggered the Transmission Provider's notification filing to the Commission. The operational penalty will continue to be assessed each quarter until the Transmission Provider completes

at least ninety (90) percent of all non-Affiliates' System Impact Studies and Facilities Studies within the 60-day deadline.

(iv) For penalties assessed in accordance with subsection (iii) above, the penalty amount for each System Impact Study or Facilities Study shall be equal to $500 for each day the Transmission Provider takes to complete that study beyond the 60-day deadline.

19.10 Clustering of Point-to-Point Studies:

The Eligible Customer may request that APS cluster the System Impact Studies and/or Facilities Studies. The Eligible Customer shall notify APS in writing prior to signing a study agreement if the Eligible Customer requests its System Impact Study or Facilities Study to be clustered with another Eligible Customer's System Impact Study or Facilities Study. In this notification, the Eligible Customer shall identify the other Eligible Customer (s) (and associated requests(s) for Transmission Service) with which it would like to be clustered, and shall indicate whether the other Eligible Customer(s) with which it requests clustering support(s) the clustering request. APS may, in its discretion, notify Eligible Customers who have submitted Transmission Service requests about potential clustering opportunities. APS will consider clustering requests provided that clustering will facilitate the performance of such studies, the design of upgrade(s) or the addition(s) to the Transmission System in response to such requests. APS will not consider a clustering request if: (i) the cluster is not supported by all Eligible Customers proposed to be in the cluster; (ii) APS determines that the requests should be studied individually rather than in a cluster (e.g., studies are geographically diverse or otherwise impact the transmission system in diverse ways such that clustering is not reasonable); or (iii) APS determines that granting the clustering request is likely to cause APS to miss any deadline set forth in this Tariff.

All Eligible Customers involved in a cluster study will be required to execute the System Impact Study Agreement and/or Facilities Study Agreement which provides that the System Impact Study or Facilities Study will be performed as a cluster study. The study will be performed in accordance with the procedures set forth in section 19.3 and 19.4 with the exception that the timeline for performing the System Impact Study or Facilities Study will begin to run after all Eligible Customers who have notified APS of their intent to participate in a cluster study have executed a System Impact Study Agreement or Facilities Study Agreement. Once Eligible Customers agree to have APS cluster their System Impact Studies or Facility Studies, the Eligible Customers may request to opt out of the cluster. APS will not grant any request to opt out of a cluster if, in APS's discretion, APS determines that granting the request to opt out of the cluster is likely to cause APS to miss any deadline set forth in this Tariff. If a request by an Eligible Customer to opt out of a cluster study is granted by APS, APS will evaluate the impact of the Eligible Customer's withdrawal and may revise, at APS's discretion, the cluster study process and results accordingly. APS, at its discretion, may determine that additional time may be required to complete the study as a result of

any Eligible Customer opting out. APS shall communicate any delays in writing to the other participants in the cluster and provide a good faith estimate on a revised completion date.

Eligible Customers that have agreed to cluster their System Impact Study shall be responsible for reimbursing APS for performing the clustered System Impact Study in equal shares, unless the Eligible Customers in the cluster independently agree to an alternate cost-sharing structure, in which case the Eligible Customers shall provide APS with a copy of that alternate agreement, as executed. A participating Eligible Customer that opts out of the clustered System Impact Study process shall remain liable for its equal share of APS's costs in performing the cluster study. Each Facilities Study that is clustered together under this section shall be treated as a single Facilities Study and shall be performed pursuant to a single Facilities Study Agreement entered into among APS and each of the Eligible Customer(s) that have submitted a service request that has been clustered together. Unless otherwise agreed in such agreement, the cost for the completion of the Facilities Study shall be allocated among such Eligible Customer(s) in proportion to the amounts of their respective requests for transmission service (Long-Term Firm Point-to-Point Transmission Service or Network Integration Transmission Service).

If APS determines that it will not have adequate transfer capability to satisfy the full amount as requested in the Completed Applications by Eligible Customer(s) for service for which the studies have been clustered together, APS nonetheless shall be obligated to offer and provide the portion of the requested service that can be accommodated without addition of any facilities; such portion shall be allocated among such Eligible customer(s) in proportion to the amounts of their respective requests for transmission service. However, APS shall not be obligated to provide the incremental amount of requested service that requires the addition of facilities or upgrades to the Transmission System until such facilities or upgrades have been placed in service. APS shall not be required to undertake any Transmission System upgrade(s) or addition(s) identified by a clustered Facilities Study unless all Eligible Customer(s) for service for which the studies have been clustered together sign Service Agreements under which the costs of such upgrades(s) or addition(s) are recoverable (to the extent such costs are (i) Direct Assignment Facilities costs or (ii) incremental costs that exceed the applicable embedded cost). If any of such Eligible Customer(s) fails to execute a Service Agreement (or request the filing of an unexecuted Service Agreement) and provide the required letter of credit or other form of security, the service request of each such Eligible Customer shall be deemed to be terminated or withdrawn. This Section 19.10 sets forth the principal criteria and requirements to be applied to APS' consideration of clustering studies. Additional criteria and requirements may be appropriate for any particular request for clustering of studies and may be applied by APS to such request.

20 Procedures if The Transmission Provider is Unable to Complete New Transmission Facilities for Firm Point-To-Point Transmission Service

20.1 Delays in Construction of New Facilities:

If any event occurs that will materially affect the time for completion of new facilities, or the ability to complete them, APS shall promptly notify the Transmission Customer. In such circumstances, APS shall within thirty (30) days of notifying the Transmission Customer of such delays, convene a technical meeting with the Transmission Customer to evaluate the alternatives available to the Transmission Customer. APS also shall make available to the Transmission Customer studies and work papers related to the delay, including all information that is in the possession of APS that is reasonably needed by the Transmission Customer to evaluate any alternatives.

20.2 Alternatives to the Original Facility Additions:

When the review process of Section 20.1 determines that one or more alternatives exist to the originally planned construction project, APS shall present such alternatives for consideration by the Transmission Customer. If, upon review of any alternatives, the Transmission Customer desires to maintain its Completed Application subject to construction of the alternative facilities, it may request APS to submit a revised Service Agreement for Firm Point-To-Point Transmission Service. If the alternative approach solely involves Non-Firm Point-To-Point Transmission Service, APS shall promptly tender a Service Agreement for Non-Firm Point-To-Point Transmission Service providing for the service. In the event APS concludes that no reasonable alternative exists and the Transmission Customer disagrees, the Transmission Customer may seek relief under the dispute resolution procedures pursuant to Section 12 or it may refer the dispute to the Commission for resolution.

20.3 Refund Obligation for Unfinished Facility Additions:

If APS and the Transmission Customer mutually agree that no other reasonable alternatives exist and the requested service cannot be provided out of existing capability under the conditions of Part II of the Tariff, the obligation to provide the requested Firm Point-To-Point Transmission Service shall terminate. However, the Transmission Customer shall be responsible for all prudently incurred costs by APS through the time construction was suspended.

21 Provisions Relating to Transmission Construction and Services on the Systems of Other Utilities

21.1 Responsibility for Third-Party System Additions:

APS shall not be responsible for making arrangements for any necessary engineering, permitting, and construction of transmission or distribution facilities on the system(s) of any other entity or for obtaining any regulatory approval for such facilities. APS will undertake reasonable efforts to assist the Transmission Customer in obtaining such arrangements, including without limitation, providing any information or data required by such other electric system pursuant to Good Utility Practice.

21.2 Coordination of Third-Party System Additions:

In circumstances where the need for transmission facilities or upgrades is identified pursuant to the provisions of Part II of the Tariff, and if such upgrades further require the addition of transmission facilities on other systems, APS shall have the right to coordinate construction on its own system with the construction required by others. APS, after consultation with the Transmission Customer and representatives of such other systems, may defer construction of its new transmission facilities, if the new transmission facilities on another system cannot be completed in a timely manner. APS shall notify the Transmission Customer in writing of the basis for any decision to defer construction and the specific problems which must be resolved before it will initiate or resume construction of new facilities. Within sixty (60) days of receiving written notification by APS of its intent to defer construction pursuant to this section, the Transmission Customer may challenge the decision in accordance with the dispute resolution procedures pursuant to Section 12 or it may refer the dispute to the Commission for resolution.

22 Changes in Service Specifications

22.1 Modifications On a Non-Firm Basis:

The Transmission Customer taking Firm Point-To-Point Transmission Service may request APS to provide transmission service on a non-firm basis over Receipt and Delivery Points other than those specified in the Service Agreement ("Secondary Receipt and Delivery Points"), in amounts not to exceed its firm capacity reservation, without incurring an additional Non-Firm Point-To-Point Transmission Service charge or executing a new Service Agreement, subject to the following conditions.

22.1.1 Service provided over Secondary Receipt and Delivery Points will be non-firm only, on an as-available basis and will not displace any firm or non-firm service reserved or scheduled by third-parties under the Tariff or by APS on behalf of its Native Load Customers.

22.1.2 The sum of all Firm and non-firm Point-To-Point Transmission Service provided to the Transmission Customer at any time pursuant to this section shall not exceed the Reserved Capacity in the relevant Service Agreement under which such services are provided.

22.1.3 The Transmission Customer shall retain its right to schedule Firm Point-To-Point Transmission Service at the Receipt and Delivery Points specified in the relevant Service Agreement in the amount of its original capacity reservation.

22.1.4 Service over Secondary Receipt and Delivery Points on a non-firm basis shall not require the filing of an Application for Non-Firm Point-To-Point Transmission Service under the Tariff. However, all other requirements of Part II of the Tariff (except as to transmission rates) shall apply to transmission service on a non-firm basis over Secondary Receipt and Delivery Points.

22.2 Modification On a Firm Basis:

Any request by a Transmission Customer to modify Receipt and Delivery Points on a firm basis shall be treated as a new request for service in accordance with Section 17 hereof. While such new request is pending, the Transmission Customer shall retain its priority for service at the existing firm Receipt and Delivery Points specified in its Service Agreement.

23 Sale or Assignment of Transmission Service

23.1 Procedures for Assignment or Transfer of Service:

(a) A Transmission Customer may sell, assign, or transfer all or a portion of its rights under its Service Agreement, but only to another Eligible Customer (the Assignee). The Transmission Customer that sells, assigns or transfers its rights under its Service Agreement is hereafter referred to as the Reseller. Compensation to Resellers shall be at rates established by agreement between the Reseller and the Assignee.

(b) The Assignee must execute a service agreement with the Transmission Provider governing reassignments of transmission service prior to the date on which the reassigned service commences. The Transmission Provider shall charge the Reseller, as appropriate, at the rate stated in the Reseller's Service Agreement with the Transmission Provider or the associated OASIS schedule and credit the Reseller with the price reflected in the Assignee's Service Agreement with the Transmission Provider or the associated OASIS schedule; provided that, such credit shall be reversed in the event of non-payment by the Assignee. If the Assignee does not request any change in the Point(s) of Receipt or the Point(s) of Delivery, or a change in any other term or condition set forth in the original Service Agreement, the Assignee will receive the same services as did the Reseller and the priority of service for the Assignee will be the same as that of the Reseller. The Assignee will be subject to all terms and conditions of this Tariff. If the Assignee requests a change in service, the reservation priority of service will be determined by APS pursuant to Section 13.2.

23.2 Limitations on Assignment or Transfer of Service:

If the Assignee requests a change in the Point(s) of Receipt or Point(s) of Delivery, or a change in any other specifications set forth in the original Service Agreement, APS will consent to such change subject to the provisions of the Tariff, provided that the change will not impair the operation and reliability of APS' generation, transmission, or distribution systems. The Assignee shall compensate APS for performing any System Impact Study needed to evaluate the capability of the Transmission System to accommodate the proposed change and any additional costs resulting from such change. The Reseller shall remain liable for the performance of all obligations under the Service Agreement, except as specifically agreed to by the Transmission Provider and the Reseller through an amendment to the Service Agreement.

23.3 Information on Assignment or Transfer of Service:

In accordance with Section 4, all sales or assignments of capacity must be conducted through or otherwise posted on the Transmission Provider's OASIS on or before the date the reassigned service commences and are subject to Section 23.1. Resellers may also use APS' OASIS to post transmission capacity available for resale.

24 Metering and Power Factor Correction at Receipt and Delivery Points(s)

24.1 Transmission Customer Obligations:

Unless otherwise agreed, the Transmission Customer shall be responsible for installing and maintaining compatible metering and communications equipment to accurately account for the capacity and energy being transmitted under Part II of the Tariff and to communicate the information to APS. Such equipment shall remain the property of the Transmission Customer.

24.2 Transmission Provider Access to Metering Data:

APS shall have access to metering data, which may reasonably be required to facilitate measurements and billing under the Service Agreement.

24.3 Power Factor:

Unless otherwise agreed, the Transmission Customer is required to maintain a power factor within the same range as APS pursuant to Good Utility Practices. The power factor requirements are specified in the Service Agreement where applicable.

25 Compensation for Transmission Service

Rates for Firm and Non-Firm Point-To-Point Transmission Service are provided in the Schedules appended to the Tariff: Firm Point-To-Point Transmission Service (Schedule 7); and Non-Firm Point-To-Point Transmission Service (Schedule 8). APS shall use Part II of the Tariff to make its Third-Party Sales. APS shall account for such use at the applicable Tariff rates, pursuant to Section 8.

26 Stranded Cost Recovery

APS may seek to recover stranded costs from the Transmission Customer pursuant to this Tariff in accordance with the terms, conditions and procedures set forth in FERC Order No. 888. However, APS must separately file any specific proposed stranded cost charge under Section 205 of the Federal Power Act.

27 Compensation for New Facilities and Redispatch Costs

Whenever a System Impact Study performed by APS in connection with the provision of Firm Point-To-Point Transmission Service identifies the need for new facilities, the Transmission Customer shall be responsible for such costs to the extent consistent with Commission policy. Whenever a System Impact Study performed by APS identifies capacity constraints that may be relieved by redispatching APS' resources to eliminate such constraints, the Transmission Customer shall be responsible for the redispatch costs to the extent consistent with Commission policy.

III. NETWORK INTEGRATION TRANSMISSION SERVICE

PREAMBLE

APS will provide Network Integration Transmission Service pursuant to the applicable terms and conditions contained in the Tariff and Service Agreement. Network Integration Transmission Service allows the Transmission Customer to integrate, economically dispatch and regulate its current and planned Network Resources to serve its Network Load in a manner comparable to that in which APS utilizes its Transmission System to serve its Native Load Customers. Network Integration Transmission Service also may be used by the Transmission Customer to deliver economy energy purchases to its Network Load from non-designated resources on an as-available basis without additional charge. Transmission service for sales to non-designated loads will be provided pursuant to the applicable terms and conditions of Part II of the Tariff. Scheduling Coordinators, requiring network transmission service in order to serve aggregated direct access retail customer loads under provisions of the Arizona Corporation Commission's retail access program shall be required to subscribe for Retail Network Integration Service under Part IV of the Tariff.

28 Nature of Network Integration Transmission Service

28.1 Scope of Service:

Network Integration Transmission Service is a transmission service that allows Transmission Customers to efficiently and economically utilize their Network Resources (as well as other non-designated generation resources) to serve their Network Load located in APS' Control Area and any additional load that may be designated pursuant to Section 31.3 of the Tariff. The Transmission Customer taking Network Integration Transmission Service must obtain or provide Ancillary Services pursuant to Section 3.

28.2 Transmission Provider Responsibilities:

APS will plan, construct, operate and maintain its Transmission System in accordance with Good Utility Practice and its planning obligations in Attachment E in order to provide the Transmission Customer with Network Integration Transmission Service over APS' Transmission System. APS, on behalf of its Native Load Customers, shall be required to designate resources and loads in the same manner as any Transmission Customer under Part III of this Tariff. This information must be consistent with the information used by APS to calculate available transfer capability. APS shall include the Transmission Customer's Network Load in its Transmission System planning and shall, consistent with Good Utility Practice and Attachment E, endeavor to construct and place into service sufficient transfer capability to deliver the Transmission Customer's Network Resources to serve its Network Load on a basis comparable to APS' delivery of its own generating and purchased resources to its Native Load Customers.

28.3 Network Integration Transmission Service:

APS will provide firm transmission service over its Transmission System to the Transmission Customer for the delivery of capacity and energy from its designated Network Resources to service its Network Loads on a basis that is comparable to APS' use of the Transmission System to reliably serve its Native Load Customers.

28.4 Secondary Service:

The Transmission Customer may use APS' Transmission System to deliver energy to its Network Loads from resources that have not been designated as Network Resources. Such energy shall be transmitted, on an as-available basis, at no additional charge. Secondary service shall not require the filing of an Application for Network Integration Transmission Service under the Tariff. However, all other requirements of Part III of the Tariff (except for transmission rates) shall apply to secondary service. Deliveries from resources other than Network Resources will have a higher priority than any Non-Firm Point-To-Point Transmission Service under Part II of the Tariff.

28.5 Real Power Losses:

Real power losses are associated with all transmission service, excluding service for EIM participation. APS is not obligated to provide real power losses. The Transmission Customer is responsible for replacing losses associated with all

transmission service as calculated by APS. The applicable Transmission System Real Power Loss factor is 2.5% (for voltages 69 kV or higher). For customers subscribing for service at distribution voltage levels (service at voltage levels less that 69 kV), losses will be addressed in the service agreement.

28.6 Restrictions on Use of Service:

The Transmission Customer shall not use Network Integration Transmission Service under Part III of the Tariff for either (i) sales of capacity and energy to non-designated loads, (ii) direct or indirect provision of transmission service by the Transmission Customer to third parties, or (iii) sales for transmission service to retail direct access customers being provided power and energy under the Arizona Retail Competition Program within Arizona, except and unless in accordance with Section 28.7. All Transmission Customers taking Network Integration Transmission Service shall use Point-To-Point Transmission Service under Part II of the Tariff for any Third-Party Sale which requires use of APS' Transmission System, or Retail Network Integration Transmission Service under Part IV of the Tariff to serve retail loads under APS' direct access program within Arizona. The Transmission Provider shall specify any appropriate charges and penalties and all related terms and conditions applicable in the event that a Network Customer uses Network Integration Transmission Service or secondary service pursuant to Section 28.4 to facilitate a wholesale sale that does not serve a Network Load.

28.7 Participation in the EIM:

Notwithstanding the limitations in Section 28.6, Network Customers may participate in the EIM using a Network Integration Transmission Service Agreement without a requirement to terminate the designation of any Network Resource that is an APS EIM Participating Resource consistent with Section 30.3 of this Tariff and without a requirement to reserve additional Point-to-Point Transmission Service for such transactions.

29 Initiating Service

29.1 Condition Precedent for Receiving Service:

Subject to the terms and conditions of Part III of the Tariff, APS will provide Network Integration Transmission Service to any Eligible Customer, provided that (i) the Eligible Customer completes an Application for service as provided under Part III of the Tariff, (ii) the Eligible Customer and APS complete the technical arrangements set forth in Sections 29.3 and 29.4, (iii) the Eligible Customer executes a Service Agreement pursuant to Attachment F for service under Part III of the Tariff or requests in writing that APS file a proposed unexecuted Service Agreement with the Commission, and (iv) the Eligible Customer executes a Network Operating Agreement with APS pursuant to Attachment G, or requests in writing that APS file a proposed unexecuted Network Operating Agreement.

29.2 Application Procedures:

An Eligible Customer requesting or modifying service under Part III of the Tariff must submit an Application via e-mail to APS at the following e-mail address: oasisadm@apsc.com. If e-mail is inoperative, an Eligible Customer shall transmit the information by fax to (602) 250-1155. Information provided under this provision shall be provided to APS as far as possible in advance of the month in which service is to commence. In addition, any Eligible Customer submitting an initial Application for service under Part III of the Tariff shall submit a hard copy of the Application to Arizona Public Service Company, P.O. Box 53933, Station 3262, Phoenix, AZ 85072-3933.

Unless subject to the procedures in Section 2, Completed Applications for Network Integration Transmission Service will be assigned a priority according to the date and time the Application is received, with the earliest Application receiving the highest priority. Applications should be submitted by entering the information listed below on APS' OASIS. Customers can access Arizona Public Service Company's OASIS in order to register and secure services. Customers shall be permitted to submit hard copy information in accordance with that required below, and 18 C.F.R. § 2.20 (b) after submitting a formal request in outlining the customer's desired transmission service. If the customer cannot access APS' OASIS, or NAESB has not yet developed or FERC has not yet approved the specifications needed to allow such communications to occur over OASIS, assistance can be acquired by calling (602) 250-1128. A Completed Application shall provide all of the information included in 18 CFR § 2.20 including but not limited to the following:

29.2.1 The identity, address, telephone number and facsimile number of the party requesting service;

29.2.2 A statement that the party requesting service is, or will be upon commencement of service, an Eligible Customer under the Tariff;

29.2.3 A description of the Network Load at each delivery point. This description should separately identify and provide the Eligible Customer's best estimate of the total loads to be served at each transmission voltage level, and the loads to be served from each Transmission Provider substation at the same transmission voltage level. The description should include a ten (10) year forecast of summer and winter load and resource requirements beginning with the first year after the service is scheduled to commence;

29.2.4 The amount and location of any interruptible loads included in the Network Load. This shall include the summer and winter capacity requirements for each interruptible load (had such load not been interruptible), that portion of the load subject to interruption, the conditions under which an interruption can be implemented and any limitations on the amount and frequency of interruptions. An Eligible Customer should identify the amount of interruptible customer load (if any) included in the 10 year load forecast provided in response to 29.2.3 above;

29.2.5 A description of Network Resources (current and 10-year projection). For each on-system Network Resource, such description shall include:

- Unit size and amount of capacity from that unit to be designated as Network Resource
- VAR capability (both leading and lagging) of all generators
- Operating restrictions
- Any periods of restricted operations throughout the year
- Maintenance schedules
- Minimum loading level of unit
- Normal operating level of unit
- Any must-run unit designations required for system reliability or contract reasons
- Approximate variable generating cost ($/MWh) for redispatch computations
- Arrangements governing sale and delivery of power to third parties from generating facilities located in the APS Control Area, where only a portion of unit output is designated as a Network Resource

For each off-system Network Resource, such description shall include:

- Identification of the Network Resource as an off-system resource
- Amount of power to which the customer has rights
- Delivery point(s) to the Transmission Provider's Transmission System

- Transmission arrangements on the external transmission system(s)
- Operating restrictions, if any
  - Any periods of restricted operations throughout the year
  - Maintenance schedules
  - Minimum loading level of unit
  - Normal operating level of unit
  - Any must-run unit designations required for system reliability or contract reasons
- Approximate variable generating cost ($/MWH) for redispatch computations;

29.2.6 Description of Eligible Customer's transmission system:

- Load flow and stability data, such as real and reactive parts of the load, lines, transformers, reactive devices and load type, including normal and emergency ratings of all transmission equipment in a load flow format compatible with that used by APS
- Operating restrictions needed for reliability
- Operating guides employed by system operators
- Contractual restrictions or committed uses of the Eligible Customer's transmission system, other than the Eligible Customer's Network Loads and Resources
- Location of Network Resources described in subsection 29.2.5 Above
- 10 year projection of system expansions or upgrades
- Transmission System maps that include any proposed expansions or upgrades
- Thermal ratings of Eligible Customer's Control Area ties with other Control Areas; and

29.2.7 Service Commencement Date and the term of the requested Network Integration Transmission Service. The minimum term for Network Integration Transmission Service is one year.

29.2.8 A statement signed by an authorized officer from or agent of the Network Customer attesting that all of the network resources listed pursuant to Section 29.2.5 satisfy the following conditions; (1) the Network Customer owns the resource, has committed to purchase generation pursuant to an executed contract, or has committed to purchase generation where execution of a contract is contingent upon the availability of transmission service under Part III of the Tariff; and (2) the Network Resources do not include any resources, or any portion thereof, that are committed for sale to non-designated third party load or otherwise cannot be called upon to meet the Network customer's Network Load on a non-interruptible basis, except for purposes of fulfilling obligations under a reserve sharing program; and

29.2.9 Any additional information required of the Transmission Customer as specified in the Transmission Provider's planning process established in Attachment E or as specified for EIM purposes in Attachment Q.

Unless the Parties agree to a different time frame, APS must acknowledge the request within ten (10) days of receipt. The acknowledgment must include a date by which a response, including a Service Agreement, will be sent to the Eligible Customer. If an Application fails to meet the requirements of this section, APS shall notify the Eligible Customer requesting service within fifteen (15) days of receipt and specify the reasons for such failure. Wherever possible, APS will attempt to remedy deficiencies in the Application through informal communications with the Eligible Customer. If such efforts are unsuccessful, APS shall return the Application without prejudice to the Eligible Customer filing a new or revised Application that fully complies with the requirements of this section. The Eligible Customer will be assigned a new priority consistent with the date of the new or revised Application. APS shall treat this information consistent with the standards of conduct contained in Part 37 of the Commission's regulations.

29.3 Technical Arrangements to be Completed Prior to Commencement of Service:

Network Integration Transmission Service shall not commence until APS and the Transmission Customer, or a third party, have completed installation of all equipment specified under the Network Operating Agreement consistent with Good Utility Practice and any additional requirements reasonably and consistently imposed to ensure the reliable operation of the Transmission System. APS shall exercise reasonable efforts, in coordination with the Transmission Customer, to complete such arrangements as soon as practicable taking into consideration the Service Commencement Date.

29.4 Network Customer Facilities:

The provision of Network Integration Transmission Service shall be conditioned upon the Transmission Customer's constructing, maintaining and operating the facilities on its side of each delivery point or interconnection necessary to reliably deliver capacity and energy from APS' Transmission System to the Transmission Customer. The Transmission Customer shall be solely responsible for constructing or installing all facilities on the Transmission Customer's side of each such delivery point or interconnection.

29.5 Filing of Service Agreement:

APS will file Service Agreements with the Commission in compliance with applicable Commission regulations.

30 Network Resources

30.1 Designation of Network Resources:

Network Resources shall include all generation owned, purchased or leased by the Transmission Customer designated to serve Network Load under the Tariff. Network Resources may not include resources, or any portion thereof, that are committed for sale to non-designated third party load or otherwise cannot be called upon to meet the Transmission Customer's Network Load on a non-interruptible basis, except for purposes of fulfilling obligations under a reserve sharing program or participation in the EIM in accordance with Attachment Q, provided, however, that a designated Network Resource may be used to supply power to a third party on a firm basis to address or forestall an Emergency without a corresponding undesignation of that Network Resource. The supply of such power from the Network Resource may not last for more than two consecutive hours without undesignation, and, within one Working Day of the last delivery of such emergency power, the Network Customer shall provide a notice to APS containing the details of such supply. Within one Working Day of receipt of such notice from the Network Customer, APS will post the notice on its OASIS. Any owned or purchased resources that were serving the Transmission Customer's loads under firm agreements entered into on or before the Service Commencement Date shall initially be designated as Network Resources until the Transmission Customer terminates the designation of such resources.

30.2 Designation of New Network Resources:

The Transmission Customer may designate a new Network Resource by providing APS with as much advance notice as practicable. A designation of a new Network Resource must be made through the Transmission Provider's OASIS by a request for modification of service pursuant to an Application under Section 29. This request must include a statement that the new network resource satisfies the following conditions: (1) the Network Customer owns the resource, has committed to purchase generation pursuant to an executed contract, or has committed to purchase generation where execution of a contract is contingent upon the availability of transmission service under Part III of the Tariff; and (2) The Network Resources do not include any resources, or any portion thereof, that are committed for sale to non-designated third party load or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis, except for purposes of fulfilling obligations under a reserve sharing program. The Network Customer's request will be deemed deficient if it does not include this statement and the Transmission Provider will follow the procedures for a deficient application as described in Section 29.2 of the Tariff.

30.3 Termination of Network Resources:

The Transmission Customer may terminate the designation of all or part of a generating resource as a Network Resource by providing notification to APS through OASIS as soon as reasonably practicable, but not later than the firm scheduling deadline for the period of termination. Any request for termination of Network Resource status must be submitted on OASIS, and should indicate whether the request is for indefinite or temporary termination. A request for indefinite termination of Network Resource status must indicate the date and time that the termination is to be effective, and the identification and capacity of the resource(s) or portions thereof

to be indefinitely terminated. A request for temporary termination of Network Resources status must include the following:

(i) Effective date and time of temporary termination;

(ii) Effective date and time of redesignation, following period of temporary termination;

(iii) Identification and capacity of resource(s) or portions thereof to be temporarily terminated;

(iv) Resource description and attestation for redesignating the network resource following the temporary termination, in accordance with Section 30.2; and

(v) Identification of any related transmission service requests to be evaluated concomitantly with the request for temporary termination, such that the requests for undesignation and the request for these related transmission service requests must be approved or denied as a single request. The evaluation of these related transmission service requests must take into account the termination of the network resources identified in (iii) above, as well as all competing transmission service requests of higher priority.

As part of a temporary termination, a Network Customer may only redesignate the same resource that was originally designated, or a portion thereof, Requests to redesignate a different resource and/or a resource with increased capacity will be deemed deficient and the Transmission Provider will follow the procedures for a deficient application as described in Section 29.2 of the Tariff. Information provided by a Network Customer necessary to redesignate a Network Resource following a period of temporary termination may incorporate by reference unchanged information provided pursuant to Section 29 when that resource was first designated, provided, however, that a Network Customer must provide an attestation required by Section 29.2 in order to properly redesignate the Network Resource.

30.4 Operation of Network Resources:

The Transmission Customer shall not operate its designated Network Resources located in the Transmission Customer's or APS' Control Area such that the output of those facilities exceeds its designated Network Load, plus Non-Firm Sales delivered pursuant to Part II of the Tariff, plus losses, plus power sales under a reserve sharing program, plus sales that permit curtailment without penalty to serve its designated Network Load. This limitation shall not apply to APS EIM Participating Resources responding to Dispatch Instructions or to changes in the operation of a Transmission Customer’s Network Resources at the request of APS to respond to an emergency or other unforeseen condition which may impair or degrade the reliability of the Transmission System. For all Network Resources not physically connected with the Transmission Provider’s Transmission System, the Network Customer may not schedule delivery of energy in excess of the Network Resource’s capacity, as specified in the Network Customer’s Application pursuant to Section 29, unless the Network Customer supports such delivery within the Transmission Provider’s

Transmission System by either obtaining Point-to-Point Transmission Service or utilizing secondary service pursuant to Section 28.4. The Transmission Provider shall specify the rate treatment and all related terms and conditions applicable in the event that a Network Customer's schedule at the delivery point for a Network Resource not physically interconnected with the Transmission Provider's Transmission System exceeds the Network Resource's designated capacity, excluding energy delivered using secondary service or Point-to-Point Transmission Service. Power from a Substitute Designated Network Resource may be transmitted over network transmission capacity reserved under Section 29 for the booked out Network Resource, provided that the Network Customer must document the Substitute Designated Network Resource on its electronic tag submitted to APS. APS reserves the right to audit a Network Customer's compliance with this requirement. A Network Customer need not undesignate a Network Resource before engaging in a Bookout involving that Network Resource.

30.5 Network Customer Redispatch Obligation:

As a condition to receiving Network Integration Transmission Service, the Transmission Customer agrees to redispatch its Network Resources as requested by APS pursuant to Section 33.2. To the extent practical, the redispatch of resources pursuant to this section shall be on a least cost, non-discriminatory basis between all Transmission Customers, and APS.

30.6 Transmission Arrangements for Network Resources Not Physically Interconnected With The Transmission Provider:

The Transmission Customer shall be responsible for any arrangements necessary to deliver capacity and energy from a Network Resource not physically interconnected with APS' Transmission System. APS will undertake reasonable efforts to assist the Transmission Customer in obtaining such arrangements, including without limitation, providing any information or data required by such other entity pursuant to Good Utility Practice.

30.7 Limitation on Designation of Network Resources:

The Transmission Customer must demonstrate that it owns or has committed to purchase generation pursuant to an executed contract in order to designate a generating resource as a Network Resource. Alternatively, the Transmission Customer may establish that execution of a contract is contingent upon the availability of transmission service under Part III of the Tariff.

30.8 Use of Interface Capacity by the Network Customer:

There is no limitation upon a Transmission Customer's use of APS' Transmission System at any particular interface to integrate the Transmission Customer's Network Resources (or substitute economy purchases) with its Network Loads. However, a Transmission Customer's use of APS' total interface capacity with other transmission systems may not exceed the Transmission Customer's Load.

30.9 Network Customer Owned Transmission Facilities:

The Transmission Customer that owns existing transmission facilities that are integrated with APS' Transmission System may be eligible to receive consideration either through a billing credit or some other mechanism. In order to receive such consideration the Transmission Customer must demonstrate that its transmission facilities are integrated into the plan or operations of APS to serve its power and transmission customers. For facilities added by the Transmission Customer subsequent to July 13, 2007, the Transmission Customer shall receive credit for such transmission facilities added if such facilities are integrated into the operations of the Transmission Provider's facilities; provided however, the Network Customer's transmission facilities shall be presumed to be integrated if such transmission facilities, if owned by the Transmission Provider, would be eligible for inclusion in the Transmission Provider's annual transmission revenue requirement as specified in Attachment H. Calculation of any credit under this subsection shall be addressed in either the Transmission Customer's Service Agreement or any other agreement between the Parties.

31 Designation of Network Load

31.1 Network Load:

The Transmission Customer must designate the individual Network Loads on whose behalf APS will provide Network Integration Transmission Service. The Network Loads shall be specified in the Service Agreement.

31.2 New Network Loads Connected With the Transmission Provider:

The Transmission Customer shall provide APS with as much advance notice as reasonably practicable of the designation of new Network Load that will be added to its Transmission System. A designation of new Network Load must be made through a modification of service pursuant to a new Application. APS will use due diligence to install any transmission facilities required to interconnect a new Network Load designated by the Transmission Customer. The costs of new facilities required to interconnect a new Network Load shall be determined in accordance with the procedures provided in Section 32.4 and shall be charged to the Transmission Customer in accordance with Commission policies.

31.3 Network Load Not Physically Interconnected with the Transmission Provider:

This section applies to both initial designation pursuant to Section 31.1 and the subsequent addition of new Network Load not physically interconnected with APS. To the extent that the Transmission Customer desires to obtain transmission service for a load outside APS' Transmission System, the Transmission Customer shall have the option of (1) electing to include the entire load as Network Load for all purposes under Part III of the Tariff and designating Network Resources in connection with such additional Network Load, or (2) excluding that entire load from its Network Load and purchasing Point-To-Point Transmission Service under Part II of the Tariff. To the extent that the Transmission Customer gives notice of its intent to add a new Network Load as part of its Network Load pursuant to this section the request must be made through a modification of service pursuant to a new Application.

31.4 New Interconnection Points:

To the extent the Transmission Customer desires to add a new Delivery Point or interconnection point between APS' Transmission System and a Network Load, the Transmission Customer shall provide APS with as much advance notice as reasonably practicable.

31.5 Changes in Service Requests:

Under no circumstances shall the Transmission Customer's decision to cancel or delay a requested change in Network Integration Transmission Service (e.g. the addition of a new Network Resource or designation of a new Network Load) in any way relieve the Transmission Customer of its obligation to pay the costs of transmission facilities constructed by APS and charged to the Transmission Customer as reflected in the Service Agreement. However, APS must treat any

requested change in Network Integration Transmission Service in a non-discriminatory manner.

31.6 Annual Load and Resource Information Updates:

The Transmission Customer shall provide APS with annual updates of Network Load and Network Resource forecasts consistent with those included in its Application for Network Integration Transmission Service under Part III of the Tariff including, but not limited to, any information provided under section 29.2.9 pursuant to the Transmission Provider’s planning process in Attachment E. The Transmission Customer also shall provide APS with timely written notice of material changes in any other information provided in its Application relating to the Transmission Customer's Network Load, Network Resources, its transmission system or other aspects of its facilities or operations affecting APS' ability to provide reliable service.

32 Additional Study Procedures For Network Integration Transmission Service Requests

32.1 Notice of Need for System Impact Study:

After receiving (i) an initial request for Network Integration Transmission Service, (ii) a request for a change in Network Loads and/or Network Resources, or (iii) a request for changes to existing and/or for additional delivery points, APS shall determine on a non-discriminatory basis whether a System Impact Study is needed. A description of APS' methodology for completing a System Impact Study is provided in Attachment D. If APS determines that a System Impact Study is necessary to accommodate the requested service, it shall so inform the Eligible Customer, as soon as practicable. In such cases, APS shall within thirty (30) days of receipt of a Completed Application, tender a System Impact Study Agreement pursuant to which the Eligible Customer shall agree to reimburse APS for performing the required System Impact Study. For a service request to remain a Completed Application, the Eligible Customer shall execute the System Impact Study Agreement and return it to APS within fifteen (15) days. If the Eligible Customer elects not to execute the System Impact Study Agreement, its Application shall be deemed withdrawn.

32.2 System Impact Study Agreement and Cost Reimbursement:

32.2.1 The System Impact Study Agreement will clearly specify APS' estimate of the actual cost, and time for completion of the System Impact Study. The charge shall not exceed the actual cost of the study. In performing the System Impact Study, APS shall rely, to the extent reasonably practicable, on existing transmission planning studies. The Eligible Customer will not be assessed a charge for such existing studies; however, the Eligible Customer will be responsible for charges associated with any modifications to existing planning studies that are reasonably necessary to evaluate the impact of the Eligible Customer's request for service on the Transmission System.

32.2.2 If in response to multiple Eligible Customers requesting service in relation to the same competitive solicitation, a single System Impact Study is sufficient for APS to accommodate the service requests, the costs of that study shall be pro-rated among the Eligible Customers.

32.2.3 For System Impact Studies that APS conducts on its own behalf, APS shall record the cost of the System Impact Studies pursuant to Section 8.

32.3 System Impact Study Procedures:

Upon receipt of an executed System Impact Study Agreement, APS will use due diligence to complete the required System Impact Study within a sixty (60) day period. The System Impact Study shall identify (1) any system constraints, identified with specificity by transmission element or flowgate, (2) redispatch

options (when requested by an Eligible Customer) including, to the extent possible, an estimate of the cost of redispatch, (3) available options for installation of automatic devices to curtail service (when requested bya n Eligible Customer), and (4) additional Direct Assignment Facilities or Network Upgrades required to provide the requested service. For customers requesting the study of redispatch options, the System Impact Study shall (1) identify all resources located within the Transmission Provider's Control Area that can significantly contribute toward relieving the system constraint. If the Transmission Provider possesses information indicating that any resource outside its Control Area could relieve the constraint, it shall identify each such resource in the System Impact Study. In the event that APS is unable to complete the required System Impact Study within such time period, it shall so notify the Eligible Customer and provide an estimated completion date along with an explanation of the reasons why additional time is required to complete the required studies. A copy of the completed System Impact Study and related work papers shall be made available to the Eligible Customer as soon as the System Impact Study is complete. APS will use the same due diligence in completing the System Impact Study for an Eligible Customer as it uses when completing studies for itself. APS shall notify the Eligible Customer immediately upon completion of the System Impact Study if the Transmission System will be adequate to accommodate all or part of a request for service or that no costs are likely to be incurred for new transmission facilities or upgrades. In order for a request to remain a Completed Application, within fifteen (15) days of completion of the System Impact Study the Eligible Customer must execute a Service Agreement or request the filing of an unexecuted Service Agreement, or the Application shall be deemed terminated and withdrawn.

32.4 Facilities Study Procedures:

If a System Impact Study indicates that additions or upgrades to the Transmission System are needed to supply the Eligible Customer's service request, then APS, within thirty (30) days of the completion of the System Impact Study, shall tender to the Eligible Customer a Facilities Study Agreement pursuant to which the Eligible Customer shall agree to reimburse APS for performing the required Facilities Study. For a service request to remain a Completed Application, the Eligible Customer shall execute the Facilities Study Agreement and return it to APS within fifteen (15) days. If the Eligible Customer elects not to execute the Facilities Study Agreement, its Application shall be deemed withdrawn. Upon receipt of an executed Facilities Study Agreement, APS will use due diligence to complete the required Facilities Study within a sixty (60) day period. If APS is unable to complete the Facilities Study in the allotted time period, APS shall notify the Eligible Customer and provide an estimate of the time needed to reach a final determination along with an explanation of the reasons that additional time is required to complete the study. When completed, the Facilities Study will include a good faith estimate of (i) the cost of Direct Assignment Facilities to be charged to the Eligible Customer, (ii) the Eligible Customer's appropriate share of the cost of any required Network Upgrades, and (iii) the time required to complete such construction and initiate the requested service. The Eligible Customer shall

provide APS with a letter of credit or other reasonable form of security acceptable to APS equivalent to the costs of new facilities or upgrades consistent with commercial practices as established by the Uniform Commercial Code. The Eligible Customer shall have thirty (30) days to execute a Service Agreement or request the filing of an unexecuted Service Agreement and provide the required letter of credit or other form of security or the request no longer will be a Completed Application and shall be deemed terminated and withdrawn.

32.5 Penalties for Failure to Meet Study Deadlines:

Section 19.9 defines penalties that apply for failure to meet the 60-day study completion due diligence deadlines for System Impact Studies and Facilities Studies under Part II of the Tariff. These same requirements and penalties apply to service under Part III of the Tariff.

32.6 Clustering of Network Service Studies:

The Eligible Customer may request that APS cluster the System Impact Studies and/or Facilities Studies. The Eligible Customer shall notify APS prior to signing a study agreement if the Eligible Customer requests its System Impact Study or Facilities Study to be clustered with another Eligible Customer's System Impact Study or Facilities Study. In this notification, the Eligible Customer shall identify the other Eligible Customer(s) (and associated requests(s) for Transmission Service) with which it would like to be clustered, and shall indicate whether the other Eligible Customer(s) with which it requests clustering support(s) the clustering request. APS may, in its discretion, notify Eligible Customers who have submitted Transmission Service requests about potential clustering opportunities. APS will consider clustering requests provided that clustering will facilitate the performance of such studies, the design of upgrade(s) or the addition(s) to the Transmission System in response to such requests. APS will not consider a clustering request if; (i) the cluster is not supported by all Eligible Customers proposed to be in the cluster; (ii) APS determines that the requests should be studied individually rather than in a cluster (e.g., studies are geographically diverse or otherwise impact the transmission system in diverse ways such that clustering is not reasonable); or (iii) APS determines that granting the clustering request is likely to cause APS to miss any deadline set forth in this Tariff.

All Eligible Customers involved in a cluster study will be required to execute the System Impact Study Agreement and/or Facilities Study Agreement which provides that the System Impact Study or Facilities Study will be performed as a cluster study. The study will be performed in accordance with the procedures set forth in section 32.3 and 32.4 with the exception that the timeline for performing the System Impact Study or Facilities Study will begin to run after all Eligible Customers who have notified APS of their intent to participate in a cluster study have executed a System Impact Study Agreement or Facilities Study Agreement. Once Eligible Customers agree to have APS cluster their System Impact Studies or Facility Studies, the Eligible Customers may request to opt out of the cluster. APS will not grant any request to opt out of a cluster if, in the APS's discretion,

APS determines that granting the request to opt out of the cluster is likely to cause APS to miss any deadline set forth in this Tariff. If a request by an Eligible Customer to opt out of a cluster study is granted by APS, APS will evaluate the impact of the Eligible Customer's withdrawal and may revise, at the APS's discretion, the cluster study process and results accordingly, APS, at its discretion, may determine that additional time may be required to complete the study as a result of any Eligible Customer opting out, APS shall communicate any delays in writing to the other participants in the cluster and provide a good faith estimate on a revised completion date.

Eligible Customers that have agreed to cluster their System Impact Study shall be responsible for reimbursing APS for performing the clustered System Impact Study in equal shares, unless the Eligible Customers in the cluster independently agree to an alternate cost-sharing structure, in which case the Eligible Customers shall provide APS with a copy of that alternate agreement, as executed. A participating Eligible Customer that opts out of the clustered System Impact Study process shall remain liable for its equal share of APS's costs in performing the cluster study. Each Facilities Study that is clustered together under this section shall be treated as a single Facilities Study and shall be performed pursuant to a single Facilities Study Agreement entered into among APS and each of the Eligible Customer(s) that have submitted a service request that has been clustered together. Unless otherwise agreed in such agreement, the cost for the completion of the Facilities Study shall be allocated among such Eligible Customer(s) in proportion to the amounts of their respective requests for service (Long-Term Firm Point-to-Point Transmission Service or Network Integration Transmission Service).

If APS determines that it will not have adequate transfer capability to satisfy the full amount as requested in the Completed Applications by Eligible Customer(s) for service for which the studies have been clustered together. APS nonetheless shall be obligated to offer and provide the portion of the requested service that can be accommodated without addition of any facilities; such portion shall be allocated among such Eligible customer(s) in proportion to the amounts of their respective requests for transmission service. However, APS shall not be obligated to provide the incremental amount of requested service that requires the addition of facilities or upgrades to the Transmission System until such facilities or upgrades have been placed in service. APS shall not be required to undertake any Transmission System upgrade(s) or addition(s) identified by a clustered Facilities Study unless all Eligible Customer(s) for service for which the studies have been clustered together sign Service Agreements under which the costs of such upgrade(s) or addition(s) are recoverable (to the extent such costs are (i) Direct Assignment Facilities costs or (ii) incremental costs that exceed the applicable embedded cost). If any of such Eligible Customer(s) fails to execute a Service Agreement (or request the filing of an unexecuted Service Agreement) and provide the required letter of credit or other form of security, the service request of each such Eligible Customer shall be deemed to be terminated and withdrawn.

This section 32.6 sets forth the principal criteria and requirements to be applied to APS' consideration of clustering studies. Additional criteria and requirements may be appropriate for any particular request for clustering of studies and may be applied by APS to such request.

33 Load Shedding and Curtailments

33.1 Procedures:

Prior to the Service Commencement Date, APS and the Transmission Customer shall establish Load Shedding and Curtailment procedures pursuant to the Network Operating Agreement with the objective of responding to contingencies on the Transmission System. The Parties will implement such programs during any period when APS determines that a system contingency exists and such procedures are necessary to alleviate such contingency. APS will notify all affected Transmission Customers in a timely manner of any scheduled Curtailment.

33.2 Transmission Constraints:

During any period when APS determines that a transmission constraint exists on the Transmission System, and such constraint may impair the reliability of APS' system, APS will take whatever actions, consistent with Good Utility Practice, that are reasonably necessary to maintain the reliability of APS' system. To the extent APS determines that the reliability of the Transmission System can be maintained by redispatching resources, APS will initiate procedures pursuant to the Network Operating Agreement to redispatch all Network Resources and APS' own resources on a least-cost basis without regard to the ownership of such resources. Any redispatch under this section may not unduly discriminate between APS' use of the Transmission System on behalf of its Native Load Customers and any Transmission Customer's use of the Transmission System to serve its designated Network Load.

33.3 Cost Responsibility for Relieving Transmission Constraints:

Whenever APS implements least-cost redispatch procedures in response to a transmission constraint, APS and Transmission Customers will each bear a proportionate share of the total redispatch cost based on their respective Load Ratio Shares.

33.4 Curtailments of Scheduled Deliveries:

If a transmission constraint on APS' Transmission System cannot be relieved through the implementation of least-cost redispatch procedures and APS determines that it is necessary to Curtail scheduled deliveries, the Parties shall Curtail such schedules in accordance with the Network Operating Agreement or pursuant to the Transmission Loading Relief procedures specified in Attachment N.

33.5 Allocation of Curtailments:

APS shall, on a non-discriminatory basis, Curtail the transaction(s) that effectively relieve the constraint. However, to the extent practicable and consistent with Good Utility Practice, any Curtailment will be shared by APS and Transmission Customer in proportion to their respective Load Ratio Shares. APS

shall not direct the Transmission Customer to Curtail schedules to an extent greater than APS would Curtail APS' schedules under similar circumstances.

33.6 Load Shedding:

To the extent that a system contingency exists on APS' Transmission System and APS determines that it is necessary for APS and the Transmission Customer to shed load, the Parties shall shed load in accordance with previously established procedures under the Network Operating Agreement.

33.7 System Reliability:

Notwithstanding any other provisions of this Tariff, APS reserves the right, consistent with Good Utility Practice and on a not unduly discriminatory basis, to Curtail Network Integration Transmission Service without liability on APS' part for the purpose of making necessary adjustments to, changes in, or repairs on its lines, substations and facilities, and in cases where the continuance of Network Integration Transmission Service would endanger persons or property. In the event of any adverse condition(s) or disturbance(s) on APS' Transmission System or on any other system(s) directly or indirectly interconnected with APS' Transmission System, APS, consistent with Good Utility Practice, also may Curtail Network Integration Transmission Service in order to (i) limit the extent or damage of the adverse condition(s) or disturbance(s), (ii) prevent damage to generating or transmission facilities, or (iii) expedite restoration of service. APS will give the Transmission Customer as much advance notice as is practicable in the event of such Curtailment. Any Curtailment of Network Integration Transmission Service will be not unduly discriminatory relative to APS' use of the Transmission System on behalf of its Native Load Customers. Section 6.8 of Attachment G establishes the rate treatment and all related terms and conditions applicable in the event that the Transmission Customer fails to respond to established Load Shedding and Curtailment procedures.

34 Rates and Charges

The Transmission Customer shall pay APS for any Direct Assignment Facilities, Ancillary Services, and applicable study costs, consistent with Commission policy, along with the following:

34.1 Monthly Demand Charge:

The Transmission Customer shall pay a monthly Demand Charge, which shall be determined by multiplying its Load Ratio Share times one twelfth (1/12) of APS' Annual Transmission Revenue Requirement specified in Attachment H.

34.2 Determination of Network Customer's Monthly Network Load:

The Transmission Customer's monthly Network Load is its hourly load (including its designated Network Load not physically interconnected with APS under Section 31.3) coincident with APS' Monthly Transmission System Peak.

34.3 Determination of Transmission Provider's Monthly Transmission System Load:

APS' monthly Transmission System load is APS' Monthly Transmission System Peak minus the coincident peak usage of all Firm Point-To-Point Transmission Service customers pursuant to Part II of this Tariff plus the Reserved Capacity of all Firm PointTo-Point Transmission Service customers.

34.4 Redispatch Charge:

The Transmission Customer shall pay a Load Ratio Share of any redispatch costs allocated between the Transmission Customer and APS pursuant to Section 33. To the extent that APS incurs an obligation to the Transmission Customer for redispatch costs in accordance with Section 33, such amounts shall be credited against the Transmission Customer's bill for the applicable month.

34.5 Stranded Cost Recovery:

APS may seek to recover stranded costs from the Transmission Customer pursuant to this Tariff in accordance with the terms, conditions and procedures set forth in FERC Order No. 888. However, APS must separately file any proposal to recover stranded costs under Section 205 of the Federal Power Act.

34.6 Unreserved Uses:

A Network Customer that engages in an unreserved use of the Transmission System (as specified in paragraphs 834, 839, and 842 of Order No. 890) will be charged for that unreserved use based on the rate for Firm Point-to-Point Transmission Service, and in accordance with the requirements of Schedule 7, Section 1.D (entitled Overrun of Reserved Transmission Capacity) of the Tariff.

35 Operating Arrangements

35.1 Operation under The Network Operating Agreement:

The Transmission Customer shall plan, construct, operate and maintain its facilities in accordance with Good Utility Practice and in conformance with the Network Operating Agreement.

35.2 Network Operating Agreement:

The terms and conditions under which the Transmission Customer shall operate its facilities and the technical and operational matters associated with the implementation of Part III of the Tariff shall be specified in the Network Operating Agreement. The Network Operating Agreement shall provide for the Parties to (i) operate and maintain equipment necessary for integrating the Transmission Customer within APS' Transmission System (including, but not limited to, remote terminal units, metering, communications equipment and relaying equipment), (ii) transfer data between APS and the Transmission Customer (including, but not limited to, heat rates and operational characteristics of Network Resources, generation schedules for units outside APS' Transmission System, interchange schedules, unit outputs for redispatch required under Section 33, voltage schedules, loss factors and other real time data), (iii) use software programs required for data links and constraint dispatching, (iv) exchange data on forecasted loads and resources necessary for long-term planning, and (v) address any other technical and operational considerations required for implementation of Part III of the Tariff, including scheduling protocols. The Network Operating Agreement will recognize that the Transmission Customer shall either (i) operate as a Control Area under applicable guidelines of the Electric Reliability Organization (ERO) as defined in 18 C.F.R. § 39.1, (ii) satisfy its Control Area requirements, including all necessary Ancillary Services, by contracting with APS, or (iii) satisfy its Control Area requirements, including all necessary Ancillary Services, by contracting with another entity, consistent with Good Utility Practice, which satisfies the applicable reliability guidelines of the ERO. APS shall not unreasonably refuse to accept contractual arrangements with another entity for Ancillary Services. The Network Operating Agreement is included in Attachment G.

35.3 Network Operating Committee:

A Network Operating Committee (Committee) shall be established to coordinate operating criteria for the Parties' respective responsibilities under the Network Operating Agreement. Each Transmission Customer shall be entitled to have at least one representative on the Committee. The Committee shall meet from time to time as need requires, but no less than once each calendar year.

IV. RETAIL NETWORK INTEGRATION TRANSMISSION SERVICE

PREAMBLE

Retail Network Integration Transmission Service is intended only for APS' retail customers purchasing power and energy under the Arizona Retail Competition Program. Only Scheduling Coordinators responsible for scheduling power and energy to retail customers shall be eligible for Retail Network Integration Transmission Service under Part IV of the Tariff. APS will provide Retail Network Integration Transmission Service pursuant to the applicable terms and conditions contained in the Tariff and Service Agreement. Retail Network Integration Transmission Service allows the Scheduling Coordinator to integrate, economically dispatch and regulate its current and planned Network Resources to serve its Retail Network Load in a manner comparable to that in which APS utilizes its Transmission System to serve its Native Load Customers. Retail Network Integration Transmission Service also may be used by the Scheduling Coordinator to deliver economy energy purchases to its Retail Network Load from non-designated resources on an as-available basis without additional charge. Transmission service for Third Party Sales to non-designated loads will be provided pursuant to the applicable terms and conditions of Part II of the Tariff.

36 Nature of Retail Network Integration Transmission Service

36.1 Scope of Service:

Retail Network Integration Transmission Service is a transmission service that recognizes the unique requirements for service to APS' retail consumers taking service at the distribution voltage level. It allows Scheduling Coordinators to efficiently and economically utilize their Network Resources (as well as other non-designated generation resources) to serve their Retail Network Load located in APS' Control Area. The Scheduling Coordinator taking Retail Network Integration Transmission Service must obtain or provide Ancillary Services pursuant to Section 3.

36.2 Transmission Provider Responsibilities:

APS will plan, construct, operate and maintain its Transmission System in accordance with Good Utility Practice and its planning obligations in Attachment E in order to provide the Scheduling Coordinator with Retail Network Integration Transmission Service over APS' Transmission System. APS, on behalf of its Standard Offer Customers, shall be required to designate resources and loads in the same manner as any Transmission Customer under Part III of this Tariff or Scheduling Coordinator under Part IV of the Tariff. This information must be consistent with the information used by APS to calculate available transfer capability. APS shall include the Retail Network Load of the Scheduling Coordinator's Customers in its Transmission System planning and shall, consistent with Good Utility Practice and Attachment E, endeavor to construct and place into service sufficient transfer capability to deliver the Scheduling Coordinator's Network Resources to serve its Retail Network Load on a basis comparable to APS' delivery of its own generating and purchased resources to its Native Load Customers.

36.3 Retail Network Integration Transmission Service:

APS will provide firm transmission service over its Transmission System to the Scheduling Coordinator for the delivery of capacity and energy from its designated Network Resources to serve its Retail Network Loads on a basis that is comparable to APS' use of the Transmission System to reliably serve its Standard Offer Customers.

36.4 Secondary Service:

The Scheduling Coordinator may use APS' Transmission System to deliver energy to its Retail Network Loads from resources that have not been designated as Network Resources. Such energy shall be transmitted, on an as-available basis, at no additional charge. Secondary service shall not require the filing of an Application for Network Integration Transmission Service under the Tariff. However, all other requirements of Part IV of the Tariff (except for transmission rates) shall apply to secondary service. Deliveries from resources other than Network Resources will have a higher priority than any Non-Firm Point-To-Point Transmission Service under Part II of the Tariff.

36.5 Real Power Losses:

Real power losses are associated with all transmission service, excluding service for EIM participation. APS is not obligated to provide real power losses. The Transmission Customer is responsible for replacing losses associated with all transmission service as calculated by APS. The applicable Transmission System Real Power Loss factor is 2.5% (for voltages 69 kV or higher). For customers subscribing for service at distribution voltage levels (service at voltage levels less that 69 kV), losses will be addressed in the service agreement.

36.6 Restrictions on Use of Service:

The Scheduling Coordinator shall not use Retail Network Integration Transmission Service for either (i) sales of capacity and energy to non-designated APS retail loads, (ii) sales of capacity and energy to wholesale loads, or (iii) direct or indirect provision of transmission service by the Scheduling Coordinator to third parties, except and unless in accordance with Section 36.7. All Scheduling Coordinators taking Retail Network Integration Transmission Service shall use Point-To-Point Transmission Service under Part II of the Tariff for any Third-Party Sale which requires use of APS' Transmission System. The Transmission Provider shall specify any appropriate charges and penalties and all related terms and conditions applicable in the event that a Retail Network Customer uses Retail Network Integration Transmission Service or secondary service pursuant to Section 36.4 to facilitate a wholesale sale that does not serve a Retail Network Load.

36.7 Participation in the EIM

Notwithstanding the limitations in Section 36.6, Retail Network Customers may participate in the EIM using a Retail Network Integration Transmission Service Agreement without a requirement to terminate the designation of any Network Resource that is a APS EIM Participating Resource consistent with Section 38.3 of this Tariff and without a requirement to reserve additional Point-to-Point Transmission Service for such a transaction.

37 Initiating Service

37.1 Condition Precedent for Receiving Service:

Subject to the terms and conditions of Part IV of the Tariff, APS will provide Retail Network Integration Transmission Service to any Scheduling Coordinator, provided that (i) the Scheduling Coordinator completes an Application for service as provided under Part IV of the Tariff, (ii) the Scheduling Coordinator and APS complete the technical arrangements set forth in Sections 37.3 and 37.4, (iii) the Scheduling Coordinator executes a Service Agreement pursuant to Attachment J for service under Part IV of the Tariff or requests in writing that APS file a proposed unexecuted Service Agreement with the Commission, (iv) the Scheduling Coordinator agrees to comply with all the provisions of the protocols in Attachment L, and (v) demonstrates to APS that it is capable of performing the duties described in R14-2-1610(G) of the Arizona Administrative Code regarding Retail Electric Competition.

37.2 Application Procedures:

A Scheduling Coordinator requesting or modifying service under Part IV of the Tariff must submit an Application via e-mail to APS at the following e-mail address: oasisadm@apsc.com. If e-mail is inoperative, a Scheduling Coordinator shall transmit the information by fax to (602) 250-1155. Information provided under this provision shall be provided to APS as far as possible in advance of the month in which service is to commence. In addition, any Eligible Customer submitting an initial Application for service under Part IV of the Tariff shall submit a hard copy of the Application to Arizona Public Service Company, P.O. Box 53933, Station 3262, Phoenix, Arizona 85072-3933.

Completed Applications for Retail Network Integration Transmission Service by Scheduling Coordinators requesting to serve existing APS retail loads shall be deemed to have priority in scheduling for those existing customer loads. For service to new retail loads, Completed Applications for Retail Network Integration Transmission Service by Scheduling Coordinators will be assigned a priority according to the date and time the Application is received, with the earliest Application receiving the highest priority. Applications should be submitted by entering the information listed below on APS' OASIS. If the customer cannot access APS' OASIS, or NAESB has not yet developed or FERC has not yet approved the specifications needed to allow such communications to occur over OASIS, assistance can be acquired by calling (602) 250-1128.

A Scheduling Coordinator shall provide a Completed Application, to the extent possible, containing the Scheduling Coordinator's best estimates of all the information included in 18 CFR § 2.20, and Section 29.2 in Part III of this Tariff.

37.3 Technical Arrangements to be Completed Prior to Commencement of Service:

Retail Network Integration Transmission Service shall not commence until APS and the Scheduling Coordinator, or a third party, have completed installation of all equipment specified in the Retail Network Operating Agreement consistent with Good Utility Practice and any additional requirements reasonably and consistently imposed to ensure the reliable operation of the Transmission System. APS shall exercise reasonable efforts, in coordination with the Scheduling Coordinator, to complete such arrangements as soon as practicable taking into consideration the Service Commencement Date.

37.4 Retail Customer Facilities of Scheduling Coordinators:

The provision of Retail Network Integration Transmission Service shall be conditioned upon the Scheduling Coordinator's Customers and ESP's having to construct, maintain and operate the facilities on their side of each delivery point or interconnection necessary to reliably deliver capacity and energy from APS' Transmission System to the Scheduling Coordinator's Customers. The Scheduling Coordinator's Customers shall be solely responsible for constructing or installing all facilities on their side of each such delivery point or interconnection.

37.5 Filing of Service Agreement:

APS will file Service Agreements between APS and the Scheduling Coordinator with the Commission in compliance with applicable Commission regulations.

38 Network Resources

38.1 Designation of Network Resources:

Network Resources shall include all generation owned, purchased, leased or secured by the Scheduling Coordinator, or the ESP on whose behalf the Scheduling Coordinator is securing service, designated to serve Retail Network Load under the Tariff. Network Resources may not include resources, or any portion thereof, that are committed for sale to non-designated third party load or otherwise cannot be called upon to meet the Retail Network Load of the Scheduling Coordinator's Customers on a non-interruptible basis, provided, however, that a designated Network Resource may be used to supply power to a third party on a firm basis to address or forestall an Emergency without a corresponding undesignation of that Network Resource, except for participation in the EIM in accordance with Attachment Q. The supply of such power from the Network Resource may not last for more than two consecutive hours without undesignation, and, within one Working Day of the last delivery of such emergency power, the Network Customer shall provide a notice to APS containing the details of such supply. Within one Working Day of receipt of such notice from the Scheduling Coordinator, APS will post the notice on its OASIS. Any owned or purchased resources that were serving the loads of the Scheduling Coordinator's Customers under firm agreements entered into on or before the Service Commencement Date shall initially be designated as Network Resources until the Scheduling Coordinator terminates the designation of such resources.

38.2 Designation of New Network Resources:

Shall be consistent with the requirements set forth in Part III, Section 30.2 of the Tariff.

38.3 Termination of Network Resources:

Shall be consistent with the requirements set forth in Part III, Section 30.3 of the Tariff.

38.4 Operation of Network Resources:

Shall be consistent with the requirements set forth in Part III, Section 30.4 of the Tariff.

38.5 Scheduling Coordinator Redispatch Obligation:

As a condition to receiving Retail Network Integration Transmission Service, the Scheduling Coordinator agrees to redispatch its Network Resources as set forth in the Protocols contained in Attachment L. To the extent practical, the redispatch of resources pursuant to this section shall be on a least cost, non-discriminatory basis between all Scheduling Coordinators, and APS.

38.6 Transmission Arrangements for Network Resources Not Physically Interconnected With The Transmission Provider:

Shall be consistent with the requirements set forth in Part III, Section 30.6 of the Tariff.

38.7 Limitation on Designation of Network Resources:

Shall be consistent with the requirements set forth in Part III, Section 30.7 of the Tariff.

38.8 Use of Interface Capacity by the Transmission Customer:

There is no limitation upon a Scheduling Coordinator's use of APS' Transmission System at any particular non-constrained interface to integrate the Scheduling

Coordinator's Network Resources (or substitute economy purchases) with its Retail Network Loads. However, a Scheduling Coordinator's use of APS' total interface capacity with other transmission systems may not exceed the load of the Scheduling Coordinator's Customers.

If a Scheduling Coordinator requests Transmission Service at a constrained interface, its allocation of capacity at such interface(s) shall be determined in accordance with the Allocation Protocol in Attachment L.

39 Designation of Retail Network Load

39.1 Retail Network Load:

The Scheduling Coordinator must designate the individual Retail Network Loads in accordance with the Direct Access Service Request process as set forth in Attachment L.

39.2 New Retail Network Loads Connected With the Transmission Provider:

The Scheduling Coordinator shall provide APS with as much advance notice as reasonably practicable of the designation of new Retail Network Load that will be added to its Transmission System. A designation of new Retail Network Load must be made through a modification of service pursuant to a new Application. APS will use due diligence to install any transmission facilities required to interconnect a new Retail Network Load designated by the Scheduling Coordinator. The costs of new facilities required to interconnect a new Retail Network Load shall be determined in accordance with the procedures provided in Section 32 and shall be charged to the Scheduling Coordinator in accordance with Commission policies.

39.3 New Interconnection Points:

To the extent the Scheduling Coordinator desires to add a new Delivery Point or interconnection point between APS' Transmission System and a Retail Network Load, the Scheduling Coordinator shall provide APS with as much advance notice as reasonably practicable.

39.4 Changes in Service Requests:

Under no circumstances shall the Scheduling Coordinator's decision to cancel or delay a requested change in Retail Network Integration Transmission Service (e.g. the addition of a new Network Resource or designation of a new Retail Network Load) in any way relieve the Scheduling Coordinator of its obligation to pay the costs of transmission facilities constructed by APS and charged to the Scheduling Coordinator as reflected in the Service Agreement. However, APS must treat any requested change in Retail Network Integration Transmission Service in a non-discriminatory manner.

39.5 Annual Load and Resource Information Updates:

Updates of a Scheduling Coordinator's Retail Network Load and Network Resources shall be accomplished through procedures conducted within the AZ ISA Operating Committee.

The Scheduling Coordinator shall provide APS with timely written notice of material changes in its Retail Network Loads and Network Resources, or any other pertinent information, that may occur after such information was reported in the AZ ISA Operating Committee meetings including, but not limited to, any

information provided under section 37.2 pursuant to the Transmission Provider's planning process in Attachment E.

40 Additional Study Procedures For Retail Network Integration Transmission Service Requests

Should studies be required to determine ability to provide Retail Network Integration Transmission Service, such studies will be performed in accordance with Section 32 in Part III of the Tariff.

41 Load Shedding and Curtailments

41.1 Procedures:

Prior to the Service Commencement Date, APS and the Scheduling Coordinator shall establish Load Shedding and Curtailment procedures pursuant to the Protocols contained in Attachment L of the Tariff.

41.2 System Reliability:

Notwithstanding any other provisions of this Tariff, APS reserves the right, consistent with Good Utility Practice and on a not unduly discriminatory basis, to curtail Retail Network Integration Transmission Service without liability on APS' part for the purpose of making necessary adjustments to, changes in, or repairs on its lines, substations and facilities, and in cases where the continuance of Retail Network Integration Transmission Service would endanger persons or property. In the event of any adverse condition(s) or disturbance(s) on APS' Transmission System or on any other system(s) directly or indirectly interconnected with APS' Transmission System, APS, consistent with Good Utility Practice, also may curtail Retail Network Integration Transmission Service in order to (i) limit the extent or damage of the adverse condition(s) or disturbance(s), (ii) prevent damage to generating or transmission facilities, or (iii) expedite restoration of service. APS will give the Scheduling Coordinator as much advance notice as is practicable in the event of such Curtailment. Any Curtailment of Retail Network Integration Transmission Service will be not unduly discriminatory relative to APS' use of the Transmission System on behalf of its Standard Offer Customers

41.2.1 Cost Responsibility for Relieving Transmission Constraints:

Whenever APS implements least-cost redispatch procedures in response to a transmission constraint, APS and Scheduling Coordinators will each bear a proportionate share of the total redispatch cost based on their respective Load Ratio Shares.

42 Rates and Charges

The Scheduling Coordinator shall pay APS for any Direct Assignment Facilities, Ancillary Services, and applicable study costs, consistent with Commission policy, along with the following:

42.1 Monthly Charge:

To accommodate retail access, the Scheduling Coordinator shall pay a monthly charge which is the sum total of the individual monthly charges applicable to all the Scheduling Coordinator's Customers. The individual monthly charges are the applicable rates established for the different type of retail customers that the Scheduling Coordinator represents as shown on Schedule 11.

42.2 Redispatch Charge:

The Scheduling Coordinator shall pay a Load Ratio Share of any redispatch costs allocated between the Scheduling Coordinator and APS pursuant to the protocols in Attachment L. To the extent that APS incurs an obligation to the Scheduling Coordinator for redispatch costs in accordance with the protocols in Attachment L, such amounts will be credited against the Scheduling Coordinator's bill for the applicable month.

42.3 Unreserved Uses:

A Network Customer that engages in an unreserved use of the Transmission System (as specified in paragraphs 834, 839, and 842 of Order No. 890) will be charged for that unreserved use based on the rate for Firm Point-to-Point Transmission Service, and in accordance with the requirements of Schedule 7, Section 1.D (entitled Overrun of Reserved Transmission Capacity) of the Tariff**.**

43 Operating Arrangements

43.1 Operation under The Retail Network Operating Agreement:

The Scheduling Coordinator on behalf of its customers shall plan, construct, operate and maintain its facilities in accordance with Good Utility Practice and in conformance with the Retail Network Operating Agreement, Attachment K of the Tariff.

43.2 Retail Network Operating Agreement:

The terms and conditions under which the Scheduling Coordinator shall schedule the Network Resources of its customers and coordinate the technical and operational matters associated with the implementation of Part IV of the Tariff shall be specified in the Retail Network Operating Agreement. The Retail Network Operating Agreement shall provide for the Parties to (i) operate and maintain equipment necessary for integrating the Scheduling Coordinator's Customers within APS' Transmission System (including, but not limited to, remote terminal units, metering, communications equipment and relaying equipment), (ii) transfer data between APS and the Retail Network Customer (including, but not limited to, heat rates and operational characteristics of Network Resources, generation schedules for units outside APS' Transmission System, interchange schedules, unit outputs for redispatch required under Section 42, voltage schedules, loss factors and other real time data), (iii) use software programs required for data links and constraint dispatching, (iv) exchange data on forecasted loads and resources necessary for long-term planning, and (v) address any other technical and operational considerations required for implementation of Part IV of the Tariff, including scheduling protocols.

The Retail Network Operating Agreement will recognize that the Scheduling Coordinator shall either (i) operate as a Control Area under applicable guidelines of Electric Reliability Organization (ERO) as defined in 18 C.F.R. § 39.1, (ii) satisfy its Control Area requirements, including all necessary Ancillary Services, by contracting with APS, or (iii) satisfy its Control Area requirements, including all necessary Ancillary Services, by contracting with another entity, consistent with Good Utility Practice, which satisfies NERC and WECC requirements. APS shall not unreasonably refuse to accept contractual arrangements with another entity for Ancillary Services. The Retail Network Operating Agreement is included in Attachment K. The operational protocols contained in the Retail Network Operating Agreement shall be consistent with the Protocols contained in Attachment L.

43.3 AZ ISA Operating Committee:

An AZ ISA has been established in order to address operating criteria necessary to accommodate retail direct transmission access in Arizona. The AZ ISA shall be responsible for coordinating the establishment of the operational and administrative protocols needed to accommodate retail access under the Arizona

Corporation Commission Competition Plan. The AZ ISA will have an Operating Committee that will address such issues. Scheduling Coordinators and other interested parties are allowed participation in the Committee. The Committee shall meet from time to time, as need requires, but no less than once each calendar year.

44 Dispute Resolution Procedures

In lieu of the dispute resolution procedures contained in Section 12 of the Tariff, disputes arising under Part IV of the Tariff, which relate to the duties of APS to be performed pursuant to both the Tariff and the AZ ISA's tariff, shall be resolved through the dispute resolution procedures contained in the AZ ISA's tariff.

SCHEDULE 1

Scheduling, System Control, Dispatch Service, and EIM Administrative Services

This service is required to schedule the movement of power through, out of, within, or into a Control Area. This service can be provided only by the operator of the Control Area in which the transmission facilities used for transmission service are located. Scheduling, System Control and Dispatch Service is to be provided directly by APS or indirectly by APS making arrangements with the Control Area operator that performs this service for APS' Transmission System. The Transmission Customer must purchase this service from APS or the Control Area operator. The charges for Scheduling, System Control and Dispatch Service are to be based on the rates set forth below. To the extent the Control Area operator performs this service for APS, charges to the Transmission Customer are to reflect only a pass-through of the costs charged to APS by that Control Area operator. This Schedule also includes a pass-through of the MO Administration costs assigned to the APS EIM Entity Scheduling Coordinator in accordance with Sections 4.5.1.1.4, 4.5.1.3, 11.22.8, and 29.11(i) of the MO Tariff, detailed below.

For customers taking service under Parts II and III of the Tariff:

Maximum Scheduling, System Control and Dispatch Service Charges:

1) Annual Rate	$0.283/kW/yr.
2) Monthly Rate	$0.024/kW/mo.
3) Weekly Rate	$0.005/kW/wk.
4) Daily delivery:	
a) Monday through Saturday, excluding NERC recognized holidays	$0.001/kW/day
b) Sunday and all NERC recognized holidays	$0.001/kW/day
5) Hourly Rates:	
On-Peak	$0.058/MWh
Off-Peak	$0.032/MWh

The total demand charge in any week, pursuant to a reservation for Daily delivery, shall not exceed the rate specified in section (3) above times the highest amount in kilowatts of Reserved Capacity in any day during such week.

EIM Administrative Service:

EIM Administrative Service recovers the administrative costs assessed by the CAISO as the MO of the EIM to the APS EIM Entity in accordance with Sections 4.5.1.1.4, 4.5.1.3, 11.22.8, and 29.11(i) of the MO Tariff (EIM Administrative Costs). All Transmission Customers purchasing Point-to-Point Transmission Service or Network Integration Transmission Service from the Transmission Provider shall be required to acquire EIM Administrative Service from the Transmission Provider.

EIM Administrative Costs assigned to the APS EIM Entity shall be sub-allocated to Transmission Customers on the basis of Measured Demand for the month in which the EIM Administrative Costs were incurred.

For any additional services that the Transmission Customer elects to receive directly from the MO, any costs associated with those services will be allocated to the Transmission Customer by APS.

SCHEDULE 2

Reactive Supply and Voltage Control from Generation or Other Sources Service

In order to maintain transmission voltages on APS' transmission facilities within acceptable limits, generation facilities and non-generation resources capable of providing this service that are under the control of the control area operator are operated to produce (or absorb) reactive power. Thus, Reactive Supply and Voltage Control from Generation or Other Sources Service must be provided for each transaction on APS' transmission facilities. The amount of Reactive Supply and Voltage Control from Generation or Other Sources Service that must be supplied with respect to the Transmission Customer's transaction will be determined based on the reactive power support necessary to maintain transmission voltages within limits that are generally accepted in the region and consistently adhered to by APS.

Reactive Supply and Voltage Control from Generation or Other Sources Service is to be provided directly by APS. The Transmission Customer must purchase this service from APS. The charges for such service will be based on the rates set forth below.

This service will be provided at no charge until APS has developed a rate that has been filed with the Commission and allowed to be implemented; however, Transmission Customers taking service at transmission voltage levels shall be responsible for maintaining a power factor of ± 95.0%, and Transmission Customers taking service at distribution voltage levels shall maintain a power factor of not less than 90% lagging but in no event leading, unless agreed to by APS.

1.0 Penalties for Non-Compliance:

1.1 Transmission Customers found to be in non-compliance with APS' power factor requirement, upon receipt of an initial warning notice, shall be required to install all necessary equipment at their facilities within 45 days to cure any problem(s) so that the Transmission Customer’s power factor meets APS' standards. The Transmission Customer shall be responsible for the cost of all necessary equipment needed to maintain the required power factor standard.

1.2 If, at the conclusion of the 45-day period allowed for correction of power factor performance after issuance of the initial warning notice, the Transmission Customer’s power factor is still not within accepted standards, APS shall install all necessary equipment to correct the problem at the Transmission Customer’s expense, in which event APS will make a filing with the Commission pursuant to Section 205 of the Federal Power Act concerning such expense before charging the Transmission Customer.

SCHEDULE 3

Regulation and Frequency Response Service

Regulation and Frequency Response Service is necessary to provide for the continuous balancing of resources (generation and interchange) with load and for maintaining scheduled Interconnection frequency at sixty cycles per second (60 Hz). Regulation and Frequency Response Service is accomplished by committing on-line generation whose output is raised or lowered (predominantly through the use of automatic generating control equipment) and by other non-generation resources capable of providing this service as necessary to follow the moment-by-moment changes in load. The obligation to maintain this balance between resources and load lies with APS. APS must offer this service when the transmission service is used to serve load within its Control Area. The Transmission Customer must either purchase this service from APS or make alternative comparable arrangements to satisfy its Regulation and Frequency Response Service obligation. The Transmission Provider will take into account the speed and accuracy of regulation resources in its determination of Regulation and Frequency Response reserve requirements, including as it reviews whether a self-supplying Transmission Customer has made alternative comparable arrangements. Upon request by the self-supplying Transmission Customer, the Transmission Provider will share with the Transmission Customer its reasoning and any related data used to make the determination of whether the Transmission Customer has made alternative comparable arrangements. The amount of and charges for Regulation and Frequency Response Service are set forth below. To the extent APS cannot provide part or all of such requested Regulation and Frequency Response Service and must secure such service from a third party in order to fulfill its obligations for such service, charges to the Transmission Customer are to reflect only a pass-through of the costs charged to APS by such third party supplier.

For customers taking service under Parts II and III:

A Transmission Customer purchasing Regulation and Frequency Response Service will be required to purchase an amount of capacity equal to 1.17 percent of the Transmission Customer's monthly coincident peak hourly integrated load within the Transmission Provider's Control area. The billing determinants for this service shall be reduced by any

portion of the 1.17 percent purchase obligation that a Transmission Customer obtains from third parties or supplies itself.

A. Price Cap for Unbundled Regulation and Frequency Response Service of Operating Reserve Service[1]:

Annual Rate		$88.952/kW/yr.
Monthly Rate		$7.413/kW/mo.
Weekly Rate		$1.711/kW/wk.
Daily Rate:		
a) Monday through Saturday, excluding NERC recognized holidays		$0.285/kW/day
b) Sunday and all NERC recognized holidays		$0.244/kW/day
Hourly Rate:	On-Peak	$18.168/MWh
	Off-Peak	$10.154/MWh

B. Price Cap for Unbundled Regulation and Frequency Response Service of Transmission Service[1]:

1) Annual Rate		$1.037/kW/yr.
2) Monthly Rate		$0.086/kW/mo.
Short-Term Service (less than 12 continuous months):	Summer (June-Sep)	Non-Summer (Oct-May)
3) Monthly delivery ($/kW per month)	0.112	0.086
4) Weekly delivery ($/kW per week)	0.026	0.020
5) Daily delivery ($/kW per day)		
a) Monday through Saturday, excluding NERC recognized holidays	0.004	0.003
b) Sunday and all NERC recognized holidays	0.004	0.003
6) Hourly Rate: On-Peak ($/MWh)	0.272	0.212
Off-Peak ($/MWh)	0.153	0.118

The total demand charge in any week, pursuant to a reservation for Daily delivery, shall not exceed the rate specified in section (3) above times the highest amount in kilowatts of Reserved Capacity in any day during such week.

This service is not intended to serve as a back-up or standby source of power to the Transmission Customer in the event of a discontinuance of service from the Transmission Customer's power supplier(s). In the event there is a discontinuance of service by such power supplier(s) of sixty minutes or longer, the Transmission ~~Customer's load (including R~~egulation and Frequency Response Service) shall be

[1] The following charges represent the maximum rate (ceiling rate) that the Transmission Provider may charge for this service. Discounts to the above stated charges shall be allowed and may be offered on a comparable basis in accordance with Section 3 of the Tariff.

curtailed unless alternate arrangements for standby service have been arranged in advance.

SCHEDULE 4

Energy Imbalance Service

Energy Imbalance Service is provided when a difference occurs between the scheduled and the actual delivery of energy to a load located within a Control Area, or deliveries of power and energy out of the Control Area from generation resources located within the Control Area, over a single hour. APS must offer this service when the transmission service is used to serve load within its Control Area. The Transmission Customer must either purchase this service from APS or make alternative comparable arrangements, which may include use of non-generation resources capable of providing this service, to satisfy its Energy Imbalance Service obligation. APS may charge a Transmission Customer a penalty for either hourly energy imbalances under this Schedule or a penalty for hourly generator imbalances under Schedule 10 for imbalances occurring during the same hour, but not both unless the imbalances aggravate rather than offset each other.

APS shall establish charges for energy imbalance service as follows:

> A Transmission Customer shall be charged or paid for Energy Imbalance Service measured as the deviation of the Transmission Customer's metered load compared to the load component of the Transmission Customer's Base Schedule (as determined pursuant to Section 4.2.4.3 of Attachment Q of this Tariff) settled as UIE for the period of the deviation at the applicable LAP price where the load is located, as determined by the MO under Section 29.11(b)(3)(C) of the MO Tariff.

A spreadsheet showing the sub-hourly LAPs and LMPs of the previous month shall be accessible through the MO's OASIS.

SCHEDULE 5

Operating Reserve - Spinning Reserve Service

Spinning Reserve Service is needed to serve load immediately in the event of a system contingency. Spinning Reserve Service is provided by generating units that are on-line and loaded at less than maximum output and by non-generation resources capable of providing this service. APS must offer this service when the transmission service is used to serve load within its Control Area. The Transmission Customer must either purchase this service from APS or make alternative comparable arrangements to satisfy its Spinning Reserve Service obligation. The amount of and charges for Spinning Reserve Service are set forth below. To the extent the Control Area operator performs this service for APS, charges to the Transmission Customer are to reflect only a pass-through of the costs charged to APS by that Control Area operator.

A Transmission Customer purchasing Operating Reserve - Spinning Reserve Service will be required to purchase an amount of capacity equal to 1.5 percent of the Transmission Customer's monthly coincident peak hourly integrated load within the Transmission Provider's Control Area. Transmission Customers with generating resources located within the APS Control Area, or generation which APS has agreed to provide Contingency Reserve responsibility through dynamic signal, will also be required to purchase an amount equal to 1.5 percent of the capacity of the specified generating resource identified as the "source" in the Transmission Customer's transmission schedule. This additional purchase will be required unless another Control Area operator has agreed to carry the Contingency Reserve responsibility, through dynamic signal, for the relevant generation resource. The billing determinants for this service shall be reduced by any portion of the required purchase obligation that a Transmission Customer obtains from third parties or supplies itself.

A. Price Cap for Unbundled Spinning Reserve Service of Operating Reserve Service[1]:

Annual Rate		$75.159/kW/yr.
Monthly Rate		$6.263/kW/mo.
Weekly Rate		$1.445/kW/wk.
Daily Rate:		
a.) Monday through Saturday, excluding NERC recognized holidays		$0.241/kW/day
b.) Sunday and all NERC recognized holidays		$0.206/kW/day
Hourly Rate	On-Peak	$15.351/MWh
	Off-Peak	$8.580/MWh

B. Price Cap for Unbundled Spinning Reserve Service of Transmission Service[2]:*12

Long Term:	Generation	Load	Generation & Load
Annual Rate	$1.12734	$1.12734	$2.25468
Monthly Rate	$0.09394	$0.09394	$0.18789

Short-Term Service (less than 12 continuous months): **Summer: June-September**	Generation	Load	Generation & Load
Monthly delivery ($/kW per month)	$0.12178	$0.12178	$0.24357
Weekly delivery ($/kW per week)	$0.02774	$0.02774	$0.05548
Daily delivery ($/kW per day):			
a) Monday - Saturday, excluding NERC recognized holidays	$0.00470	$0.00470	$0.00940
b) Sunday and all NERC recognized holidays	$0.00376	$0.00376	$0.00752
Hourly Rate:			
On-Peak ($/MWh)	$0.22993	$0.22993	$0.59247
Off-Peak ($/MWh)	$0.16598	$0.16598	$0.33197

Short-Term Service (less than 12 continuous months): **Non-Summer: October - May**	Generation	Load	Generation & Load
Monthly delivery ($/kW per month)	$0.09394	$0.09394	$0.18789
Weekly delivery ($/kW per week)	$0.02162	$0.02162	$0.04324
Daily delivery ($/kW per day):			
a) Monday - Saturday, excluding NERC recognized holidays	$0.00361	$0.00361	$0.00722
b) Sunday and all NERC recognized holidays	$0.00309	$0.00309	$0.00618
Hourly Rate:			
On-Peak ($/MWh)	$0.23026	$0.23026	$0.46052
Off-Peak ($/MWh)	$0.12870	$0.12870	$0.25740

[1] The following charges represent the maximum rate (ceiling rate) that the Transmission Provider may charge for this service. Discounts to the above stated charges shall be allowed and may be offered on a comparable basis in accordance with Section 3 of the Tariff.

[2] The following charges represent the maximum rate (ceiling rate) that the Transmission Provider may charge for this service. Discounts to the above stated charges shall be allowed and may be offered on a comparable basis in accordance with Section 3 of the Tariff.

The total demand charge in any week, pursuant to a reservation for Daily delivery, shall not exceed the rate specified in section (3) above times the highest amount in kilowatts of Reserved Capacity in any day during such week.

This service is not intended to serve as a back-up or standby source of power to the Transmission Customer in the event of a discontinuance of service from the Transmission Customer's power supplier(s). In the event there is a discontinuance of service by such power supplier(s) of sixty minutes or longer, the Transmission Customer's load (including Operating Reserve - Spinning Reserve Service) shall be curtailed unless alternate arrangements for standby service have been arranged in advance.

SCHEDULE 6

Operating Reserve - Supplemental Reserve Service

Supplemental Reserve Service is needed to serve load in the event of a system contingency; however, it is not available immediately to serve load but rather within a short period of time. Supplemental Reserve Service may be provided by generating units that are online but unloaded, by quick-start generation or by interruptible load or other non-generation resources capable of providing this service. APS must offer this service when the transmission service is used to serve load within its Control Area. The Transmission Customer must either purchase this service from APS or make alternative comparable arrangements to satisfy its Supplemental Reserve Service obligation. The amount of and charges for Supplemental Reserve Service are set forth below. To the extent the Control Area operator performs this service for APS, charges to the Transmission Customer are to reflect only a pass-through of the costs charged to APS by that Control Area operator.

A Transmission Customer purchasing Operating Reserve - Supplemental Reserve Service will be required to purchase an amount of capacity equal to 1.5 percent of the Transmission Customer's monthly coincident peak hourly integrated load within the Transmission Provider's Control Area. Transmission Customers with generating resources located within the APS Control Area, or generation which APS has agreed to provide Contingency Reserve responsibility through dynamic signal, will also be required to purchase an amount equal to 1.5 percent of the capacity of the specified generating resource identified as the "source" in the Transmission Customer's transmission schedule. This additional purchase will be required unless another Control Area operator has agreed to carry the Contingency Reserve responsibility, through dynamic signal, for the relevant generation resource. The billing determinants for this service shall be reduced by any portion of the required purchase obligation that a Transmission Customer obtains from third parties or supplies itself.

A. Price Cap for Unbundled Supplemental Reserve Service of Operating Reserve Service[1]:

Annual Rate		$11.581/kW/yr.
Monthly Rate		$0.965/kW/mo.
Weekly Rate		$0.223/kW/wk.
Daily Rate:		
a.) Monday through Saturday, excluding NERC recognized holidays		$0.037/kW/day
b.) Sunday and all NERC recognized holidays		$0.032/kW/day
Hourly Rate	On-Peak	$2.366/MWh
	Off-Peak	$1.322/MWh

B. Price Cap for Unbundled Spinning Reserve Service of Transmission Service[2]:

Long Term:	Generation	Load	Generation & Load
Annual Rate	$0.17370	$0.17370	$0.3474
Monthly Rate	$0.01447	$0.01447	$0.02895

Short-Term Service (less than 12 continuous months): **Summer: June-September**	Generation	Load	Generation & Load
Monthly delivery ($/kW per month)	$0.01889	$0.01889	$0.03778
Weekly delivery ($/kW per week)	$0.00458	$0.00458	$0.00916
Daily delivery ($/kW per day):			
a) Monday - Saturday, excluding NERC recognized holidays	$0.00057	$0.00057	$0.00114
b) Sunday and all NERC recognized holidays	$0.00057	$0.00057	$0.00114
Hourly Rate:			
On-Peak ($/MWh)	$0.04522	$0.04522	$0.09045
Off-Peak ($/MWh)	$0.02576	$0.02576	$0.05152

Short-Term Service (less than 12 continuous months): **Non-Summer: October - May**	Generation	Load	Generation & Load
Monthly delivery ($/kW per month)	$0.01447	$0.01447	$0.02895
Weekly delivery ($/kW per week)	$0.00333	$0.00333	$0.00666
Daily delivery ($/kW per day):			
a) Monday - Saturday, excluding NERC recognized holidays	$0.00055	$0.00055	$0.00111
b) Sunday and all NERC recognized holidays	$0.00048	$0.00048	$0.00096
Hourly Rate:			
On-Peak ($/MWh)	$0.03549	$0.03549	$0.07098
Off-Peak ($/MWh)	$0.01983	$0.01983	$0.03966

[1] The following charges represent the maximum rate (ceiling rate) that the Transmission Provider may charge for this service. Discounts to the above stated charges shall be allowed and may be offered on a comparable basis in accordance with Section 3 of the Tariff.

[2] The following charges represent the maximum rate (ceiling rate) that the Transmission Provider may charge for this service. Discounts to the above stated charges shall be allowed and may be offered on a comparable basis in accordance with Section 3 of the Tariff.

The total demand charge in any week, pursuant to a reservation for Daily deliver, shall not exceed the rate specified in section (3) above times the highest amount in kilowatts of Reserved Capacity in any day during such week.

This service is not intended to serve as a back-up or standby source of power to the Transmission Customer in the event of a discontinuance of service from the Transmission Customer's power supplier(s). In the event there is a discontinuance of service by such power supplier(s) of sixty minutes or longer, the Transmission Customer's load (including Operating Reserve - Supplemental Reserves Service) shall be curtailed unless alternate arrangements for standby service have been arranged in advance.

SCHEDULE 7

Long-Term Firm and Short-Term Firm Point-To-Point Transmission Service

See annual Formula Rate Information posted on APS' website:

I. Each month, APS shall bill the Transmission Customer for Firm Transmission Service and the Transmission Customer shall be obligated to pay APS the charges as set forth in this schedule, as applicable.

The total demand charge in any week, pursuant to a reservation for Daily delivery, shall not exceed the rate specified in sections (B1b and B2b) below times the highest amount in kilowatts of Reserved Capacity in any day during such week.

The total demand charge in any day, pursuant to a reservation for Hourly delivery, shall not exceed the rate specified in sections (B1c and B2c) below times the highest amount in kilowatts of Reserved Capacity in any hour during such day.

A. <u>Transmission Charge – Long-Term Firm Point-to-Point Service</u> (12 continuous months or longer):

1. **Yearly Delivery:**

   The demand charge indentified in Attachment H – 1, line 157of APS' Formula Rate multiplied by the Reserved Capacity per year.

2. **Monthly Delivery:**

   The amount identified in Attachment H – 1, line 157 of APS' Formula Rate, divided by twelve (12), multiplied by the Reserved Capacity per month.

B. <u>Transmission Charge – Short-Term Firm Point-to Service</u> (less than 12 continuous months)

For all Short-Term Firm Point-to-Point Service requests, there will be a separate charge for Non-Summer (October-May) and Summer (June-September) periods.

1. <u>Non-Summer Months (October through May):</u>

a. Non-Summer Monthly Delivery:

The amount identified in Attachment H – 1, line 157 of APS' Formula Rate, divided by twelve (12) multiplied by the Reserved Capacity per month.

b. Non-Summer Weekly Delivery:

The amount identified in Attachment H – 1, line 157 of APS' Formula Rate, divided by fifty-two (52) multiplied by the Reserved Capacity per week.

c. Non-Summer Daily Delivery:

i. For service on Monday through Saturday, excluding NERC defined holidays, the Transmission Charge shall be the amount identified in Attachment H – 1, line 157 of APS' Formula Rate, divided by 306 (i.e., the number of on-peak days in a year less NERC defined holidays) multiplied by the Reserved Capacity per day.

ii. For service on Sunday and NERC defined holidays, the Transmission Charge shall be the amount identified in Attachment H – 1, line 157 of APS' Formula Rate divided by 365 and multiplied by the Reserved Capacity per day.

d. Non-Summer Hourly Delivery:

i. For service during on-peak hours from Monday through Saturday, excluding NERC defined holidays, the amount identified in Attachment H – 1, line 157 of APS' Formula Rate, divided by 4896 (i.e., the number of on-peak hours in a year, less NERC defined holidays) multiplied by the Reserved Capacity per hour.

ii. For service during off-peak hours, Sundays, and NERC defined holidays, the Transmission Charge shall be the amount identified in Attachment H – 1, line 157 of APS' Formula Rate, divided by 8760 multiplied by the Reserved Capacity per hour.

2. Summer Months (June through September):

a. Summer Monthly Delivery:

The amount identified in Attachment H – 1, line 161 of APS' Formula Rate, divided by twelve (12) multiplied by the Reserved Capacity per month.

b. Summer Weekly Delivery:

The amount identified in Attachment H – 1, line 161 of APS' Formula Rate, divided by fifty-two (52) multiplied by the Reserved Capacity per week.

c. Summer Daily Delivery:

i. For service on Monday through Saturday, excluding NERC defined holidays, the Transmission Charge shall be the amount identified in Attachment H – 1, line 161 of APS' Formula Rate, divided by 306 (i.e., the number of on-peak days in a year less NERC defined holidays) multiplied by the Reserved Capacity per day.

ii. For service on Sunday and NERC defined holiday's, the Transmission Charge shall be the amount identified in Attachment H – 1, line 161 of APS' Formula Rate divided by 365 and multiplied by the Reserved Capacity per day.

d. Summer Hourly Delivery Rate

i. For service during on-peak hours from Monday through Saturday, excluding NERC defined holidays, the amount identified in Attachment H – 1, line 161 of APS' Formula Rate, divided by 4896 (i.e., the number of on-peak in

i. a year less NERC defined holidays) multiplied by the Reserved Capacity per hour.

ii. For service during off-peak hours, Sundays, and NERC defined holidays, the Transmission Charge shall be the amount identified in Attachment H – 1, line 161 of APS' Formula Rate, divided by 8760 multiplied by the of Reserved Capacity per hour.

C. Discounts:

Three principal requirements apply to discounts for transmission service as follows: (1) any offer of a discount made by APS must be announced to all Eligible Customers solely by posting on the OASIS, (2) any customer-initiated requests for discounts (including requests for use by one's wholesale merchant or an affiliate's use) must occur solely by posting on the OASIS, and (3) once a discount is negotiated, details must be immediately posted on the OASIS.

For any discount agreed upon for service on a path, from point(s) of receipt to point(s) of delivery, APS must offer the same discounted transmission service rate for the same time period to all Eligible Customers on all unconstrained transmission paths that go to the same point(s) of delivery on the Transmission System.

D. Overrun of Reserved Transmission Capacity:

APS will assess a charge for unauthorized use of transmission service at a rate equal to two (2) times the maximum allowable rate for the service at issue. The charge will be applied to use in excess of the reservation amount ("the overrun"), which shall be the difference between the maximum integrated hourly amount of transmission service actually used by the customer less the amount of transmission service the customer has reserved for such hour. The transmission customer will incur the charge for maximum hourly overrun during the calendar month, or for the period of transmission service if such service is for a term of less than one month.

These charges are intended to serve as a disincentive to Transmission Customers "overrunning" their reserved capacity amounts on the transmission system.

SCHEDULE 8

Non-Firm Point-To-Point Transmission Service

I. Each month, APS shall bill the Transmission Customer for Non-Firm Transmission Service and the Transmission Customer shall be obligated to pay APS the charges as set forth in this schedule, as applicable.

The total demand charge in any day, pursuant to a reservation for Hourly delivery, shall not exceed the rate specified in section (A3) below times the highest amount in kilowatts of Reserved Capacity in any hour during such day. In addition, the total demand charge in any given week, pursuant to a reservation for Hourly or Daily delivery, shall not exceed the rate specified in section (A2) below times the highest amount in kilowatts of Reserved Capacity in any hour during such week.

A. Transmission Charge

1. Monthly Delivery:

The amount identified in Attachment H – 1, line 157 of APS' Formula Rate divided by twelve (12) multiplied by the Reserved Capacity per month.

2. Weekly Delivery:

The amount identified in Attachment H – 1, line 157 of APS' Formula Rate divided by fifty-two (52) multiplied by the Reserved Capacity per week.

3. Daily Delivery:

a. For service on Monday through Saturday, excluding NERC defined holidays, the Transmission Charge shall be the amount identified in Attachment H – 1, line 157 of APS' Formula Rate divided by 306 (i.e., the number of on-peak days in a year, less

b. NERC defined holidays) multiplied by the Reserved Capacity per day.

c. For service on Sunday and NERC defined holiday's, the Transmission Charge shall be the amount identified in

Attachment H – 1, line 157 of APS' Formula Rate divided by 365 multiplied by the Reserved Capacity per day.

4. Hourly Delivery:

a. For service during on-peak hours from Monday through Saturday, excluding NERC defined holidays, the amount identified in Attachment H – 1, line 157 of APS' Formula Rate divided by 4896 (i.e., the number of on-peak days in a year, less NERC defined holidays) multiplied by the Reserved Capacity per hour.

b. For service during off-peak hours, Sundays, and NERC defined holidays, the Transmission Charge shall be the amount identified in Attachment H – 1, line 157 of APS' Formula Rate divided by 8760 multiplied by the Reserved Capacity per hour.

5. Discounts:

Three principal requirements apply to discounts for transmission service as follows: (1) any offer of a discount made by APS must be announced to all Eligible Customers solely by posting on the OASIS, (2) any customer-initiated requests for discounts (including requests for use by one's wholesale merchant or an affiliate's use) must occur solely by posting on the OASIS, and (3) once a discount is negotiated, details must be immediately posted on the OASIS.

For any discount agreed upon for service on a path, from point(s) of receipt to point(s) of delivery, APS must offer the same discounted transmission service rate for the same time period to all Eligible Customers on all unconstrained transmission paths that go to the same point(s) of delivery on the Transmission System.

6. Overrun of Reserved Transmission Capacity:

APS will assess a charge for unauthorized use of transmission service at a rate equal to two (2) times the maximum allowable rate for the service at issue. The charge will be applied to use in excess of the reservation amount ("the overrun"), which shall be the difference between the maximum integrated hourly amount of transmission service actually used by the customer less the amount of transmission service the customer has reserved for such hour. The transmission customer will incur the charge for maximum

hourly overrun during the calendar month, or for the period of transmission service if such service is for a term of less than one month.

SCHEDULE 9

Local Distribution Facilities Wheeling Service

Eligible Customers taking Transmission Service under Parts II and III of this Tariff may require APS to transmit their third-party power and energy over facilities that are not part of APS' integrated bulk transmission system. Use of such facilities will subject the Transmission Customer to an additional monthly charge based on the direct assignment of the Local Distribution Facilities utilized in performing the requested service. This direct assignment charge will be developed based upon the results of any required Facilities Study or System Impact Study, and will be stated in the Transmission Customer's applicable service agreement.

SCHEDULE 10

Generator Imbalance Service

Generator Imbalance Service is provided when a difference occurs between the output of an APS EIM Non-Participating Resource, located in the Transmission Provider's Control Area, as reflected in the resource component of the Transmission Customer Base Schedule, and the delivery schedule from that generator to (1) another Control Area or (2) a load within the Transmission Provider's Control Area over a single hour. The Transmission Provider must offer this service, to the extent it is physically feasible to do so from its resources or from resources available to it, when Transmission Service is used to deliver energy from a generator located within its Control Area. The Transmission Customer must either purchase this service from the Transmission Provider or make alternative comparable arrangements, which may include use of non-generation resources capable of providing this service, to satisfy its Generator Imbalance Service obligation. The Transmission Provider may charge a Transmission Customer a penalty for either hourly generator imbalances under this Schedule or a penalty for hourly energy imbalances under Schedule 4 for imbalances occurring during the same hour, but not both unless the imbalances aggravate rather than offset each other.

The Transmission Provider shall establish charges for Generator Imbalance Service as follows (the following provisions do not apply to Transmission Customers which have received a Manual Dispatch, or EIM Available Capacity Dispatch or which have communicated physical changes in the output of resources to the MO):

1. A Transmission Customer shall be charged or paid for Generator Imbalance Service measured as the deviation of the Transmission Customer's metered generation compared to the resource component of the Transmission Customer Base Schedule settled as UIE for the period of the deviation at the applicable PNode RTD price where the generator is located, as determined by the MO under Section 29.11(b)(3)(B) of the MO Tariff.

The following provisions shall apply to Transmission Customers which have received a Manual Dispatch, an EIM Available Capacity Dispatch or which have communicated physical changes in the output of resources to the MO:

1. A Transmission Customer shall be charged or paid for Generator Imbalance Service measured as the deviation of the Transmission Customer's metered generation compared to the Manual Dispatch amount, the EIM Available Capacity Dispatch amount or physical changes in the output of resources incorporated by the MO in the FMM, settled as UIE for the period of the deviation at the applicable PNode RTD price where the generator is located, as determined by the MO under Section 29.11(b)(3)(B) of the MO Tariff; and
2. a. A Transmission Customer shall be charged or paid for Generator Imbalance Service measured as the deviation of the Manual Dispatch amount, the EIM Available Capacity Dispatch amount or physical changes in the output of resources incorporated by the MO in the FMM, compared to the resource component of the Transmission Customer Base Schedule, settled as IIE for the period of the deviation at the applicable PNode FMM price where the generator is located, as determined by the MO under Section 29.11(b)(1)(A)(ii) of the MO Tariff; or

   b. Generator Imbalance Service measured as the deviation of the Manual Dispatch amount, the EIM Available Capacity Dispatch amount or physical changes in the output of resources incorporated by the MO in RTD, compared to the FMM schedule, settled as IIE for the period of the deviation at the applicable PNode RTD price where the generator is located, as determined by the MO under Section 29.11(b)(2)(A)(ii) of the MO Tariff.

A spreadsheet showing the sub-hourly LMPs of the previous month shall be accessible through the MO's OASIS.

Applicability to Interconnection Customers:

To the extent the Interconnection Customer is a different entity than the Transmission Customer and controls the output of a generator located in the Transmission Provider's

Control Area, the Interconnection Customer may be subject to charges for the Generator Imbalance Service (rather than the Transmission Customer) in accordance with Schedule 10.

Schedule 11

Retail Network Integration Transmission Service And Ancillary Services

Scheduling Coordinators shall pay APS a monthly charge for Retail Network Integration Transmission Service based on the summed total of the individual monthly charges applicable to each of the Scheduling Coordinator's aggregated individual customers. The applicable charges to be assessed to a Scheduling Coordinator's individual retail customers are set forth below:

For Transmission Service:	
Retail Class	Applicable Charge
1. Residential Class: (DA-R) ($/kWh)	Attachment H - 1, line 162
2. General Service 0 - 20 kW ($/kWh)	Attachment H - 1, line 163
3. General Service > 20 kW and <3000 kW: (DA-GS) ($/kW)	Attachment H - 1, line 164
4. Large General Service >3000 kW: (DA-XLGS) ($/kW)	Attachment H - 1, line 165

For Ancillary Services:	
Scheduling, System Control & Dispatch Service	Applicable Charge
1. Residential Class: (DA-R)	$0.000069/kWh
2. General Service 0 - 20 kW	$0.000056/kWh
3. General Service > 20 kW and <3000 kW: (DA-GS)	$0.0208/kW
4. Large General Service >3000 kW: (DA-XLGS)	$0.0236/kW

Regulation & Frequency Response Service	Applicable Charge
1. Residential Class: (DA-R)	$0.000267/kWh
2. General Service 0 - 20 kW	$0.000217/kWh
3. General Service > 20 kW and <3000 kW: (DA-GS)	$0.0813/kW
4. Large General Service >3000 kW: (DA-XLGS)	$0.0919/kW

Operating Reserve - Spinning Reserve Service	Applicable Charge
1. Residential Class: (DA-R)	$0.000618/kWh
2. General Service 0 - 20 kW	$0.000502/kWh
3. General Service > 20 kW and <3000 kW: (DA-GS)	$0.1879/kW
4. Large General Service >3000 kW: (DA-XLGS)	$0.2124/kW

	Operating Reserve-Supplemental Reserve Service	Applicable Charge
1.	Residential Class: (DA-R)	$0.000078/kWh
2.	General Service 0 - 20 kW	$0.000064/kWh
3.	General Service > 20 kW and <3000 kW: (DA-GS)	$0.0238/kW
4.	Large General Service >3000 kW: (DA-XLGS)	$0.0269/kW

For purposes of determining a Scheduling Coordinator's monthly charges for Retail Network Integration Transmission Service, the kWh energy or the kW demand shall be based upon the aggregated metered values for each retail customer's monthly billing cycle served by the Scheduling Coordinator. The Scheduling Coordinator's kW shall be based on the sum of the average kW supplied during the 15-minute period of maximum kW use by each retail customer with a $/kW demand charge served by the Scheduling Coordinator during the retail customer's monthly billing cycle. The DA-GS and DA-XLGS customer classes shall include non-residential customers that are served on a retail rate schedule that contains a monthly demand (kW) charge for services such as generation or distribution, in addition to the kW charge for transmission related services. The General Service 0-20 kW class shall include non-residential customers that are served on a retail rate schedule that does not contain monthly demand (kW) charges.

Plus, APS shall assess the Scheduling Coordinator the applicable proportionate part of all sales, uses, excise, and any other similar taxes existing as of the date of this document and thereafter enacted, imposed or levied by any state, county, city, tribal, or any governmental agency solely on the sale or transfer of electric energy or service, unless the Scheduling Coordinator provides to APS a valid Exemption Certificate for the State of Arizona for all applicable municipalities.

SCHEDULE 12

Real Power Losses

The Transmission Customer taking Network Integration Transmission Service, Firm Point-to-Point, or Non-Firm Point-to-Point Transmission Service, excluding Energy Imbalance Service and Generator Imbalance Service, shall reimburse the Transmission Provider for Real Power Losses as provided in Sections 15.7, 28.5 and 36.5 of this Tariff. The Transmission Customer must financially settle for Real Power Losses by reimbursement as specified herein.

Settlement of Real Power Losses associated with Energy Imbalance Service shall be pursuant to Schedule 4 of this Tariff, and settlement of Real Power Losses associated with Generator Imbalance Service shall be pursuant to Schedule 10 of this Tariff. The procedures to determine the amount of Real Power Losses associated with a Transmission Customer's Base Schedule, as well as the reimbursement for Real Power Losses are set forth below.

The Transmission Customer shall compensate the Transmission Provider at a rate equal to the amount of Real Power Losses assessed to such Transmission Customer in a given hour multiplied by the hourly LAP price for the APS BAA in that hour as established by the MO under section 29.11 (b)(3)(C) of the MO Tariff. A spreadsheet showing the LAP prices for each hour of the previous month shall be accessible through the MO's OASIS.

Contract No.:_____

ATTACHMENT A

Form Of Service Agreement For Firm Point-To-Point Transmission Service

1.0 This Service Agreement, dated as of _____, is entered into, by and between Arizona Public Service Company ("APS" or "the Transmission Provider"), and _____("Transmission Customer").

2.0 The Transmission Customer has been determined by APS to have a Completed Application for Firm Point-To-Point Transmission Service under the Tariff.

If the Transmission Customer requests "umbrella" type service, this Service Agreement provides an "umbrella" agreement for short-term firm point-to-point transmission service in accordance with provisions in Part II of APS' Open Access Transmission Tariff.

Requests for specific short-term firm transmission service shall be evaluated on an individual basis upon the Transmission Customer providing APS the information regarding each requested transaction as set forth in Sections 18.2.1 and 18.2.3 - 18.2.7 (inclusive) of the Transmission Tariff. Requests for specific Firm Point-to-Point Transmission Service transactions must be submitted on the Transmission Provider's OASIS.

3.0 Service under this agreement shall commence on the later of (l) the requested service commencement date, or (2) the date on which construction of any Direct Assignment Facilities and/or Network Upgrades are completed, or (3) such other date as it is permitted to become effective by the Commission. With respect to requests for blanket authorization for Short-Term Firm Point-to-Point Transmission Service, the term of this agreement shall be three (3) years from the date referenced in Section 1.0, at which time Transmission Customer must provide notice to Transmission Provider that Transmission Customer would like to renew this agreement for an additional three (3) year term. With respect to Long-Term Firm Point-to-Point Transmission Service, the term of this agreement shall be mutually agreed to between the parties and included in the Specifications sheet attached hereto. Notwithstanding the foregoing, service under this agreement shall terminate on such date as mutually agreed upon by the parties.

4.0 APS agrees to provide and the Transmission Customer agrees to take and pay for Firm Point-To-Point Transmission Service in accordance with the provisions of Part II of the Tariff and this Service Agreement.

5.0 Any notice or request made to or by either Party regarding this Service Agreement shall be made to the representative of the other Party as indicated below.

Contract No.:_____

Transmission Provider:

Mailing Address:
Arizona Public Service Company
P.O. Box 53933, Station 3262
Phoenix, Arizona 85072-3933

Overnight Mail:
Arizona Public Service Company
2121 W. Cheryl Drive, MS 3262
Phoenix, Arizona 85021

Transmission Customer:

_____

_____

_____

6.0 The Tariff is incorporated herein and made a part hereof, including, without limitation, the specific Point-to-Point Transmission Service Products offered by Transmission Provider and identified in Attachment M.

Contract No.:_____

IN WITNESS WHEREOF, the Parties have caused this Service Agreement to be executed by their respective authorized officials.

Transmission Provider:

Signature: _____

Name: _____

Title: _____

Date: _____

Transmission Customer:

Signature: _____

Name: _____

Title: _____

Date: _____

Contract No.:_____

Specifications For Long-Term Firm Point-To-Point
Transmission Service

l.0 Term of Transaction: _____

Start Date: _____

Termination Date: _____

2.0 Description of capacity and energy to be transmitted by Transmission Provider including the electric Control Area in which the transaction originates. (Attach additional sheets, if necessary.)

_____

3.0 Point(s) of Receipt:_____

Delivering Party:_____

4.0 Point(s) of Delivery:_____

Receiving Party:_____

5.0 Maximum amount of capacity and energy to be transmitted (Reserved Capacity):

_____

6.0 Designation of party(ies) subject to reciprocal service obligation:

_____
_____
_____

7.0 Name(s) of any Intervening Systems providing transmission service:

_____
_____
_____

8.0 Service under this Agreement may be subject to some combination of the charges detailed below. (The appropriate charges for individual transactions will be determined in accordance with the terms and conditions of the Tariff.)

8.1 Transmission Charge:

_____

_____

8.2 System Impact and/or Facilities Study Charge(s):

_____

_____

8.3 Direct Assignment Facilities Charges:

8.3.1 Local Distribution Facilities Wheeling Charge: _____

8.3.2 _____

8.3.3 _____

8.3.4 _____

8.3.5 _____

8.4 Ancillary Services Charges:

8.4.1 Scheduling, System Control and Dispatch Services: As per Schedule 1

8.4.2 Reactive Supply and Voltage Control from Generation: As Per Schedule 2

8.4.3 Regulation and Frequency Response Service: As per Schedule 3

8.4.4 Energy Imbalance Services: As per Schedule 4

8.4.5 Operating Reserve - Spinning Reserve Service: As per Schedule 5

8.4.6 Operating Reserve - Supplemental Reserve Service: As per Schedule 6

8.4.7 Generator Imbalance Service: As per Schedule 10

8.5 Other Services:

8.5.1 Local Distribution Facilities Wheeling Service: See 8.3.1 above

Contract No.: _____

ATTACHMENT A-1

Form of Service Agreement For
The Resale, Reassignment Or Transfer Of
Firm Point-To-Point Transmission Service

1.0 This Service Agreement, dated as of _____, is entered into, by and between _____("the Transmission Provider"), and _____ ("the Assignee"),

2.0 The Assignee has been determined by the Transmission Provider to be an Eligible Customer under the Tariff pursuant to which the transmission service rights to be transferred were originally obtained.

3.0 The terms and conditions for the transaction entered into under this Service Agreement shall be subject to the terms and conditions of Part II of the Transmission Provider's Tariff, except for those terms and conditions negotiated by the Reseller, of the reassigned transmission capacity (pursuant to Section 23.1 of this Tariff) and the Assignee to include: contract effective and termination dates, the amount of reassigned capacity or energy, point(s) of receipt and delivery. Changes by the Assignee to the Reseller's Points of Receipt and Points of Delivery will be subject to the provisions of Section 23.2 of this Tariff.

4.0 The Transmission Provider shall credit the Reseller for the price reflected in the Assignee's Service Agreement or the associated OASIS schedule.

5.0 With respect to requests for blanket authorization for Short-Term Firm Point-to-Point Transmission Service, the term of this agreement shall be three (3) years from the date referenced in Section 1.0, at which time Transmission Customer must provide notice to Transmission Provider that Transmission Customer would like to renew this agreement for an additional three (3) year term. With respect to other Firm Point-to-Point Transmission Service, the term of this agreement shall be mutually agreed to between the parties and included in the Specifications sheet attached hereto.

6.0 Any notice or request made to or by either Party regarding this Service Agreement shall be made to the representative of the other Party as indicated below.

Contract No.: _____

Transmission Provider:

_____

_____

Assignee:

_____

_____

_____

7.0 The Tariff is incorporated herein and made a part hereof, including, without limitation, the specific Point-to-Point Transmission Service Products offered by Transmission Provider and identified in Attachment M.

IN WITNESS WHEREOF, the Parties have caused this Service Agreement to be executed by their respective authorized officials.

Transmission Provider:

By:_____ _____ _____
Name Title Date

Assignee:

By:_____ _____ _____
Name Title Date

Contract No.: _____

Specifications For The Resale, Reassignment Or Transfer of
Long-Term Firm Point-To-Point Transmission Service

1.0 Term of Transaction: _____

Start Date: _____

Termination Date: _____

2.0 Description of capacity and energy to be transmitted by Transmission Provider including the electric Control Area in which the transaction originates.

_____

3.0 Point(s) of Receipt: _____

Delivering Party: _____

4.0 Point(s) of Delivery: _____

Receiving Party: _____

5.0 Maximum amount of reassigned capacity:

6.0 Designation of party(ies) subject to reciprocal service obligation:

_____
_____
_____
_____

7.0 Name(s) of any Intervening Systems providing transmission service:

_____
_____

Contract No.: _____

8.0 Service under this Agreement may be subject to some combination of the charges detailed below. (The appropriate charges for individual transactions will be determined in accordance with the terms and conditions of the Tariff.)

8.1 Transmission Charge:

_____

8.2 System Impact and/or Facilities Study Charge(s):

_____

_____

8.3 Direct Assignment Facilities Charges:

8.3.1 Local Distribution Facilities Wheeling Charge: _____

_____

_____

_____

8.4 Ancillary Services Charges:

8.4.1 Scheduling, System Control and Dispatch Services: As per Schedule 1

8.4.2 Reactive Supply and Voltage Control from Generation: As Per Schedule 2

8.4.3 Regulation and Frequency Response Service: As per Schedule 3

8.4.4 Energy Imbalance Services: As per Schedule 4

8.4.5 Operating Reserve - Spinning Reserve Service: As per Schedule 5

8.4.6 Operating Reserve - Supplemental Reserve Service: As per Schedule 6

8.4.7 Generator Imbalance Service: As per Schedule 10

8.5 Other Services:

8.5.1 Local Distribution Facilities Wheeling Service: See 8.3.1 above

9.0 Name of Reseller of the reassigned transmission capacity:

_____

Contract No.:_____

ATTACHMENT B

Form Of Service Agreement For Non-Firm Point-To-Point Transmission Service

1.0 This Service Agreement, dated as of _____, is entered into, by and between Arizona Public Service Company ("Transmission Provider"), an Arizona public service corporation, and _____ ("Transmission Customer").

2.0 Transmission Customer has been determined by Transmission Provider to be a Transmission Customer under Part II of the Tariff and has filed a Completed Application for Non-Firm Point-To-Point Transmission Service in accordance with Section 18.2 of the Tariff.

If the Transmission Customer requests "umbrella" type service, this Service Agreement provides an "umbrella" agreement for non-firm point-to-point transmission service in accordance with provisions in Part II of APS' Open Access Transmission Tariff.

Requests for specific non-firm transmission service shall be evaluated on an individual basis upon the Transmission Customer providing APS the information regarding each requested transaction as set forth in Sections 18.2.1 and 18.2.3 - 18.2.7 (inclusive) of the Transmission Tariff. Requests for specific Non-Firm Point-to-Point Transmission Service transactions must be submitted on the Transmission Provider's OASIS.

3.0 Service under this Agreement shall be provided by Transmission Provider upon request by an authorized representative of Transmission Customer.

4.0 Transmission Customer agrees to supply information. Transmission Provider deems reasonably necessary in accordance with Good Utility Practice in order for it to provide the requested service.

5.0 The term of this agreement shall be three (3) years from the date referenced in Section 1.0, at which time Transmission Customer must provide notice to Transmission Provider that Transmission Customer would like to renew this agreement for an additional three (3) year term.

6.0 Transmission Provider agrees to provide and Transmission Customer agrees to take and pay for Non-Firm Point-To-Point Transmission Service in accordance with the provisions of Part II of the Tariff and this Service Agreement.

7.0 Any notice or request made to or by either Party regarding this Service Agreement shall be made to the representative of the other Party as indicated below.

Contract No.:_____

Transmission Provider:

Mailing Address:
Arizona Public Service Company
P.O. Box 53933, Station 3262
Phoenix, Arizona 85072-3933

Overnight Mail:
Arizona Public Service Company
2121 W. Cheryl Drive, MS 3262
Phoenix, Arizona 85021

Transmission Customer:

_____

_____

_____

8.0 The Tariff is incorporated herein and made a part hereof, including, without limitation, the specific Point-to-Point Transmission Service Products offered by Transmission Provider and identified in Attachment M.

Contract No.:_____

IN WITNESS WHEREOF, the Parties have caused this Service Agreement to be executed by their respective authorized officials.

Transmission Provider:

Signature: _____

Name: _____

Title: _____

Date: _____

Transmission Customer:

Signature: _____

Name: _____

Title: _____

Date: _____

Attachment C

Methodology To Assess Available Transfer Capability

(1) A detailed description of the specific mathematical algorithm used to calculate firm and non-firm ATC (and AFC, if applicable) for its scheduling horizon (same day and realtime), operating horizon (day ahead and pre-schedule) and planning horizon (beyond the operating horizon).

APS uses the following NERC Reliability Standard MOD-029 (MOD-29) algorithms in all horizons:

$$ATC_F = TTC - ETC_F - CBM - TRM + Postbacks_F + counterflows_F$$

Where:

ATC_F	is the firm Available Transfer Capability (ATC) for the path for that period.
TTC	is the Total Transfer Capability (TTC) of the path for that period.
ETC_F	is the sum of existing firm commitments for the path during that period.
CBM	is the Capacity Benefit Margin (CBM) for the path during that period.
TRM	is the Transmission Reliability Margin (TRM) for the path during that period.
$Postbacks_F$	are changes to firm ATC due to a change in the use of transmission service for that period, as described in the APS "Postback Methodology" document located on the APS OASIS website.
$counterflows_F$	are adjustments to firm ATC as determined by APS and specified in the APS ATCID.

$$ATC_{NF} = TTC - ETC_F - ETC_{NF} - CBM_S - TRM_U + Postbacks_{NF} + counterflows_{NF}$$

Where:

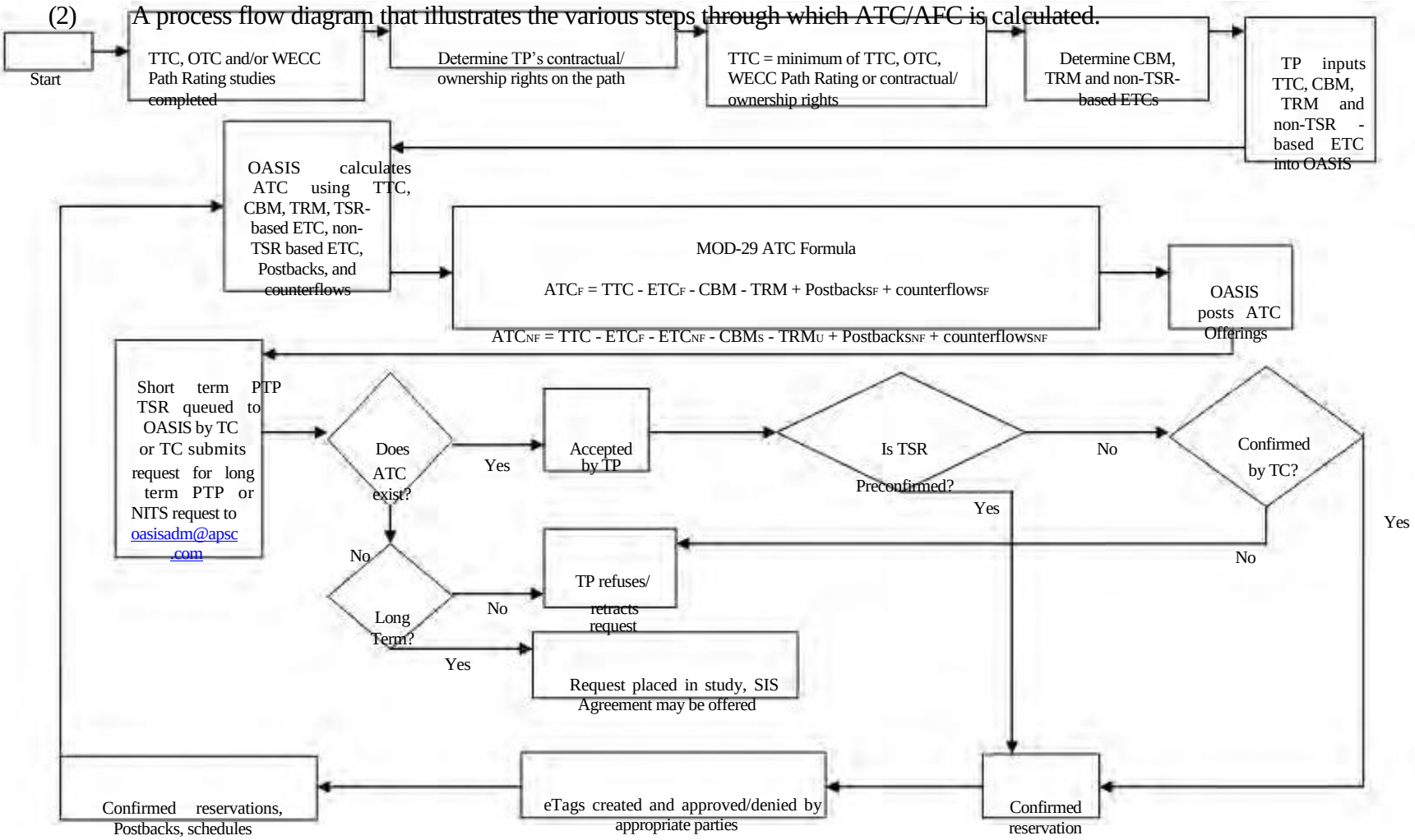
ATC_{NF}	is the non-firm ATC for the path for that period.

TTC	is the TTC of the path for that period.
ETC_F	is the sum of existing firm commitments for the path during that period.
ETC_{NF}	is the sum of existing non-firm commitments for the path during that period.
CBM_S	is the CBM for the path that has been scheduled during that period.
TRM_U	is the TRM for the path that has not been released for sale (unreleased) as non-firm capacity by APS during that period.
$Postbacks_{NF}$	are changes to non-firm ATC due to a change in the use of transmission service for that period, as described in the APS "Postback Methodology" document located on the APS OASIS website.
$counterflows_{NF}$	are adjustments to non-firm ATC as determined by APS and specified in the APS ATCID.

APS ATC algorithms are available in the ATC Business Practice document located on the APS OASIS website:

http://www.oasis.oati.com/AZPS/AZPSdocs/ATC_BP.pdf

(2) A process flow diagram that illustrates the various steps through which ATC/AFC is calculated.



(3) A detailed explanation of how each of the ATC components is calculated for both the operating and planning horizons

a. For TTC, a transmission provider shall:

i. Explain its definition of TTC:

TTC is defined as the amount of electric power that can be moved or transferred reliably from one area to another area of the interconnected transmission systems by way of all transmission lines (or paths) between those areas under specified system conditions.

ii. Explain its TTC calculation methodology:

Paths Included in the WECC Path Rating Catalog

For transmission facilities included in the WECC Path Rating Catalog (Catalog), the determination of TTC begins with the rating contained in the Catalog. The WECC process for determining the ratings contained in the Catalog is consistent with MOD-29. Seasonal Operating Transfer Capability (OTC) studies are completed consistent with the WECC Operating Transfer Capability Policy Committee (OTCPC) Handbook. The study results are reviewed and approved through WECC OTCPC processes. The lower of the OTC or the rating contained in the Catalog is used as the posted TTC for that period unless adjusted for outage.

Paths Not Included in the WECC Path Rating Catalog

Base case generation and load levels are adjusted to simulate flows on a path in determining the TTC. If a reliability limit can be found in simulation, the TTC is set to the simulated flow on the path corresponding to the reliability limit. If no reliability limit is found in the simulation, resulting in a flow limited path[1], the TTC is set equal to the Facility Rating[2]

[1] As described in the March 4, 2011 NERC letter to Transmission Owners and Transmission Service Providers subject to MOD-029-1, a flow limited path is a path studied under MOD-029-1, R2.1 where the simulation cannot sufficiently load the transmission path such that a limit is encountered.

[2] For purposes of this Attachment C, Facility Rating shall be the definition contained in the Glossary of Terms Used in NERC Reliability Standards.

N-1 contingencies are performed for all paths. The Transmission Operator[3] applies engineering judgment to determine if additional contingencies should be evaluated.

If the TTC determination does not result in a reliability limit then the Facility Ratings will be monitored during real-time operations and the Transmission Operator is responsible to address any concerns relating to the System Operating Limit [4]

If the TTC determination does result in a reliability limit then the Transmission Operator shall determine if any simultaneous studies are needed. If simultaneous studies are recommended, the Transmission Operator will use a nomogram during real-time operations to address any simultaneous interaction concerns. The TTC may be set at a value up to the limit of the non-simultaneous result. APS will consider the simultaneous and non-simultaneous ratings when determining what combination of firm and non-firm transmission service will be posted.

All Paths

When transmission facilities are jointly owned, the capacity is allocated between the owners based on the joint ownership or participation agreement; therefore, the TTC of jointly owned facilities are based upon the capacity allocated to APS.

iii. List the databases used in its TTC assessments:

The tools used to determine TTC are the GE PSLF power flow and stability programs using system modeling data obtained through WECC and power flow cases developed by WECC.

iv. Explain the assumptions used in its TTC assessments regarding load levels, generation dispatch, and modeling of planned and contingency outages:

APS uses power flow cases developed by WECC. All WECC power flow cases include the load level and generation levels representing forecasted load and generation for the study period to maximize the transfers for the path under study.

[3] For purposes of this Attachment C, the definition of Transmission Operator shall be the definition contained in the Glossary of Terms Used in NERC Reliability Standards.

[4] For purposes of this Attachment C, the definition of System Operating Limit shall be the definition contained in the Glossary of Terms Used in NERC Reliability Standards.

b. For ETC, a transmission provider shall explain:

i. Its definition of ETC:

Existing Transmission Commitments are defined as committed uses of the APS transmission system considered when determining ATC or AFC.

When calculating firm Existing Transmission Commitments (ETC_F) for a specified period, APS shall use the MOD-29 algorithm:

$$ETC_F = NL_F + NITS_F + GF_F + PTP_F + ROR_F + OS_F$$

Where:

NL_F	is the firm capacity set aside to serve peak Native Load forecast commitments for the time period being calculated, to include losses, and Native Load growth, not otherwise included in TRM or CBM.
$NITS_F$	is the firm capacity reserved for Network Integration Transmission Service and Retail Network Transmission Service serving load, to include losses, and load growth, not otherwise included in TRM or CBM.
GF_F	is the firm capacity set aside for grandfathered transmission service and contracts for energy and/or transmission service, where executed prior to the effective date of the APS OATT.
PTP_F	is the firm capacity reserved for confirmed point-to-point transmission service.
ROR_F	is the firm capacity reserved for rollover rights for contracts granting transmission customers the right of first refusal to take or continue to take transmission service when the transmission customer's transmission service contract expires or is eligible for renewal.
OS_F	is the firm capacity reserved for any other service(s), contract(s), or agreement(s) not specified above using firm transmission service as specified in the APS ATCID.

When calculating non-firm Existing Transmission Commitments (ETC_{NF}) for all time horizons, APS shall use the MOD-29 algorithm:

$$ETC_{NF} = NITS_{NF} + GF_{NF} + PTP_{NF} + OS_{NF}$$

Where:

$NITS_{NF}$ is the non-firm capacity set aside for Network Integration Transmission Service and Retail Network Integration Transmission Service serving load (i.e., secondary service), to include losses, and load growth not otherwise included in TRM or CBM.

GF_{NF} is the non-firm firm capacity set aside for grandfathered transmission service and contracts for energy and/or transmission service, where executed prior to the effective date of the APS OATT.

PTP_{NF} is non-firm capacity reserved for confirmed point-to-point transmission service.

OS_{NF} is the non-firm capacity reserved for any other service(s), contract(s), or agreement(s) not specified above using nonfirm transmission service as specified in the APS ATCID.

ii. The calculation methodology used to determine the transmission capacity to be set aside for native load (including network load) and non-OATT customers (including, if applicable, an explanation of assumptions on the selection of generators that are modeled in service):

Native Load, Network Load and Retail Network Load: APS uses the load and resource forecasts provided by network customers (both Part III and Part IV service) to determine the transmission capacity to be set aside for each network customer.

Non-OATT customers (i.e., grandfathered transmission service):

- Point-to-point type contracts are modeled using the specified megawatt quantity, point of receipt, point of delivery, and contract term.
- Non-Point-to-Point type contracts are modeled to ensure adequate capacity is set aside to meet the contractual terms contained in the agreement.

iii. How point-to-point transmission service requests are incorporated:

Point-to-point type contracts are modeled using the specified megawatt quantity, point of receipt, point of delivery, and contract term.

APS includes the firm or non-firm capacity associated with pending firm and nonfirm transmission service in OS_F and OS_{NF}, as applicable.

iv. How rollover rights are accounted for:

APS takes into consideration an existing transmission customer's rollover rights for its existing long-term transmission service request when assessing whether to confirm a request for long-term firm point-to-point transmission service. APS posts potentially available ATC on OASIS, including capacity associated with the rollover rights, but it does not release transmission associated with such rollover rights until such rollover rights are expired. This approach allows customers viewing APS' posted ATC to consider all potentially available ATC and submit a request to obtain a queue position, should the existing transmission customer allow its rollover rights to expire. An OASIS assignment reference and queue time will be given to these new requestors and the requests will be held in the queue with a received status until the customer with rollover rights either exercises the rollover rights or allows the rollover rights to expire. If the existing customer does exercise their rollover rights, a System Impact Study Agreement may be tendered to the transmission customer with the queued requests. If the existing customer does not exercise their rollover rights, the queued requests are honored up to the amount available based upon their queue order.

v. Its processes for ensuring that non-firm capacity is released properly (e.g., when real time schedules replace the associated transmission service requests in its real-time calculations):

In the operating horizon and scheduling horizon, APS postbacks to non-firm ATC unscheduled capacity.

vi. Describe the step-by-step modeling study methodology and criteria for adding or eliminating flowgates (permanent and temporary):

APS does not currently use a flowgate methodology to calculate ATC.

c. If a Transmission Provider uses an AFC methodology to calculate ATC, it shall: (i) explain its definition of AFC; (ii) explain its AFC calculation methodology; (iii) explain its process for converting AFC into ATC for OASIS posting; (iv) list the databases used in its AFC assessments; and (v) explain the assumptions used in its AFC assessments regarding load levels, generation dispatch, and modeling of planned and contingency outages.

APS does not currently use an AFC methodology to calculate ATC.

d. For TRM, a transmission provide shall explain: (i) its definition of TRM; (ii) its TRM calculation methodology (e.g., its assumptions on load forecast errors,

forecast errors in system topology or distribution factors and loop flow sources); (iii) the databases used in its TRM assessments; (iv) the conditions under which the transmission provider uses TRM. A transmission provider that does not set aside transfer capability for TRM must so state.

APS does not currently set aside TRM.

e. For CBM, the transmission provider shall include a specific and self-contained narrative explanation of its CBM practice, including: (i) an identification of the entity who performs the resource adequacy analysis for CBM determination; (ii) the methodology used to perform the generation reliability assessment (e.g., probabilistic or deterministic); (iii) an explanation of whether the assessment method reflects a specific regional practice; (iv) the assumptions used in this assessment; and (v) the basis for the selection of paths on which CBM is set aside.

APS does not currently set aside CBM.

f. In addition, for CBM, a transmission provider shall: (i) explain its definition of CBM; (ii) list the databases used in CBM calculations; and (iii) demonstrate that there is no double-counting of contingency outages when performing CBM, TTC and TRM calculations.

APS does not currently set aside CBM.

g. The transmission provider shall explain its procedures for allowing the use of CBM during emergencies (with explanation of what constitutes an emergency, entities that are permitted to use CBM during emergencies and the procedures must be followed by the transmission providers' merchant function and other load-serving entities when they need to access CBM). If the transmission provider's practice is not to set aside transfer capability for CBM, it shall so state.

APS does not currently set aside CBM.

ATTACHMENT D

Methodology for Completing a System Impact Study

Upon receipt of a request for service pursuant to the applicable terms and conditions of this Tariff, APS will complete a System Impact Study associated with the requested transmission service. The study procedure will use Good Utility Practice and the engineering and operating principles, standards, guidelines, and criteria of APS, the WECC, NERC, or any similar organization that may exist in the future of which APS is then a member.

APS shall use its sole discretion as to the scope, details and methods used to perform the Study. If necessary, a meeting between APS and applicant shall be held as soon as practical after execution of the System Impact Study Agreement to: (a) review the application and any known issue that could affect the scope of the study; and (b) develop a scope of study. The location of the meeting shall be at APS' offices unless the parties mutually agree to another location.

Factors to be considered in determining the capacity availability on APS' Transmission system will include but not be limited to:

1. Steady state power flow study results;
2. Stability study results;
3. WECC, NERC, and APS' system design criteria;
4. Transmission capacity of the existing system;
5. Transmission capacity of the system after the request is added;
6. Reliability requirements of APS and applicant;
7. Type and terms of the service requested;
8. Capacity needed to meet current and 10-year forecasted load of Native Load Customers and Network Customers' loads; and
9. Capacity needed to meet contractual obligations that are expected before the requested Transmission Service begins.

APS ATTACHMENT E
Transmission Planning Process

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2. Selection by at Least Two but Fewer than All Relevant Regions

Exhibit 1

Exhibit 2

I. Overview of the APS Transmission Planning Process

Arizona Public Service Company (APS) is a vertically integrated public utility engaged in the business of generating, transmitting and distributing electricity in eleven of Arizona's fifteen counties. APS provides electric transmission and related reliability services under state and federal statutes and regulations. APS's transmission planning process is based on the following three core objectives:

- Maintain reliable electric service.
- Improve the efficiency of electric system operations, including the provision of open and non-discriminatory access to the transmission facilities under its control.
- Identify and promote new investments in transmission infrastructure in a coordinated, open, transparent and participatory manner.

APS's transmission planning process is intended to facilitate a timely, coordinated and transparent process --- one that facilitates the development of electric infrastructure in order to maintain reliability and meet load growth so that APS can continue to provide reliable and economic transmission service.

The APS transmission planning process includes a series of open planning meetings that APS will conduct at least twice a year to allow anyone including, but not limited to, network and point-to-point transmission customers, sponsors of transmission solutions, generation solutions and solutions using non-transmission alternatives (NTAs), interconnected neighbors, regulatory and state bodies and other stakeholders input into and participation in all stages of APS's transmission plan development.

In addition to its local transmission planning process, APS coordinates its transmission planning with that of other transmission providers and stakeholders in the desert southwest area, and the Western Interconnection as a whole, through its active participation in the Southwest Area Transmission (SWAT) planning group, membership in WestConnect,[1] membership in the Western Electricity Coordinating Council (WECC) and participation in the WECC Transmission Expansion Planning Policy Committee (TEPPC) and its Technical Advisory Subcommittee (TAS).

[1] WestConnect was formed under a memorandum of understanding (MOU) voluntarily entered into by FERC jurisdictional and non-jurisdictional transmission providing electric utilities in the Western Interconnection. The purposes of WestConnect are to investigate the feasibility of wholesale market enhancements, work cooperatively with other Western Interconnection organizations and market shareholders and address seams issues in the appropriate forums. WestConnect has initiated an effort to facilitate and coordinate regional transmission planning across the WestConnect footprint. Following the effective date of APS's September 20, 2013 Order No. 1000 compliance filing, the WestConnect Order No. 1000 regional transmission planning management committee will commence the regional transmission planning process under the principles set forth in FERC's order *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, FERC Stats. & Regs. ¶ 31,241 (2007), et al. (collectively, "Order No. 890"), and carried forward in FERC's order *Transmission Planning and Cost Allocation by Transmission Owning and Operating Utilities*, Order No. 1000, 136 FERC ¶ 61,051 (2011), et al. (collectively, "Order No. 1000").

Three subregional planning groups operate within the WestConnect footprint: SWAT, Colorado Coordinated Planning Group (CCPG) and the Sierra Subregional Planning Group (SSPG). WestConnect's planning effort, which includes funding and provision of planning management, analysis, report writing and communication services, supports and manages the coordination of the subregional planning groups and their respective studies. Such responsibilities are detailed in the WestConnect Project Agreement for Subregional Transmission Planning (the WestConnect STP Project Agreement), dated May 23, 2007 (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf). APS is a signatory to this Agreement.

The subregional planning groups within the WestConnect footprint, assisted by the WestConnect planning manager, coordinate with other Western Interconnection transmission providers and their subregional planning groups through TEPPC. TEPPC provides for the development and maintenance of an economic transmission study database for the entire Western Interconnection and performs annual congestion studies at the Western Interconnection level.

II. APS Local Transmission Planning

A. APS Planning Process

1. APS and Stakeholder Alternative Solutions Evaluation Basis

APS's local planning process is an objective process that evaluates use of the transmission system on a comparable basis for all customers. All solution alternatives that have been presented on a timely basis (per Section II.A.5 of this Attachment E), including transmission solutions, generation solutions and solutions utilizing NTAs, whether presented by APS or another stakeholder, are evaluated on a comparable basis. The same criteria and evaluation process is applied to competing solutions and/or projects, regardless of type or class of stakeholder. Solution alternatives are evaluated against one another on the basis of the following criteria to select the preferred solution or combination of solutions: (1) ability to fulfill the identified need practically; (2) ability to meet applicable reliability criteria or North American Electric Reliability Corporation (NERC) Planning Standards issues; (3) technical, operational and financial feasibility; (4) operational benefits/constraints or issues; (5) cost-effectiveness over the time frame of the study or the life of the facilities, as appropriate (including adjustments, as necessary, for operational benefits/constraints or issues, including dependability); and (6) where applicable, consistency with state or local integrated resource planning requirements, or regulatory requirements, including cost recovery through regulated rates.

2. Confidential or Proprietary Information

APS's transmission local planning studies may include base case data that are WECC proprietary data or classified as Critical Energy Infrastructure Information (CEII) by the Federal Energy Regulatory Commission (FERC or Commission). A stakeholder must hold membership in or execute a non-disclosure agreement with WECC in order to obtain requested base case data from WECC (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf). A stakeholder may obtain APS transmission information classified as CEII information from APS by following APS's CEII Business Practice which is posted on APS's OASIS website (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf).

3. Types of Planning Studies; Consideration of Public Policy Requirements

a) Transmission Planning Studies. APS will conduct local reliability studies to ensure that all NERC, WECC, and local reliability standards are met for each year of the ten year planning horizon, including all APS customers' requirements for planned loads and resources, including NTAs.

These reliability planning studies will be coordinated with the other subregional transmission providers through the SWAT studies.

b) Economic Planning Studies. Economic planning studies are performed to identify significant and recurring congestion on the transmission system and/or address the integration of new resources and loads. Such studies may analyze any, or all, of the following: (i) the location and magnitude of the congestion, (ii) possible remedies for the elimination of the congestion, in whole or in part, including transmission solutions, generation solutions, and solutions utilizing NTAs, (iii) the associated costs of congestion, (iv) the costs associated with relieving congestion through system enhancements (or other means) and, as appropriate (v) the economic impacts of integrating new resources and loads. APS will perform, or cause to be performed, economic planning studies at the request of any transmission customer or stakeholder. All economic planning studies performed, either by APS or TEPPC, will utilize the TEPPC public database.

c) Consideration of Public Policy Requirements. For purposes of this Attachment E, "Public Policy Requirements" means those requirements enacted by state or federal laws or regulations, including those enacted by local governmental entities, such as a municipality or county. Public Policy Requirements, as applicable, are incorporated into the load forecasts and/or are modeled in the local planning studies. For example, APS incorporates Public Policy Requirements in accordance with Arizona renewable portfolio standards and resource adequacy plans in its transmission planning analysis. Proposed public policy (public policy proposed before a governmental authority but not yet enacted) may be studied if time and resources permit.

4. APS Transmission Local Planning Study Process

a) Overview. APS's local transmission planning process consists of an assessment of the following needs:

(1) Provide adequate transmission to access sufficient resources in order to reliably and economically serve retail and network loads;

(2) Where feasible, identify NTAs, such as demand response resources, that could meet or mitigate the need for transmission additions or upgrades;

(3) Support APS's local transmission and subregional transmission systems;

(4) Provide for interconnection of new generation resources;

(5) Coordinate new interconnections with other transmission systems;

(6) Accommodate requests for long-term transmission access; and

(7) Consider local transmission needs driven by Public Policy Requirements.

b) APS Transmission Local Planning Cycle

(1) Calendar Year Planning Cycle. APS conducts its local transmission planning on a calendar year cycle for a ten year planning horizon.

(2) Annually Updated Ten Year Plan. APS updates its ten year plan annually. APS publishes an annual Ten Year Transmission Plan document, which identifies new 115 kV and above transmission lines and new substations. The Ten Year Plan document is filed at the end of January each year with the Arizona Corporation Commission (ACC).[2]

c) Transmission Customer's Responsibility for Providing Data

(1) Use of Customer Data. APS uses the information provided by its transmission customers to, among other things, assess network load and resource projections (including NTAs), transmission needs, operating dates and retirements for generation resources in APS's system and update regional models used to conduct planning studies.

(2) Submission of Data by Transmission Customers. Transmission customers are required pursuant to the APS Open Access Transmission Tariff (OATT), to submit their ten year projected network load and network resources (including NTAs) to APS on an annual basis. APS requires that network transmission customers submit this information electronically to apstransmission@aps.com by September 1 each year (as required in the APS Operating Agreement under its OATT). All other transmission customers must also submit this information

[2] The ACC's Biennial Transmission Assessment (BTA) process, in coordination with SWAT, evaluates the Arizona transmission providers' filed ten year plans and other study reports on a biennial basis. The BTA allows for and encourages stakeholder review, input and comment on the ACC's assessment of the plans, as published in the ACC's Biennial Transmission Assessment Report.

electronically to apstransmission@aps.com by September 1 each year in order to be included in the local transmission planning process for the transmission plans that APS will submit to the ACC the following January.

(3) Transmission Customer Data to be Submitted. To the maximum extent practicable and consistent with protection of proprietary information, data submitted by network transmission customers and other transmission customers should include for the ten year planning horizon:

(a) Generators - planned additions or upgrades (including status and expected in-service dates), planned retirements and environmental restrictions.

(b) Non-Transmission Alternatives - include, but are not limited to, technologies that defer or possibly eliminate the need for new and/or upgraded transmission lines. Such alternatives are Distributed Generation resources and Demand Side Management (load management), such as Energy Efficiency and Demand Response (e.g., interruptible load) programs, energy storage facilities, and smart grid equipment that can help eliminate (or mitigate) a grid reliability problem, reduce uneconomic grid congestion, and/or help to meet grid needs driven by Public Policy Requirements.

(c) Network Customers - forecast information for load and resource requirements over the planning horizon and identification of demand response reductions.

(d) Point-to-Point Transmission Customers - projections of need for service over the planning horizon, including transmission capacity, duration and receipt and delivery points.

(4) Notification of Material Changes to Customer Data. Each transmission customer is responsible for submitting timely written notice to APS of material changes in any of the information previously provided to APS related to the transmission customer's load, resources (including NTAs) or other aspects of its facilities or operations which may, directly or indirectly, affect APS's ability to provide service.

d) Stakeholder Participation

(1) During its 2nd Quarter public planning meeting, APS will (a) review its current study plan with stakeholders; (b) provide an opportunity for stakeholder input on any aspect of APS's current study plan, including but not limited to, methodology, study inputs, Public Policy Requirements, and potential stakeholder-suggested transmission needs driven by Public Policy Requirements, and study results (including NTAs); (c) review any stakeholder proposals previously submitted to APS for study plan alternatives; (d) invite the submittal of additional stakeholder study plan proposals for review and discussion; and (e) provide updates on APS's planned projects.

After the 2nd Quarter meeting but not less than thirty (30) days before the 4th Quarter meeting, APS will post on its OASIS an explanation of those transmission needs driven by Public Policy Requirements that have been identified for evaluation for potential solutions in the local transmission planning process and an explanation of why any suggested transmission needs driven by Public Policy Requirements will not be evaluated.

(2) During its 4th Quarter public planning meeting, APS will present a draft of its Ten Year Plan for the following calendar year for stakeholder review and comment.

e) Coordination of Transmission Study Cycle with SWAT and WestConnect Study Cycle. APS will coordinate the timing of its local transmission planning study cycle process with the development of the assumptions, coordinated base cases, and power flow cases performed within the SWAT and WestConnect planning group, which is open to participation by all interested parties.

f) APS Point of Contact for Local Reliability Study Requests. APS will identify a Point of Contact on its OASIS to respond to customer/stakeholder questions regarding modeling, criteria, assumptions and data underlying system plans.

g) APS Local Study Criteria and Guidelines. Customers should refer to the APS Transmission Planning Process and Guidelines (APS Planning Guidelines) for APS planning criteria, guidelines, assumptions and data. The APS Planning Guidelines are posted on the APS OASIS (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf).

5. APS Economic Planning Study Process

a) Requesting Economic Planning Studies. Any APS transmission customer or other stakeholder, including sponsors of transmission solutions, generation solutions and solutions using NTAs, (Customer) may submit an economic planning study request for an economic planning study directly to APS, WestConnect, or TEPPC (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf). The Customer must submit its study request(s) no later than October 31 each year if the Customer wants APS to review such request with stakeholders in its 4th Quarter open public planning meeting. All requests must be submitted to APS electronically at apstransmission@aps.com. APS will coordinate the timing of its economic planning study cycle process with the WestConnect TEPPC planning processes.

b) APS Process for Handling Economic Study Requests. APS shall manage any economic planning study requests it receives under this Attachment E in the following manner:

(1) TEPPC Master List. APS shall forward the request to TEPPC for inclusion in the TEPPC Master List of economic planning studies for the Western Interconnection. (*See* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf).

(2) Stakeholder Review of Economic Transmission Study Requests. APS shall review local requests in an APS open public planning meeting. Based on stakeholder input, APS shall determine whether (i) the study request should be classified a local priority request and performed by APS; (ii) whether the study request encompasses a region, in which case APS will transfer the request to WestConnect for consideration as a regional priority request at WestConnect's stakeholder meeting; or (iii) whether the study request encompasses the Western Interconnection, in which case APS will transfer the request to TEPPC for consideration as a Western Interconnection priority request at TEPPC's stakeholder meeting. The criteria WestConnect utilizes to prioritize requests for regional economic studies is described in Section III.E.3, below. The criteria TEPPC utilizes to prioritize requests for Western Interconnection economic studies are posted on the TEPPC page of the WECC website (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf).

(3) Criteria Used to Determine Whether a Transmission Planning Study Request is a Local Study Request. Based in part on the number and type of local study requests received, APS shall consider the following criteria to determine whether the economic transmission planning study request is a local study request:

(a) Whether the study request does not affect interconnected transmission systems; and

(b) The remedies are confined to the APS transmission system and resolved within the APS transmission system.

(4) Criteria Used to Determine Whether a Local Study Request Qualifies as a Local Priority Economic Transmission Planning Study Request. APS shall consider the following criteria to determine whether a local study request qualifies as a local priority economic transmission planning study request:

(a) Which portion(s) of the APS local transmission system shall be under consideration in the study.

(b) Whether the request raises fundamental design issues of interest to multiple parties.

(c) Whether the request raises public policy issues of national, regional or state interest.

(d) Whether the objectives of the study can be met by other existing or planned studies.

(e) Whether the study shall provide information of broad value to customers, regulators, transmission providers and other interested stakeholders.

(f) Whether similar requests for studies or scenarios can be represented generically if the projects are generally electrically equivalent.

(g) Whether requests can be aggregated into energy or load aggregation zones with generic transmission expansion between them.

(h) Whether the study request requires the use of production cost simulation or can it be better addressed through technical studies, *i.e.*, power flow and stability analysis.

(5) Economic Transmission Planning Study Requests Determined to be a Local Priority Request. If APS determines that the study request is a local priority request, APS will conduct the study and coordinate assumptions and results with its customers, stakeholders and interconnected neighbors. APS will have no obligation to conduct and pay for more than three (3) priority local economic planning studies per calendar year. Each study request will be evaluated in the order in which it is received to determine if it meets the criteria for a priority local economic planning study. Additionally, unless studied as a cluster, each approved study request will be studied in the order in which it was received. If APS receives more than three (3) requests for local economic studies that are determined to be priority local requests, in the calendar year, the Customer of a non-conducted priority local economic planning study may request, and APS will provide, APS's assistance in having a third party perform the economic planning study at the Customer's expense. The Customer will have use of the TEPPC economic study data base and APS will support the Customer in coordinating the study as necessary through local, subregional or regional planning groups.

c) Process for Handling Economic Study Requests Received by TEPPC. TEPPC will review economic planning study requests received from either transmission providers or from Customers directly. TEPPC shall review such study requests during its open stakeholder meeting and, together with its stakeholders, prioritize requests for economic transmission planning studies in accordance with TEPPC's Transmission Planning Protocol. APS shall participate in the TEPPC prioritization process and provide input as to whether a study request should be included in the TEPPC study plan. The Customer is also encouraged to participate and provide input in the TEPPC prioritization process. Additionally, WestConnect will provide advice, on an as needed basis, to TEPPC regarding prioritizing regional economic planning study requests and potential clustering of requested regional economic planning studies, if those studies involve facilities in the WestConnect footprint. For more detail regarding the TEPPC economic planning study process, see the TEPPC Transmission Planning Protocol (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf).

d) Low Priority Economic Study Requests. If either APS, WestConnect and/or TEPPC determines, after reviewing, through an open stakeholder process, that the requested economic planning study is not a priority study, the Customer may request APS's assistance in having a

third party perform the economic planning analysis at the Customer's expense. The Requester will have use of the TEPPC economic study data base and APS will support the Requester in coordinating the study through local, subregional or regional planning groups.

e) Clustering Local Priority Economic Studies. APS may determine that any number of Customer's economic planning study requests should be studied together or a Customer may request that APS study its request together with other requests. APS will consider the following criteria to determine whether to cluster priority local economic studies, both on its own volition and in response to a Customer's request:

(1) APS-Proposed Clusters

In the event that APS proposes to cluster certain priority local economic planning studies on any reasonable grounds, including, without limitation, upon its determination that the proposed cluster studies are sufficiently similar from an electrical perspective to be feasibly and meaningfully studied as a group, it shall provide notice to each Customer that it proposes to include in the study. Each Customer shall be provided the opportunity to opt out of the cluster within ten (10) days of notice from APS.

(2) Customer-Proposed Clusters

If a Customer wishes to propose a cluster study, prior to submitting an economic planning study cluster request to APS, the Customer must contact all of the other Customers whose requests it proposes to cluster and obtain their written consent that they are willing to have their request clustered with other identified requests. APS will determine whether, in its reasonable judgment, the local economic planning study requests that the Customer proposes to cluster and for which the other affected Customers have provided consent, are sufficiently similar, from an electrical perspective, to be feasibly and meaningfully studied together. APS reserves the right to reject a Customer-proposed cluster on any reasonable grounds, including, without limitation, APS's determination that the proposed cluster cannot be feasibly studied as a group or that the proposed clustering impairs administration or timely processing of the economic study process. APS will make the determination whether to reject a proposed cluster and provide notice of any decision to reject, within twenty (20) days of receipt of all of the written consents of the Customers that propose to be clustered.

f) Cost Responsibility for Economic Studies

(1) Priority Local Economic Planning Studies. Priority local economic planning studies selected pursuant to Section II.A.5.b.5, including clustered priority local economic planning studies selected pursuant to Section II.A.5.e, will be performed or caused to be performed by APS at APS's expense. APS shall recover the costs of such studies through its transmission rates.

(2) Priority Regional Economic Planning Studies. Regional economic studies performed by TEPPC will be funded by WECC.

(3) Other Local Study Requests. Local economic study requests not selected pursuant to Sections II.A.5.b.5 or II.A.5.e, will be performed at the transmission customer's expense. At the Customer's request, APS may perform the study or work with the transmission customer and its third party contractor.

g) Exchange of Data Unique to Economic Planning Studies.

(1) Data Used for Economic Planning Studies. APS obtains all data used for its economic planning studies from the TEPPC database.

(2) Request for Base Case Data. Customer's request for detailed base case data must be submitted to WECC in accordance with the WECC procedures.

(3) Posting of Requesters' Requests for Economic Planning Studies. Customer's Request for economic planning studies and responses to such requests shall be posted on the APS OASIS (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf) and the WestConnect website (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf), subject to confidentiality requirements.

h) APS Point of Contact for Study Requests. APS will identify a Point of Contact on its OASIS to respond to customer/stakeholder questions regarding modeling, criteria, assumptions, and data underlying economic planning studies.

B. APS Open Public Meetings - Overview

APS will hold at least two open public planning meetings a year, typically in the 2nd quarter and the 4th quarter, in coordination with the SWAT open public transmission planning meetings. This will allow and encourage customers, sponsors of transmission

solutions, generation solutions, NTAs, solutions using demand resources, interconnected neighbors, regulatory and state bodies and other stakeholders to participate in a coordinated, nondiscriminatory process for development of the APS local transmission plan.

1. Purpose and Scope. APS's open public transmission planning meetings will provide an open transparent forum whereby electric transmission stakeholders can comment and provide advice to APS during all stages, including the early stages, of its local transmission planning. These public transmission planning meetings will serve to:

a) Provide a forum for open and transparent communications among Arizona transmission providers, state regulatory authorities, customers, sponsors of transmission solutions, generation solutions, NTAs, solutions using demand resources, and other interested stakeholders.

b) Promote discussion of all aspects of the APS local transmission planning activities, including, but not limited to, methodology, study inputs and study results.

c) Provide a forum for APS to understand better the specific electric transmission interests of key stakeholders.

2. APS Public Local Planning Meeting Process.

a) Open Stakeholder Meetings. All public local planning meetings will be open to all stakeholders.

b) APS Local Planning Meeting Schedule. APS will establish its public local planning meeting schedule as needed, but will hold meetings no less than twice annually.

c) Meeting Purpose: Meetings will be conducted to (i) allow APS to maximize its understanding of its customers' forecast needs for the APS transmission system; (ii) offer customers, sponsors of transmission solutions, generation solutions and solutions using NTAs, and other stakeholders an opportunity to be informed about, and offer input and advice into, the APS transmission system and local planning process, as well as to propose alternatives for any upgrades identified by APS; (iii) review study results; and (iv) review local transmission plans.

d) Coordination with SWAT and/or WestConnect Meetings. APS's local transmission planning process will be coordinated with SWAT through quarterly planning meetings.

e) Posting of Meeting Notices. All meeting notices, including date, time, place and draft meeting agenda, will be posted on the APS OASIS (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf), and the WestConnect website (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf) and circulated to the APS distribution list at least thirty (30) days prior to the APS public local planning meeting.

f) Posting of Study Plans and Planning Results. Local study plans and planning results will be posted on the APS OASIS and WestConnect website at least two (2) weeks prior to the APS public local planning meeting.

g) Meeting Process. At the APS public local planning meetings, APS shall (i) review its local transmission planning process and current local study plan with stakeholders; (ii) request stakeholder review of the current local study plan; (iii) provide an opportunity for comment on any aspect of its local transmission planning process; (iv) invite the submittal of local transmission study requests from stakeholders for review and discussion; (v) review local economic planning study requests; and (vi) provide updates on its planned projects. During the meeting, and for fifteen (15) calendar days following the meeting, all stakeholders and interested parties will be encouraged to submit comments to APS on study results presented in the APS meeting. The final local study results and study plan will be posted on APS's OASIS (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf) and the WestConnect website (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf).

h) Electronic Input and Comments. Stakeholders may provide input, comments, advice and questions on APS's local transmission planning process at any time electronically by sending emails to apstransmission@aps.com.

i) APS Public Local Planning Meeting Schedule. At the 2nd Quarter meetings, APS will review information on loads, resources (including demand response resources), and other needs from its transmission customers, together with specific requests submitted either prior to or during the APS 2nd Quarter meeting (*see* Section II.A.4.d.1) for inclusion in APS's draft local transmission study plan. At the 4th Quarter meeting, APS will review economic study requests received by October 31 (*see* Section II.A.4.d.2) and present a draft of its ten year plan for stakeholder review and comment. This schedule may be modified to coordinate with the subregional, regional and Western Interconnection-wide transmission

planning processes, subject to updated postings on the APS OASIS and WestConnect websites.

j) APS Distribution List. APS uses the SWAT distribution list to notify all stakeholders of all upcoming APS public local planning meetings. Any other stakeholder wanting to be included on the distribution list - including, but not limited to, sponsors of transmission solutions, generation solutions and NTAs - should submit its information to the APS Point of Contact at apstransmission@aps.com. APS will add that information to the SWAT distribution list.

k) Posting of Meeting Documents. APS will post all meeting-related notes, documents and drafts or final reports on its OASIS (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf) and WestConnect website (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf).

l) Posting of Public Documents. In order to permit all stakeholders access to the information posted on the APS OASIS and WestConnect website, only public information will be shared, and public business conducted, in the APS open public planning meetings.

C. Planning for Public Policy Requirements in the Local Planning Process

1. Procedures for Identifying Transmission Needs Driven by Public Policy Requirements

Stakeholders may participate in identifying local transmission needs driven by Public Policy Requirements by contacting APS's point of contact at apstransmission@aps.com. In addition, stakeholders have the opportunity to offer input or make proposals at APS's open meetings held pursuant to this Attachment E.

The process by which APS is to identify those local transmission needs driven by Public Policy Requirements for which a local transmission solution(s) will be evaluated, out of what may be a larger set of local transmission needs, is to utilize the two communication channels it has in place with stakeholders, identified above, through which local transmission needs driven by Public Policy Requirements are to be part of the open dialogue: (a) direct electronic communication to the APS dedicated email address, through which a stakeholder desiring to communicate directly with APS transmission planners may offer its views on which local transmission needs are ripe for evaluation for solutions, and (b) through participation in APS's open meetings held pursuant to this Attachment E.

In selecting those local transmission needs driven by Public Policy Requirements that will be evaluated for solutions in the current planning cycle, APS is to consider, on a non-discriminatory basis, factors, including but not limited to, the following:

(i) Whether the Public Policy Requirement is driving a local transmission need that can be reasonably identified in the current planning cycle;
(ii) the feasibility of addressing the local transmission need driven by the Public Policy Requirement in the current planning cycle;
(iii) the factual basis supporting the local transmission need driven by the Public Policy Requirement; and
(iv) whether a Public Policy Requirement has been identified for which a local transmission need has not yet materialized, or for which there may exist a local transmission need but the development of a solution to that need is premature. One example is a renewables portfolio increase that is enacted for implementation in a future year, and for which the process by which the renewable resource is to be identified, selected, and sited under the governing state-regulated resource adequacy process has not yet begun (making it premature to identify the location and scope of the local transmission need and/or the appropriate solution for the need).

No single factor shall necessarily be determinative in selecting among the potential transmission needs driven by Public Policy Requirements.

APS is not required to identify any particular set of local transmission needs driven by Public Policy Requirements, but if APS chooses not to identify any stakeholder-suggested local transmission need driven by a Public Policy Requirement as a transmission need for which solutions will be evaluated in the local transmission planning process, APS will post on its OASIS an explanation of why the suggested transmission need will not be evaluated. APS's OASIS posting will include both an explanation of those local transmission needs driven by Public Policy Requirements that have been identified for evaluation for potential solutions in the local transmission planning process, and an explanation why other stakeholder-suggested transmission needs driven by Public Policy Requirements were not identified for further evaluation. After considering the input of stakeholders, APS is to determine whether to move forward with the identification of a local solution to a particular local need driven by Public Policy Requirements.

2. Procedures for Evaluating Solutions to Identified Transmission Needs

Stakeholders may use the two communication avenues identified above (direct electronic communication via email and/or participation in APS's open meetings)

to participate in the evaluation of solutions to identified local transmission needs driven by Public Policy Requirements that are selected by APS for further evaluation. Stakeholder may provide comments on proposed solutions or may submit other proposed solutions to such local transmission needs.

After seeking the input of stakeholders, APS is to determine whether to select a particular local solution in its local transmission plan. APS will post its local transmission plan, which will include any such solutions selected.

The procedures for evaluating potential solutions to the identified local transmission needs driven by Public Policy Requirements are the same as those procedures used to evaluate any other project proposed in the local planning process.

3. Posting of Public Policy Needs

APS will maintain on its OASIS (i) a list of all local transmission needs identified that are driven by Public Policy Requirements and that are included in the studies for the current local planning cycle; and (ii) an explanation of why other suggested transmission needs driven by Public Policy Requirements will not be evaluated.

D. Ten Year Transmission System Plan

Each year APS uses the planning process described in Section II.A above to update its ten year transmission system plan. The APS ten year transmission system plan identifies new transmission facilities, 115 kV and above, and all facility replacements/upgrades required over the next ten years to reliably and economically serve its needs.

III. Regional Transmission Planning Process

In accordance with the Commission's regulations, this Attachment to the APS OATT implements the requirements for regional planning in accordance with Order No. 1000 and Order No. 890. APS engages in regional Planning and Coordination with the WestConnect regional process (Regional Planning Process).

The purpose of the Regional Planning Process is to produce a regional transmission plan (the Regional Plan) and provide a process for evaluating projects submitted for cost allocation in accordance with the provisions of this Attachment E and those business practices adopted by WestConnect in the WestConnect Regional Planning Process Business Practice Manual, as may be amended from time to time, available on the WestConnect website (Business Practice Manual).

A. Overview

The WestConnect Planning Region is defined by the transmission owners and transmission provider members (referred to generally as "transmission owners") participating in the Regional Planning Process and for whom WestConnect is conducting regional planning. The service areas of the transmission providers consist of all or portions of nine states: Arizona, California, Colorado, New Mexico, Nebraska, Nevada, South Dakota, Texas and Wyoming. Non-public utilities are invited to participate in the Regional Planning Process.

Following the effective date of APS's September 20, 2013 Order No. 1000 compliance filing (Effective Date), the WestConnect Order No. 1000 regional transmission planning management committee (PMC) will commence the Regional Planning Process. This committee will be responsible for administering the Regional Planning Process. In order to align its regional process with the western interregional coordination process, it is WestConnect's intent to begin its biennial process in even-numbered years. Should FERC acceptance of WestConnect's compliance filing result in an effective date in an odd-numbered year, WestConnect will conduct an abbreviated planning process in its first year and begin its biennial process the next year. To effectuate such an abbreviated process, the PMC will develop a study scope for the first year, including project submission deadlines, and post it to the WestConnect website within the first thirty (30) days of the year.

In conjunction with creating the new PMC, the WestConnect members, in consultation with interested stakeholders, will establish a separate project agreement (the Planning Participation Agreement) to permit interested stakeholders to participate in the Regional Planning Process. Although the Regional Planning Process is open to the public, stakeholders interested in having a voting right in decisions related to the Regional Planning Process will be required to execute the Planning Participation Agreement and any necessary confidentiality agreements.[1] The PMC will implement the stakeholder-

[1] If the Planning Participation Agreement is terminated, the requirement of becoming a signatory to the Planning Participation Agreement also terminates. In that situation, it would no longer be necessary for

developed Regional Planning Process, which will result in a Regional Plan for the tenyear transmission planning horizon.[2]

APS is a party to the WestConnect Project Agreement for Subregional Transmission Planning (WestConnect STP Project Agreement) (See APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf). The committees formed under the WestConnect STP Project Agreement and the WestConnect Steering Committee have no authority over the PMC and the PMC's decision making in implementing the Regional Planning Process.

1. WestConnect Planning Participation Agreement

Each WestConnect member will be a signatory to the Planning Participation Agreement, which formalizes the members' relationships and establishes obligations, including transmission owner coordination of regional transmission planning among the WestConnect participants and the local transmission planning processes and produce a Regional Plan.

2. Members

WestConnect has two types of members: (i) transmission owners that enroll in WestConnect in order to comply with Order No. 1000 planning and cost allocation requirements, as well transmission owners that elect to participate in the WestConnect Regional Planning Process without enrolling for Order No. 1000 cost allocation purposes, and (ii) stakeholders who wish to have voting input into the methodologies, studies, and decisions made in the execution of those requirements.

a) Joining the WestConnect Planning Region

A transmission owner that wishes to enroll or participate in the WestConnect Planning Region may do so by executing the Planning Participation Agreement and paying its share of costs as provided for in the Planning Participation Agreement.

A stakeholder that wishes to have voting input may join the WestConnect Planning Region by executing the Planning Participation Agreement, paying annual dues, and complying with applicable provisions as outlined in such agreement. For further information regarding membership dues,

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an entity to execute the Planning Participation Agreement before engaging in the WestConnect regional planning process, because the PMC will cease performing its functions under this Attachment K upon termination of the Planning Participation Agreement.

[2] Because the rights and responsibilities of the PMC terminate when the Planning Participation Agreement terminates, APS, as a Transmission Provider subject to Order No. 1000 compliance, will have to satisfy its regulatory compliance through other means. At that time, APS will make an appropriate filing with the Commission to demonstrate its continued compliance with Order No. 1000.

please see WestConnect's Planning Participation Agreement, located on the WestConnect website[3] and on file with FERC.

b) Exiting the WestConnect Planning Region

Should a transmission owner wish to exit the WestConnect Planning Region, it must submit notice in accordance with the Planning Participation Agreement and pay its share of any WestConnect expenditures approved prior to providing its formal notice of withdrawal from WestConnect Planning Region.

Should a stakeholder wish to exit the WestConnect Planning Region, it may do so by providing notice in accordance with the Planning Participation Agreement. Withdrawing stakeholders will forfeit any monies or dues paid to the PMC and agree to remit to the PMC any outstanding monies owed to the committee on or prior to the effective date of such withdrawal.

c) List of Enrolled Entities

Transmission owners enrolled in the WestConnect Planning Region for purposes of Order No. 1000:

- Arizona Public Service Company
- Black Hills Colorado Electric Utility Company, LP
- Black Hills Power, Inc.
- Cheyenne Light, Fuel, & Power Company
- El Paso Electric Company
- NV Energy, Inc. Operating Companies
- Public Service Company of Colorado
- Public Service Company of New Mexico
- Tucson Electric Power Company
- UNS Electric, Inc.

3. WestConnect Objectives and Procedures for Regional Transmission Planning

The Regional Planning Process will produce a Regional Plan that complies with existing Order No. 890 principles and carried forward in Order No. 1000:

- Coordination
- Openness
- Transparency

[3] The Planning Participation Agreement is located at http://www.westconnect.com./planning_agreement.php

- Information exchange
- Comparability
- Dispute resolution

APS, along with the other Planning Participation Agreement signatories, will work through the regional planning group processes, as applicable, to integrate their transmission plan into a single ten-year Regional Plan for the WestConnect Planning Region by:

a) Actively coordinating development of the Regional Plan, including incorporating information, as appropriate, from all stakeholders;

b) Coordinating, developing and updating common base cases to be used for all study efforts within the Regional Planning Process and taking steps to ensure that each plan adheres to the methodology and format developed for the Regional Plan;

c) Providing funding for the Planning Participation Agreement planning management functions pursuant to the Planning Participation Agreement;

d) Maintaining a regional planning section on the WestConnect website,[3] where all WestConnect planning information, including meeting notices, meeting minutes, reports, presentations, and other pertinent information is posted;

e) Posting detailed notices of all regional and local planning meeting agendas on the WestConnect website; and

f) Establishing a cost allocation process for regional transmission projects selected in the Regional Planning Process for cost allocation.

B. Roles in the Regional Transmission Planning Process

1. PMC Role

The PMC is responsible for bringing transmission planning information together and sharing updates on active projects. The PMC provides an open forum where any stakeholder interested in the planning of the regional transmission system in the WestConnect footprint can participate and obtain information regarding base cases, plans, and projects and provide input or express its needs as they relate to the transmission system. On a biennial basis and in coordination with its members, transmission owners, and other interested stakeholders, the PMC will develop the Regional Plan. The PMC, after considering the data and comments

[3] The WestConnect website is located at http://www.westconnect.com.

supplied by customers and other stakeholders, is to develop a regional transmission plan that treats similarly-situated customers (e.g., network, retail network, and native load) comparably in transmission system planning.

The PMC is charged with development and approval of the Regional Plan. The PMC will be comprised of representatives from each stakeholder sector. The PMC will be empowered to create and dissolve subcommittees as necessary to facilitate fulfillment of its responsibilities in developing the Regional Plan.

2. Stakeholder Participation and Assistance

Stakeholders may participate in the Regional Planning Process in any one or more of the following ways: (a) by joining one of five WestConnect regional transmission planning membership sectors described below; (b) by attending publicly-posted WestConnect regional transmission planning stakeholder meetings; and/or (c) by submitting project proposals for consideration and evaluation in the Regional Planning Process.

Attendance at meetings is open to all interested stakeholders. These meetings will include discussion of models, study criteria and assumptions, and progress updates. Formal participation, including voting as allowed by the process, can be achieved through payment of applicable fees and annual dues in accordance with the Planning Participation Agreement. Transmission Owners with a Load Serving Obligation will not be responsible for annual dues because they will be the default source of monies to support WestConnect activities beyond dues paid by other organizations.

WestConnect Planning Region members will assist stakeholders interested in becoming involved in the Regional Planning Process by directing them to appropriate contact persons and websites. (*See* APS's Attachment E Hyperlinks List posted on the APS OASIS http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf). All stakeholders are encouraged to bring their plans for future generators, loads or transmission services to the WestConnect regional planning meetings. Each transmission planning cycle will contain a period during which project ideas are accepted for potential inclusion in that cycle's Regional Plan.

3. Forum for Evaluation

The WestConnect Regional Planning Process provides a forum for transmission project sponsors to introduce their specific projects to interested stakeholders and potential partners and allows for joint study of these projects by interested parties, coordination with other projects, and project participation, including ownership from other interested parties. This may include evaluation of transmission alternatives or NTAs in coordination with the Regional Planning Process.

4. Stakeholder Meetings

WestConnect will hold open stakeholder meetings on at least a semi-annual basis, or as needed and noticed by the PMC with thirty (30) days advance notice, to update stakeholders about its progress in developing the Regional Plan and to solicit input regarding material matters of process related to the regional transmission plan. Notice for such meetings will be posted on the WestConnect website and via email to the Regional Transmission Planning email distribution list.

The meeting agendas for all WestConnect transmission planning meetings will be sufficiently detailed, posted on the WestConnect website, and circulated in advance of the meetings in order to allow stakeholders the ability to choose their meeting attendance most efficiently.

5. WestConnect Planning Governance Process

a) Membership Sectors

The Regional Planning Process will be governed by the PMC, which will be tasked with executing the Regional Planning Process and have authority to approve the Regional Plan. For those entities desiring to be a part of the management of the Regional Planning Process, one of five PMC membership sectors is available:

- Transmission Owners with Load Serving Obligations
- Transmission Customers
- Independent Transmission Developers and Owners
- State Regulatory Commissions
- Key Interest Groups

Only transmission owners that have load serving obligations individually or through their members may join the Transmission Owners with Load Serving Obligations membership sector. The Transmission Owners with Load Serving Obligations sector will be comprised of (a) those transmission owners that enroll in the WestConnect Planning Region for purposes of Order No. 1000; and (b) those transmission owners that elect to participate in the WestConnect Regional Planning Process as Coordinating Transmission Owners.

Except for Public Utilities that are required to comply with Order No. 1000, any entity may join any membership sector for which it qualifies, but may only participate in one membership sector at a time. If a non-public utility is qualified to join the Transmission Owners with Load Serving Obligations sector as well as one or more other sectors, and the non-public utility elects to join a sector other than the Transmission

Owners with Load Serving Obligations sector, the PMC will not perform the function of regional transmission planning for that entity. Additionally, if a member of the Transmission Owner with Load Serving Obligations sector owns transmission facilities located in another planning region, the PMC will not perform the function of regional planning for such facilities located in another planning region.

b) Planning Management Committee

The PMC will be empowered to create and dissolve subcommittees as necessary to ensure timely fulfillment of its responsibilities; to assess fees for membership status on the PMC; and to assess fees for projects submitted for evaluation as part of the Regional Planning Process. The PMC is to manage the Regional Planning Process, including approval of the Regional Plan that includes application of regional cost allocation methodologies.

The PMC is to coordinate and have the decision-making authority over whether to accept recommendations from the Planning Subcommittee (PS) and Cost Allocation Subcommittee (CAS). The PMC, among other things, is to develop and approve the Regional Plan based on recommendations from the PS and CAS; and develop and approve a scope of work, work plan, and periodic reporting for WestConnect planning functions, including holding a minimum of two stakeholder informational meetings per year. The PMC is to appoint the chair of the PS and CAS. The chair for each subcommittee must be a representative of the Transmission Owners with Load Serving Obligations member sector.

The PS responsibilities include, but are not limited to, reviewing and making recommendations to the PMC for development of study plans, establishing base cases, evaluating potential solutions to regional transmission needs, producing and recommending the Regional Plan for PMC approval and coordinating with the CAS. The PS is to provide public notice of committee meetings and provide opportunities for stakeholders to provide comments on the process and proposed plan.

The CAS responsibilities include, but are not limited to, performing and/or overseeing the performance of the cost allocation methodology. The CAS also is to review and make recommendations to the PMC for modifying definitions of benefits and cost allocation methodology as necessary to meet WestConnect planning principles on identification of beneficiaries and cost allocation. The CAS is to review and recommend projects to the PMC for purposes of cost allocation identified in the Regional Planning Process. The CAS is to provide public notice of committee meetings and provide opportunities for stakeholders to provide comments on the process and proposed cost allocation.

All actions of the PMC (including approval of the Regional Plan) will be made possible by satisfying either of the following requirements:

- 75% of the members voting of at least three sectors approving a motion, where one of the three sectors approving is the Transmission Owners with Load Serving Obligations sector; or
- 75% of the members voting of the four member sectors other than the Transmission Owners with Load Serving Obligation sector approving a motion and two-thirds (2/3's) of the members voting of the Transmission Owners with Load Serving Obligation sector approving a motion.

Each entity within a membership sector is entitled to one vote on items presented for decision.

Any closed executive sessions of the PMC will be to address matters outside of the development of the Regional Planning Process, including matters involving contracts, personnel, financial matters, or legal matters such as, but not limited to, litigation (whether active or threatened).

C. Submission of Data by Customers, Transmission Developers, and Transmission Owners

When stakeholder feedback on modeling assumptions is requested, the data submittal period for such feedback will be established by the PMC. In all cases, requests for submittal of data from WestConnect members and stakeholders will be followed by a data submittal window lasting no less than thirty (30) days from the date of such requests. In addition, consistent with the Regional Planning Process, any interested stakeholder may submit project ideas for consideration in the Regional Plan without a need for that stakeholder's project to qualify for a project submittal for purposes of cost allocation. Specific project submittals are treated differently than generalized project ideas. For any project submittal seeking study by the PMC in the Regional Planning Process to address a regional need identified by the PMC (without regard to whether the project seeks cost allocation), a project submittal deposit will be collected and made subject to later true-up based upon the actual cost of the study (ies) performed. Project submittals are to be accepted through the fifth (5th) quarter of the planning cycle (or first (1st) quarter of the second (2nd) year), and are addressed in Section III.C.5 of this Attachment E. A timeline detailing the timing and notice for submission of information and input can be found in Exhibit 2 of this Attachment E.

1. Transmission Customers

Transmission customers shall generally submit their load forecast and other relevant data through the WestConnect Planning Region member's

(e.g., APS's) local transmission planning process. However, from time to time, there may be a need for transmission customers participating in the Regional Planning Process to submit data directly to WestConnect. This data may include, but is not limited to load forecasts, generation resource plans, non-transmission alternatives, proposed transmission upgrade recommendations, and feedback regarding certain assumptions in the planning process.

No less than thirty (30) days' notice will be given for customers to submit any required data and data submissions will generally be able to be made via email or by posting information to a designated website.

2. Independent Transmission Developers and Owners

Transmission Developers are entities with project ideas they wish to submit into the Regional Planning Process. These may include project submittals that the developer wishes to be considered to address an identified regional need (whether or not the project is eligible for regional cost allocation).

Each regional transmission planning cycle will include a submission period for project, as described below. Notice of the submission period will be posted on the WestConnect website and will also be made via e-mail to WestConnect stakeholders. The submission period will last for no less than thirty (30) days and during this time, any entity that wishes to submit a transmission project for consideration in the Regional Planning Process to address an identified regional need may do so.

Projects proposed by Independent Transmission Developers and Owners are subject to the same reliability standards as projects submitted by Transmission Owners with Load Serving Obligations. The project developer shall register with NERC and WECC in accordance with the applicable registration rules in the NERC Rules of Procedure. In addition, project developers shall observe and comply with regional requirements as established by the applicable regional reliability organizations, and all local, state, regional, and federal requirements.

3. Merchant Transmission Developers

Merchant Transmission Developers are entities pursuing completion of projects that do not wish to have their projects considered for regional cost allocation. Nonetheless, coordination between merchant projects and the Regional Planning Process is necessary to affect a coordinated Regional Plan that considers all system needs.

Each regional transmission planning cycle will include a submission period for project submittals to address an identified regional need, as described below. Notice of the submission period will be posted on the WestConnect website and will also be made via e-mail to WestConnect stakeholders. In addition, it is necessary for merchant transmission developers to provide adequate information and data to allow the PMC to assess the potential reliability and operational impacts of the merchant transmission developer's proposed transmission facilities on other systems in the region. The submission period will last for no less than thirty (30) days and during this time sponsors of merchant transmission projects that are believed to impact the WestConnect Planning Region will be asked to provide certain project information.

Projects proposed by Merchant Transmission Developers are subject to the same reliability standards as projects submitted by Transmission Owners with Load Serving Obligations. The project developer is responsible for properly registering with NERC and WECC in accordance with the applicable registration rules in the NERC Rules of Procedure. In addition, project developers shall observe and comply with regional requirements as established by the applicable regional reliability organization and all local, state, regional, and federal requirements.

4. Transmission Owners with Load Serving Obligation

Transmission owners and transmission providers that are members of the WestConnect Planning Region are responsible for providing all necessary system information through the Regional Planning Process.

At the beginning of each regional transmission planning cycle, transmission owners and transmission providers that are participating in the WestConnect Regional Planning Process will be responsible for verifying the accuracy of any data (including, but not limited to, system topology and project proposal information) they have previously submitted. Transmission owners will also be required to submit all relevant data for any new projects being proposed for inclusion in the Regional Plan to address an identified regional need in accordance with Section III.C.5 below. Transmission owners will also be responsible for submitting any project plans developed through their local transmission planning processes for inclusion in the Regional Plan models.

5. Transmission Project Submittals

All submittals of transmission projects to address an identified regional need, without regard to whether or not the project seeks regional cost allocation, are to contain the information set forth below, together with the identified deposit for study costs, and be submitted timely within the

posted submittal period in order for the project submittal to be eligible for evaluation in the Regional Planning Process. A single project submittal may not seek multiple study requests. To the extent a project proponent seeks to have its project studied under a variety of alternative project assumptions, the individual alternatives must be submitted as individual project submittals. To be eligible to propose a project for selection in the Regional Plan a project proponent must also be an active member in good standing within one of the five PMC membership sectors described above in Section III.B.5.a.

- Submitting entity contact information
- Explanation of how the project is a more efficient or cost-effective solution compared to regional transmission needs*
- A detailed project description including, but not limited to, the following:
    - Scope
    - Points of interconnection to existing (or planned) system
    - Operating Voltage and Alternating Current or Direct Current status
    - Circuit Configuration (Single, Double, Double-Circuit capable, etc.)
    - Impedance Information
    - Approximate circuit mileage
- Description of any special facilities (series capacitors, phase shifting transformers, etc.) required for the project
- Diagram showing geographical location and preferred route; general description of permitting challenges
- Estimated Project Cost and description of basis for that cost*
- Any independent study work of or relevant to the project
- Any WECC study work of or relevant to the project
- Status within the WECC path rating process
- The project in-service date
- Change files to add the project to a standard system power flow model
- Description of plan for post-construction maintenance and operation of the proposed line
- A $25,000 deposit to support the cost of relevant study work, subject to true-up (up or down) based upon the actual cost of the study (ies)*. The true-up will include interest on the difference between the deposit and the actual cost, with such interest calculated in accordance with section 35.19a(a(2) of FERC's regulations. A description of the costs to which the deposit was applied, how the costs were calculated, and an accounting of the costs will be provided to each project sponsor within 30 calendar days of the completion of the study. Dispute resolution is addressed pursuant to Section V.

- Comparison Risk Score from WECC Environmental Data Task Force, if available
- Impacts to other regions. The applicant must provide transmission system impacts studies showing system reliability impacts to neighboring transmission systems or another transmission planning region. The information should identify all costs associated with any required upgrades to mitigate adverse impacts on other transmission systems.*

  If impact studies and costs are not available at the time of submittal, the project proponent may request that impact studies be performed, at the project proponent's expense, as part of the analysis to determine whether the project is the more efficient or cost-effective solution. Requests for transmission system impact studies are approved through the PMC depending on whether the project proponent provides funding for the analysis The PMC will provide, subject to appropriate confidentiality and CEII restrictions, the information in the possession of the PMC that an applicant needs to perform the transmission system impact study and to identify the costs associated with any upgrades required to mitigate adverse impacts.

*Merchant transmission developers are exempt from these requirements.

There is to be an open submission period for project proposals to address identified regional needs. Notice of the submission period shall be posted on the WestConnect website and will also be made via email to WestConnect stakeholders. The submission period shall last for no less than thirty (30) days and will end by the fifth (5th) quarter of the WestConnect planning cycle (or first (1st) quarter of the second (2nd) year of the planning cycle). Proposals submitted outside that window will not be considered. The PMC will have the authority to determine the completeness of a project submittal. Project submittals deemed incomplete will be granted a reasonable opportunity to cure any deficiencies identified in writing by the PMC.

Any stakeholder wishing to present a project submittal to address an identified regional need shall be required to submit the data listed above to be considered in the Regional Planning Process. Should the submitting stakeholder believe certain information is not necessary, it shall identify the information it believes is not necessary and shall provide a justification for its conclusion that the information is not necessary. The PMC retains the sole authority for determining completeness of the information submittal. After the completion of the project submittal period, the PMC will post a document on the WestConnect website detailing why any

projects were rejected as incomplete. Upon posting of the document, any project submittal rejected as incomplete will be given a reasonable opportunity to cure the reason(s) it was rejected to the satisfaction of the PMC in its sole discretion.

6. Submission of Non-Transmission Alternatives Projects

Any stakeholder may submit projects proposing non-transmission alternatives to address an identified regional need for evaluation under the Regional Planning Process. The submission period will last for no less than thirty (30) days. The submission window will end by the fifth (5th) quarter of the WestConnect planning cycle (or first (1st) quarter of the second (2nd) year of the planning cycle). The following criteria must be satisfied in order for a non-transmission alternative project submittal to be evaluated under the Regional Planning Process:

- Basic description of the project (fuel, size, location, point of contact)
- Operational benefits
- Load offset, if applicable
- Description of the issue sought to be resolved by the generating facility or NTA, including reference to any results of prior technical studies
- Network model of the project flow study
- Short-circuit data
- Protection data
- Other technical data that might be needed for resources
- Project construction and operating costs
- Additional miscellaneous data (e.g., change files if available)

As with entities submitting a transmission project under Section III.C.5, those who submit under Section III.C.6 a non-transmission alternative under the Regional Planning Process must adhere to and provide the same or equivalent information (and deposit for study costs) as transmission alternatives. Should the submitting stakeholder believe certain information is not necessary, it shall identify the information it believes is not necessary and shall provide a justification for its conclusion that the information is not necessary. Although NTA projects will be considered in the Regional Planning Process, they are not eligible for regional cost allocation.

7. The WestConnect Regional Planning Cycle

The WestConnect regional transmission planning cycle is biennial. The WestConnect PMC will develop and publish a Regional Plan every other year.

D. Transmission Developer Qualification Criteria

1. In General

A transmission developer that seeks to be eligible to use the regional cost allocation methodology for a transmission project selected in the Regional Plan for purposes of cost allocation must identify its technical and financial capabilities to develop, construct, own, and operate a proposed transmission project. To be clear, satisfaction of the criteria set forth below does not confer upon the transmission developer any right to:

(i) construct, own, and/or operate a transmission project,
(ii) collect the costs associated with the construction, ownership and/or operation of a transmission project,
(iii) provide transmission services on the transmission facilities constructed, owned and/or operated.

The applicable governing governmental authorities are the only entities empowered to confer any such rights to a transmission developer. The PMC is not a governmental authority.

2. Information Submittal

A transmission developer seeking eligibility for potential designation as the entity eligible to use the regional cost allocation for a transmission project selected in the Regional Plan for purposes of cost allocation must submit to the PMC the following information during the first quarter of the WestConnect planning cycle, except that during the first WestConnect planning cycle the PMC shall have the discretion to extend the period for the submission of this information:

a) Overview
A brief history and overview of the applicant demonstrating that the applicant has the capabilities to finance, own, construct, operate and maintain a regional transmission project consistent with Good Utility Practice within the state(s) within the WestConnect Planning Region. The applicant should identify all transmission projects it has constructed, owned, operated and/or maintained, and the states in which such projects are located.

b) Business Practices
A description of the applicant's experience in processes, procedures, and any historical performance related to engineering, constructing, operating and maintaining electric transmission facilities, and managing teams performing such activities. A discussion of the types of resources, including relevant capability

and experience (in-house labor, contractors, other transmission providers, etc.) contemplated for the licensing, design, engineering, material and equipment procurement, siting and routing, Right-of-Way (ROW) and land acquisition, construction and project management related to the construction of transmission projects. The applicant should provide information related to any current or previous experience financing, owning, constructing, operating and maintaining and scheduling access to regional transmission facilities.

c) Compliance History

The applicant should provide an explanation of any violation(s) of NERC and/or Regional Entity Reliability Standards and/or other regulatory requirements pertaining to the development, construction, ownership, operation, and/or maintenance of electric transmission facilities by the applicant or any parent, owner, affiliate, or member of the applicant that is an Alternate Qualifying Entity (ies) under Section III.D.2.l. Notwithstanding the foregoing, if at the time the applicant submits the information required by this Section III.D.2, the applicant has not developed, constructed, owned, operated or maintained electric transmission facilities, the applicant shall instead submit such information for any electric distribution or generating facilities it develops, constructs owns, operates and/or maintains, as applicable, to demonstrate its compliance history.

d) Participation in the Regional Planning Process

A discussion of the applicant's participation within the Regional Planning Process or any other planning forums for the identification, analysis, and communication of transmission projects.

e) Project Execution

A discussion of the capability and experience that would enable the applicant to comply with all on-going scheduling, operating, and maintenance activities associated with project development and execution.

f) Right-of-Way Acquisition Ability

The applicant's preexisting procedures and historical practices for siting, permitting, landowner relations, and routing transmission projects including, acquiring ROW and land, and managing ROW and land acquisition for transmission facilities. Any process or procedures that address siting or routing transmission facilities through environmentally sensitive areas and mitigation thereof. If the entity does not have such preexisting procedures, it shall

provide a detailed description of its plan for acquiring ROW and land and managing ROW and land acquisition.

g) Financial Health

The applicant must demonstrate creditworthiness and adequate capital resources to finance transmission projects. The applicant shall either have an investment grade credit rating from both S&P and Moody's or provide corporate financial statements for the most recent five years for which they are available. Entities that do not have a credit rating, or entities less than five years old, shall provide corporate financial statements for each year that is available. Alternatively, the applicant may provide a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the PMC.

The following ratios must be provided with any explanations regarding the ratios:

- Funds from operations-to-interest coverage.
- Funds from operation-to-total debt.
- Total debt-to-total capital.
- The applicant must indicate the levels of the above ratios the company will maintain during and following construction of the transmission element.

The PMC may request additional information or clarification as necessary.

h) Safety Program

The applicant must demonstrate that they have an adequate internal safety program, contractor safety program, safety performance record and program execution.

i) Transmission Operations

The applicant must: demonstrate that it has the ability to undertake control center operations capabilities, including reservations, scheduling, and outage coordination; demonstrate that it has the ability to obtain required path ratings; provide evidence of its NERC compliance process and compliance history, as applicable; demonstration of any existing required NERC certifications or the ability to obtain any applicable NERC certifications; establish required Total Transfer Capability; provide evidence of storm/outage response and restoration plans; provide evidence of its record of past reliability performance, as applicable; and provide a statement of which entity will be operating completed transmission facilities and will be responsible for staffing, equipment, and crew training. A potential transmission developer

will not be required to have an operations entity under contract at the time it seeks to be eligible to use the regional cost allocation method for a transmission project selected in the Regional Plan for purposes of cost allocation.

j) Transmission Maintenance

The applicant must demonstrate that they have, or have plans to develop, an adequate transmission maintenance program, including staffing and crew training, transmission facility and equipment maintenance, record of past maintenance performance, NERC compliance process and any past history of NERC compliance or plans to develop a NERC compliance program, statement of which entity will be performing maintenance on completed transmission facilities. A potential transmission developer will not be required to have a maintenance entity under contract at the time it seeks to be eligible to use the regional cost allocation method for a transmission project selected in the Regional Plan for purposes of cost allocation.

k) Regulatory Compliance

The applicant must demonstrate the ability, or plans to develop the ability, to comply with Good Utility Practice, WECC criteria and regional reliability standards, NERC Reliability Standards, construction standards, industry standards, and environmental standards.

l) Affiliation Agreements

A transmission developer can demonstrate that it meets these criteria either on its own or by relying on an entity or entities with whom it has a corporate affiliation or other third-parties with relevant experience (Alternate Qualifying Entity (ies)). In lieu of a contractual or affiliate relationship with one or more Alternate Qualifying Entity (ies) and to the extent a transmission developer intends to rely upon third-parties for meeting these criteria, the transmission developer must provide in attestation form an identification of its preferred third-party contractor(s) and indicate when it plans to enter into a definitive agreement with its third-party contractor(s). If the transmission developer seeks to satisfy the criteria in whole or in part by relying on one or more Alternate Qualifying Entity (ies), the transmission developer must submit:
(1) materials demonstrating to the PMC's satisfaction that the Alternate Qualifying Entity (ies) meet(s) the criteria for which the transmission developer is relying upon the alternate qualifying entity (ies) to satisfy; and (2) a commitment to provide in any project cost allocation application an executed agreement that contractually obligates the Alternate Qualifying Entity (ies) to

perform the function(s) for which the transmission developer is relying upon the Alternate Qualifying Entity (ies) to satisfy.

m) WestConnect Membership

A transmission developer must be a member of either the WestConnect Transmission Owners with Load Serving Obligations or Independent Transmission Developers and Owners sector, or must agree to join the WestConnect Transmission Owners with Load Serving Obligations or Independent Transmission Developers and Owners sector and agree to sign the Planning Participation Agreement if the transmission developer seeks to be an entity eligible to use the regional cost allocation method for a transmission project selected in the Regional Plan for purposes of cost allocation.

n) Other

Any other relevant project development experience that the transmission developer believes may demonstrate its expertise in the above areas.

3. Identification of Transmission Developers Satisfying the Criteria

a) Notification to Transmission Developer

No later than September 30 each year, the PMC is to notify each transmission developer whether it has satisfied the stated criteria. A transmission developer failing to satisfy one or more of the qualification criteria is to be informed of the failure(s) and accorded an additional opportunity to cure any deficiency (ies) within thirty (30) calendar days of notice from the PMC by providing any additional information.

The PMC is to inform the transmission developer whether the additional information satisfies the qualification criteria within forty-five (45) calendar days of receipt of the additional information.

The PMC is to identify the transmission developers that have satisfied the qualification criteria (the "Eligible Transmission Developers") by posting on the WestConnect website, on or before December 31 of each year.

b) Annual Recertification Process and Reporting Requirements

By June 30 of each year, each Eligible Transmission Developer must submit to WestConnect a notarized letter signed by an authorized officer of the Eligible Transmission Developer certifying that the Eligible Transmission Developer continues to meet the current qualification criteria.

The Eligible Transmission Developer shall submit to the PMC an annual certification fee equal to the amount of the WestConnect annual membership fee. If the Eligible Transmission Developer is a member of WestConnect and is current in payment of its annual membership fee, then no certification fee will be required.

If at any time there is a change to the information provided in its application, an Eligible Transmission Developer shall be required to inform the PMC chair within thirty (30) calendar days of such change so that the PMC may determine whether the Eligible Transmission Developer continues to satisfy the qualification criteria. Upon notification of any such change, the PMC shall have the option to: (1) determine that the change does not affect the status of the transmission developer as an Eligible Transmission Developer; (2) suspend the transmission developer's eligibility status until any deficiency in the transmission developer's qualifications is cured; (3) allow the transmission developer to maintain its eligibility status for a limited time period, as specified by the PMC, while the transmission developer cures the deficiency; or (4) terminate the transmission developer's eligibility status.

c) Termination of Eligibility Status

The PMC may terminate an Eligible Transmission Developer's status if the Eligible Transmission Developer: (1) fails to submit its annual certification letter; (2) fails to pay the applicable WestConnect membership fees; (3) experiences a change in its qualifications and the PMC determines that it may no longer qualify as an Eligible Transmission Developer; (4) informs the PMC that it no longer desires to be an Eligible Transmission Developer; (5) fails to notify the PMC of a change to the information provided in its application within thirty (30) days of such change; or (6) fails to execute the Planning Participation Agreement as agreed to in the qualification criteria within a reasonable time defined by the PMC, after seeking to be an entity eligible to use the regional cost allocation method for a transmission project selected in the Regional Plan for purposes of cost allocation.

E. Regional Planning Methodology and Protocols; Evaluation and Selection of Solution Alternatives

1. Overview of Regional Planning Methodology and Evaluation Process

The Regional Planning Process is intended to identify regional needs and the more efficient or cost-effective solutions to satisfy those needs. Consistent with Order No. 890, qualified projects timely submitted through the Regional Planning Process will be evaluated and selected from competing solutions and resources

such that all types of resources, as described below, are considered on a comparable basis. The same criteria and evaluation process will be applied to competing solutions and/or projects, regardless of type or class of stakeholder proposing them. Where a regional transmission need is identified, the PMC is to perform studies that seek to meet that need through regional projects, even in the absence of project proposals advanced by stakeholders or projects identified through the WECC process. When the PMC performs a study to meet an identified regional need in circumstances where no stakeholder has submitted a project proposal to meet that regional need, the PMC is to pursue such studies in a not unduly discriminatory fashion. The study methods employed for PMC-initiated studies will be the same types of study methods employed for stakeholder-initiated studies (see, e.g., Section III.E.2 addressing the use of NERC Transmission Planning (TPL) Reliability Standards for regional reliability projects, Section III.E.3 addressing the use of production cost modeling for regional economic projects, and Section III.E.4 addressing the identification of Public Policy Requirements for regional public policy driven projects).

The solution alternatives will be evaluated against one another on the basis of the following criteria to select the preferred solution or combination of solutions: (1) ability to fulfill the identified need practically; (2) ability to meet applicable reliability criteria or NERC Transmission Planning Standards issues; (3) technical, operational and financial feasibility; (4) operational benefits/constraints or issues; (5) cost-effectiveness over the time frame of the study or the life of the facilities, as appropriate (including adjustments, as necessary, for operational benefits/constraints or issues, including dependability); (6) where applicable, consistency with Public Policy Requirements or regulatory requirements, including cost recovery through regulated rates; and (7) a project must be determined by the PMC to be a more efficient or cost-effective solution to one or more regional transmission needs to be eligible for regional cost allocation, as more particularly described below.

The Regional Planning Process provides for an assessment of regional solutions falling in one or more of the following categories:

- Regional reliability solutions
- Regional economic solutions
- Regional transmission needs driven by Public Policy Requirements.
- Non-transmission alternatives

APS encourages all interested stakeholders to consult the Business Practice Manual for additional details regarding the planning process, timing, and implementation mechanics. A flow chart depicting the Regional Planning Process is attached hereto as Exhibit 1.

All WestConnect Transmission Owners with Load Serving Obligations shall be responsible for submitting their local transmission plans for inclusion in the

Regional Plan in accordance with the timeline stated in the Business Practice Manual. Those individual plans will be included in the Regional Plan base case system models.

2. WestConnect Reliability Planning Process

Once the base case is established and verified, the PMC is to perform a regional reliability assessment in which the base case system models will then be checked for adherence to the relevant NERC Transmission Planning Standards, through appropriate studies, including, but not limited to, steady-state power flow, voltage, stability, short circuit, and transient studies as more specifically outlined in the Business Practice Manual. If a reliability violation is identified in this power flow process, the violation will be referred back the appropriate transmission owner.

The PMC will identify projects to resolve any regional violations that impact more than one transmission owner of relevant NERC or WECC Transmission Planning Standards or WECC criteria. In addition, as part of the Regional Planning Process, an opportunity will be afforded to any interested party to propose regional reliability projects that are more efficient or cost-effective than other proposed solutions. The PMC will then identify the more efficient or cost-effective regional transmission project that meets the identified regional transmission need, taking into account factors such as how long the project will take to complete and the timing of the need. Because local transmission owners are ultimately responsible for compliance with NERC Reliability Standards and for meeting local needs the local transmission plans will not be modified; however, the PMC may identify more efficient or cost-effective regional transmission projects. As seen in Exhibit 2 of this Attachment E, the PMC will perform the regional reliability assessment and, if necessary, identify a regional transmission need for transmission projects to resolve any violations that impact more than one transmission owner in the fourth quarter of the planning cycle.

3. WestConnect Economic Planning Process

As part of the WestConnect Regional Planning Process, the PMC is to analyze whether there are projects that have the potential to reduce the total delivered cost of energy by alleviating congestion or providing other economic benefits to the transmission system located within the WestConnect Planning Region through production cost modeling. This analysis also shall utilize WECC Board-approved recommendations to further investigate congestion within the WestConnect Planning Region for congestion relief or economic benefits that has subsequently been validated by WestConnect. Additional projects may also be proposed by stakeholders or developed through the stakeholder input process for evaluation of economic benefits. Under the Regional Planning Process, the PMC will identify more efficient or cost-effective regional transmission projects, but will not modify local transmission plans.

The WestConnect economic planning process will analyze benefits via detailed production cost simulations. The models employed in the production cost simulations will appropriately consider the impact of transmission projects on production cost and system congestion. The WestConnect economic planning process will also consider the value of decreased reserve sharing requirements in the development of a Regional Plan that is more efficient or cost-effective. As seen in Exhibit 2 of this Attachment E, the PMC will develop the production cost modeling analysis in the second (2^{nd}) and third (3^{rd}) quarters of the planning cycle and identify economic transmission projects in the sixth (6^{th}) quarter and parts of the fifth (5^{th}) and seventh (7^{th}) quarters of the planning cycle.

4. WestConnect Public Policy Planning Process

a) Procedures for Identifying Regional Transmission Needs Driven by Public Policy Requirements

It is anticipated that any regional transmission need that is driven by Public Policy Requirements will be addressed initially within the local planning cycles of the individual transmission owners in the WestConnect Planning Region (through the consideration of local transmission needs driven by a Public Policy Requirement, since a Public Policy Requirement is a requirement that is imposed upon individual transmission owners (as opposed to a requirement that is imposed on a geographic region). For those Public Policy Requirements that affect more than one transmission owner in the WestConnect Planning Region, a solution identified at the local level to satisfy the local needs of the affected transmission owner(s), may also satisfy a regional transmission need identified by the PMC for the WestConnect Planning Region.

WestConnect transmission owner members that are planning consistent with Order No. 890 will continue to conduct local transmission planning processes (Section II.C of this Attachment E), which provide a forum for discussions on local transmission needs driven by Public Policy Requirements. These local processes provide the basis for the individual transmission owners' local transmission plans, which are then incorporated into the regional base case at the start of the Regional Planning Process under Order No. 1000.

The PMC is to provide notice on the WestConnect website of both regional transmission planning meetings convened by the PMC for the WestConnect region, and local transmission planning meetings of the individual transmission owners in the WestConnect region.

The PMC will begin the evaluation of regional transmission needs driven by Public Policy Requirements by identifying any Public Policy Requirements that are driving local transmission needs of the transmission

owners in the WestConnect Planning Region, and including them in the transmission system models (the regional base case) underlying the development of the Regional Plan. Then, the PMC will seek the input of stakeholders in the WestConnect region on those Public Policy Requirements in an effort to engage stakeholders in the process of identifying regional transmission needs driven by Public Policy Requirements. The PMC will communicate with stakeholders through public postings on the WestConnect website of meeting announcements and discussion forums. In addition, the PMC is to establish an email distribution list for those stakeholders who indicate a desire to receive information via electronic list serves.

After allowing for stakeholder input on regional transmission needs driven by Public Policy Requirements and regional solutions to those needs, as part of the Regional Planning Process, the PMC is to identify in the Regional Plan those regional transmission needs driven by Public Policy Requirements that were selected by the PMC for evaluation of regional solutions.

In selecting those regional transmission needs driven by Public Policy Requirements that will be evaluated for regional solutions in the current planning cycle, the PMC is to consider, on a non-discriminatory basis, factors, including but not limited to, the following:

(i) whether the Public Policy Requirement is driving a regional transmission need that can be reasonably identified in the current planning cycle;

(ii) the feasibility of addressing the regional transmission need driven by the Public Policy Requirement in the current planning cycle;

(iii) the factual basis supporting the regional transmission need driven by the Public Policy Requirement; and

(iv) whether a Public Policy Requirement has been identified for which a regional transmission need has not yet materialized, or for which there may exist a regional transmission need but the development of a solution to that need is premature.

No single factor shall necessarily be determinative in selecting among the potential regional transmission needs driven by Public Policy Requirements.

The process by which PMC is to identify those regional transmission needs for which a regional transmission solution(s) will be evaluated, out of what may be a larger set of regional transmission needs, is to utilize the communication channels it has in place with stakeholders, identified above

(open meetings and discussion forums convened by the PMC), through which regional transmission needs driven by Public Policy Requirements are to be part of the open dialogue.

b) Procedures for Identifying Solutions to Regional Transmission Needs Driven by Public Policy Requirements

Stakeholders are to have opportunities to participate in discussions during the Regional Planning Process with respect to the development of solutions to regional transmission needs driven by Public Policy Requirements. Such participation may take the form of attending planning meetings, offering comments for consideration by the PMC on solutions to regional needs driven by Public Policy Requirements, and offering comments on proposals made by other stakeholders or by the PMC. Stakeholders that are members of the WestConnect PMC are performing the function of regional transmission planning, and, developing regional solutions to identified regional transmission needs driven by Public Policy Requirements through membership on subcommittees of the PMC.

After allowing for stakeholder input on solutions to regional transmission needs driven by Public Policy Requirements, as part of the Regional Planning Process, the PMC is to identify in the Regional Plan those regional transmission solutions driven by Public Policy Requirements that were selected by the PMC and any regional transmission project(s) that more efficiently or cost-effectively meet those needs.

The procedures for identifying and evaluating potential solutions to the identified regional transmission needs driven by Public Policy Requirements are the same as those procedures used to evaluate any other project proposed in the Regional Planning Process, whether or not submitted for purposes of cost allocation.

The PMC will perform a Public Policy Requirements analysis to help identify if a transmission solution is necessary to meet an enacted public policy. For a transmission need driven by Public Policy requirements, the PMC will identify if a more efficient or cost effective regional transmission solution exists based upon several different considerations, including consideration of whether the project is necessary and capable of meeting transmission needs driven by Public Policy Requirements, while also:

i. Efficiently resolving any criteria violations identified by studies pursuant to any relevant NERC Transmission Planning (TPL) Reliability Standards for regional reliability projects or WECC Transmission Planning

Reliability Standards or WECC criteria, as applicable, that could impact more than one Transmission Owner as a result of a Public Policy requirement or,

ii. Producing economic benefits shown through detailed production cost simulations. The models employed in the production cost simulations will appropriately consider the impact of transmission projects on production cost, system congestion and the value of decreased reserve sharing requirements.

The PMC will develop the public policy analysis in the sixth (6^{th}) quarter and parts of the fifth (5^{th}) and seventh (7^{th}) quarters of the planning cycle.

c) Proposed Public Policy

A public policy that is proposed, but not required (because it is not yet enacted or promulgated by the applicable governmental authority) may be considered through Section III.E.3 (WestConnect Economic Planning Process) of this Attachment E, if time and resources permit.

d) Posting of Public Policy Considerations

WestConnect will maintain on its website (i) a list of all regional transmission needs identified that are driven by Public Policy Requirements and that are included in the studies for the current regional transmission planning cycle; and (ii) an explanation of why other suggested regional transmission needs driven by Public Policy Requirements will not be evaluated.

5. WestConnect Non-Transmission Alternatives Planning Process

Non-transmission alternatives will be evaluated to determine if they will provide a more efficient or cost-effective solution to an identified regional transmission need. Non-transmission alternatives include, without limitation, technologies that defer or possibly eliminate the need for new and/or upgraded transmission lines, such as distributed generation resources, demand side management (load management, such as energy efficiency and demand response programs), energy storage facilities and smart grid equipment that can help eliminate or mitigate a grid reliability problem, reduce uneconomic grid congestion, and/or help to meet grid needs driven by Public Policy Requirements. Non-transmission alternatives are not eligible for regional cost allocation.

6. Approval of the WestConnect Regional Transmission Plan

The Cost Allocation Subcommittee is to submit, for review and comment, the results of its project benefit/cost analysis and beneficiary determination to the PMC Chair and to the identified beneficiaries of the transmission projects proposed for cost allocation. The PMC shall make available to its Members sufficient information to allow for a reasonable opportunity to comment on the proposed selection. The PMC shall not make a determination on the project benefit/cost analysis and beneficiary determination until it has reviewed all comments. Upon approval of the PMC, the project benefit/cost analysis and beneficiary identifications shall be posted by the PMC on the WestConnect website.

a) CTO Acceptance of Cost Allocation

Each CTO beneficiary will indicate whether it accepts the cost allocation for the project as follows:

(i) A CTO Member, in its sole discretion, may elect to accept a cost allocation for each separate transmission facility for which it is identified as a beneficiary, but only if it notifies the Chair of the PMC in writing of its decision to accept any such cost allocation within sixty (60) calendar days after the benefit/cost analysis is posted by the PMC under this Section III.E.6; provided, however, that the PMC has the discretion to extend the 60-day period when additional time is necessary for an identified beneficiary to complete its internal review and deliberation process before deciding to accept the cost allocation.

(ii) A CTO Member giving notice that it elects to accept a cost allocation for a transmission facility may rescind that notice at any time prior to the end of the sixty (60) day period, or such extended period established in this Section III.E.6.a.i.

(iii) A CTO Member that does not accept a cost allocation for a transmission facility will not be subject to cost allocation for that transmission facility.

The information made available under this Section III.E.6 will be electronically masked and made available pursuant to a process that the PMC reasonably determines is necessary to prevent the disclosure of confidential information or CEII contained in the information.

b) Recalculation of Benefits and Costs for Reliability Projects:

The Cost Allocation Subcommittee will adjust, as necessary, its project benefit/cost analysis and beneficiary identification for any transmission project

that continues to meet the region's criteria for regional cost allocation. For any CTO beneficiary that does not accept cost allocation for a project under this Section 6, such CTO's transmission need(s) which was included within the identification of the region's transmission needs under Sections 1-4 (for which the regional project would have avoided an alternative reliability project in such CTO's local transmission plan) will be removed as a regional transmission need for purposes of justifying a project's approval as a project eligible for inclusion in the Regional Plan for purposes of cost allocation.

c) Recalculation of Benefits and Costs for Public Policy Requirements Projects

The Cost Allocation Subcommittee will adjust, as necessary, its project benefit/cost analysis and beneficiary identification for any transmission project that continues to meet the region's criteria for regional cost allocation. For any CTO beneficiary that does not accept cost allocation for a project under this Section 6, such CTO's transmission need(s) which was included within the identification of the region's transmission needs under Sections 1-4 (for which the regional project would have avoided an alternative Public Policy Requirements project in such CTO's local transmission plan) will be removed as a regional transmission need for purposes of justifying a project's approval as a project eligible for inclusion in the Regional Plan for purposes of cost allocation. This shall include any such CTO's resource needs necessary to comply with Public Policy Requirements.

d) Recalculation of Benefits and Costs for Economic Projects

The Cost Allocation Subcommittee will adjust, as necessary, its project benefit/cost analysis and beneficiary identification for any transmission project that continues to meet the region's criteria for regional cost allocation. For any CTO beneficiary that does not accept cost allocation for a project under this Section 6, such CTO's transmission benefits which were included within the identification of the regional project's economic benefits under Sections 1-4 will be removed as a regional transmission benefit for purposes of justifying a project's approval as a project eligible for inclusion in the Regional Plan for purposes of cost allocation. This shall include the value of any economic benefits determined through the regional transmission plan to accrue to such CTO.

e) Resultant Increase in Beneficiary Cost Allocation

Any regional transmission project that continues to meet the region's benefit/cost and other criteria for regional cost allocation will remain eligible for selection in the Regional Plan for purposes of cost allocation.

f) Approval of the WestConnect Regional Transmission Plan

Upon completion of the process outlined above, the PMC will vote on whether to accept the proposed plan. The Regional Transmission Plan will document why projects were either included or not included in the Regional Transmission Plan. In addition, the Regional Plan is to describe the manner in which the applicable regional cost allocation methodology was applied to each project selected in the Regional Plan for purposes of regional cost allocation. Projects that meet system needs are incorporated into the Regional Plan. Participant funded projects and other types of projects may be included in the Regional Plan; however, those projects are not eligible for regional cost allocation.

7. Reevaluation of the WestConnect Regional Transmission Plan

The PMC is the governing body responsible for deciding whether to reevaluate the Regional Plan to determine if the conditions, facts and/or circumstances relied upon in initially selecting a transmission project for inclusion in the Regional Plan for purposes of cost allocation have changed and, as a result, require reevaluation. Reevaluation will begin within the second planning cycle following the Effective Date. The Regional Plan and any project selected for cost allocation in the Regional Plan, including any local or single-system transmission projects or planned transmission system upgrades to existing facilities selected for purposes of cost allocation, shall be subject to reevaluation in each subsequent planning cycle according to the criteria below. Upon reevaluation, the Regional Plan and any projects selected for purposes of cost allocation in connection therewith may be subject to modification, including the status as a project selected for cost allocation, with any costs reallocated under Section VII as if it were a new project. Only the PMC has the authority to modify the status of a transmission project selected for cost allocation. Conditions that trigger reevaluation are:

- The underlying project characteristics and/or regional or interregional needs change in the Regional Plan. Examples include, but are not limited to: (a) a project's failure to secure a developer, or a developer's failure to maintain the qualifications necessary to utilize regional cost allocation, or (b) a change (increase or decrease) in the identified beneficiaries of a project (which changes may occur through company acquisitions, dissolutions or otherwise), (c) a change in the status of a large load that contributes to the need for a project, or (d) projects affected by a change in law or regulation;
- Projects that are delayed and fail to meet their submitted in-service date by more than two (2) years. This includes projects delayed by funding, regulatory approval, contractual administration, legal proceedings (including arbitration), construction delays, or other delays;
- Projects with significant project changes, including, but not limited to kilovolt (kV), megavolt ampere (MVA), or path rating, number of circuits, number of transmission elements, or interconnection locations; and

- Projects with a change in the calculation of benefits or benefit/cost (B/C) ratio that may affect whether the project selected for inclusion in the Regional Plan for purposes of cost allocation is a more efficient or costeffective regional solution.
    - Example 1: Where an increase in the selected project's costs, including but not limited to, material, labor, environmental mitigation, land acquisition, operations and maintenance, and mitigation for identified transmission system and region, causes the total project costs to increase above the level upon which the project was initially selected for inclusion in the Regional Plan for purposes of cost allocation, the inclusion of the regional project in the Regional Plan will be reevaluated to determine if the regional project continues to satisfy the region's B/C ratio and can be found to be a more efficient or cost-effective solution under current cost information.
    - Example 2: A selected project's benefits may include identification of a reliability benefit in the form of remedying a violation of a Reliability Standard. If the identified beneficiary implements improvements, such as a Remedial Action Scheme, to achieve reliability in compliance with the Reliability Standard at issue, inclusion of the regional project in the regional plan will be reevaluated to determine if the regional project continues to satisfy the region's B/C ratio and can be found to be a more efficient or cost-effective solution under current benefit information.
    - Example 3: Where a project's estimated benefits include benefits in the form of avoided costs (e.g., a regional project's ability to avoid a local project), and the project is not avoided, the inclusion of the regional project in the Regional Plan will be reevaluated to determine if the regional project continues to satisfy the region's B/C ratio and can be found to be a more efficient or cost-effective solution under current facts and circumstances.

Projects selected for purposes of cost allocation will continue to be reevaluated until all the following conditions have been met.

- State and federal approval processes completed and approved (including cost recovery approval under Section 205 of the Federal Power Act as applicable); ▪
- All local, state and federal siting permits have been approved; and
- Major construction contracts have been issued.

When the Regional Plan is reevaluated as a result of any of the conditions triggering reevaluation addressed above, the PMC is to determine if an evaluation of alternative transmission solutions is needed in order to meet an

identified regional need. In doing so, the PMC is to use the same processes and procedures it used in the identification of the original transmission solution to the regional need. If an alternative transmission solution is needed, the incumbent transmission owner may propose one or more solutions that it would implement within its retail distribution service territory or footprint, and if such proposed solution is a transmission facility, the transmission owner may submit the project for possible selection in the Regional Plan for purposes of cost allocation.

Projects not subject to reevaluation include, but are not limited to, the following:

- Local or single system transmission projects that have been identified in individual transmission provider's Transmission Planning (TPL) Reliability Standards compliance assessments to mitigate reliability issues and that have not been proposed for (and selected by the PMC for) regional cost allocation; and
- Planned transmission system upgrades to existing facilities that have not been proposed for (and selected by the PMC for) regional cost allocation.

Projects meeting any of the following criteria as of the Effective Date will also not be subject to reevaluation under the Regional Planning Process:

- Projects of transmission owners who have signed the Planning Participation Agreement and that have received approval through local or state regulatory authorities or board approval;
- Local or single system transmission projects that have been planned and submitted for inclusion in the Regional Plan or exist in the 10-year corporate capital project budgets; and
- Projects that are undergoing review through the WECC Project Coordination and Rating Review Process as of the Effective Date.

8. Confidential or Proprietary Information

Although the Regional Planning Process is open to all stakeholders, stakeholders will be required to comply at all times with certain applicable confidentiality measures necessary to protect confidential information, proprietary information or CEII. From time to time the regional transmission planning studies and/or open stakeholder meetings may include access to base case data that are WECC proprietary data, information classified as CEII by FERC, or other similar confidential or proprietary information. In such cases, access to such confidential or proprietary information shall be limited to only those stakeholders that (i) hold membership in or execute a non-disclosure agreement (NDA) with WECC (*see* APS's Attachment E Hyperlinks List posted on the APS OASIS http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf); (ii) execute a non-disclosure agreement with the applicable WestConnect Planning

Region members; or (iii) are parties to the Planning Participation Agreement, as may be applicable.

Any entity wishing to access confidential information, subject to applicable standards of conduct requirements, discussed in the Regional Planning Process must execute an NDA, and submit it to NDA@westconnect.com. A link to the NDA has been provided (*see* APS's Attachment E Hyperlinks List posted on the APS OASIS http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf).

IV. Recovery of Planning Costs

Unless APS allocates planning-related costs to an individual stakeholder as permitted under the Tariff, all costs incurred by APS related to the local transmission plan process or the subregional or regional planning process shall be included in APS's transmission rate base.

APS's OATT has approved rates for transmission service, which are derived under a formula methodology that is updated annually. Within the costs included in APS's transmission formula rate are both transmission plant and O&M expenses. Planning activities that are performed for the construction of specific transmission facilities in service are capitalized as transmission plant. General planning cost activities, such as regional planning (WECC and WestConnect) and planning under the WestConnect, are recorded as O&M expenses. Therefore, a portion of the transmission planning costs is recovered through the administration of transmission service via the OATT.

V. Dispute Resolution

For purposes of APS's regional planning process, APS and its Eligible Customers, as well as potential customers and stakeholders, participating in the planning process shall follow the following dispute resolution procedures in the event of a dispute concerning Attachment E:

A. WECC. If the dispute is one that is within the scope of the WECC dispute resolution procedures, then such procedures contained in the WECC Business and Governance Guidelines and Policies (*see* APS Attachment E Hyperlinks List at http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf).

B. Non-WECC. For disputes not within the scope of the WECC dispute resolution procedures, the dispute resolution procedures set forth in Section 12 of the APS OATT shall apply, with the added provision that upon agreement of the parties, any dispute that is not resolved by direct negotiation between or among the affected parties within a reasonable period of time, may be referred to mediation (before or during arbitration), and all applicable timelines will be suspended until such time as the mediation process terminates (unless otherwise agreed by the parties).

C. Notwithstanding anything to the contrary in this Section V, any affected party may refer either a procedural or substantive matter within the jurisdiction of FERC to FERC for resolution, for example by filing with FERC a complaint, a request for declaratory order or a change in rate.

For disputes between members of the PMC, the following dispute resolution procedures are to apply:

A. The disputing PMC member(s) must initiate its dispute by providing written notification to the PMC (or a designated sub-committee of the PMC) in accordance with the provisions of the Planning Participation Agreement, in which event the PMC will seek to resolve the dispute through discussion, negotiation and the development of a recommended course of action. The PMC may act to adopt a resolution recommended by its own committee members or sub-committees, or alternatively the disputing parties may act to refer the dispute to arbitration for resolution.

B. A dispute may be referred to arbitration under the governing provisions of the Planning Participation Agreement.

C. The availability of the dispute resolution avenues identified above does not eliminate a disputing PMC member's(s') right under the Federal Power Act to refer either a procedural or substantive matter within the jurisdiction of FERC to FERC for resolution, for example by filing with FERC a complaint, a request for declaratory order or a change in rate. A disputing PMC member first must pursue resolution under the provisions of the Planning Participation Agreement before referring a procedural or substantive matter within the jurisdiction of FERC to FERC for resolution.

All disputes, whether they arise under this Attachment E or between members of the PMC, must be initiated no later than thirty (30) calendar days from the date on which the conduct that gives rise to the dispute occurs.

VI. Coordination at the Western Interconnection Level

APS will coordinate its plan on a west-wide regional basis through WestConnect. WestConnect will coordinate its Regional Plan with TEPPC.

A. Procedures for Regional Planning Project Review

1. WECC Coordination of Reliability Planning

a) WECC develops the Western Interconnection-wide base cases for transmission planning analysis such as power flow, stability and dynamic voltage stability studies. The WECC-approved base cases are used for study purposes by transmission planners, regional transmission planning groups, and other entities that have signed non-disclosure agreements with WECC.

b) WECC maintains a database for reporting the status of all planned projects throughout the Western Interconnection.

c) WECC provides for coordination of planned projects through its Procedures for Regional Planning project review.

d) WECC's path rating process ensures that a new project will have no adverse effect on the existing system.

2. WECC-TEPPC Open Stakeholder Meetings

Western Interconnection-wide economic planning studies are conducted by the WECC-TEPPC in an open stakeholder process that holds region-wide stakeholder meetings on a regular basis. The WECC-TEPPC Transmission Planning Protocol, including the TEPPC procedures for prioritizing and completing regional economic studies, is posted on the WECC website. (*See* APS's Attachment E Hyperlinks List posted on APS's OASIS http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf). APS's participates in the region-wide planning through the WestConnect Planning Region, as appropriate, to ensure data and assumptions are coordinated.

3. Role of WECC-TEPPC

WECC-TEPPC provides two main functions in relation to the APS planning process:

a) Development and Maintenance of the West-Wide Economic Planning Study Database

(1) TEPPC uses publicly available data to compile a database that can be used by a number of economic congestion study tools.

(2) TEPPC's database is publicly available for use in running economic congestion studies. For an interested transmission customer or stakeholder to utilize WECC's Pro-Mod planning model, it must comply with WECC confidentiality requirements.

b) Performance of Economic Planning Studies

TEPPC has a biennial study cycle described in the WECC-TEPPC Transmission Planning Protocol. (*See* APS's Attachment E Hyperlinks List posted on APS's OASIS http://www.oatioasis.com/AZPS/AZPSdocs/Attach_E_Hyperlink_List.pdf), during which it will update databases, develop and approve a study plan that includes studying transmission customer high priority economic study requests as determined by the open TEPPC stakeholder process, perform the approved studies and document the results in a report.

c) Identification of Congested Paths for WestConnect Economic Review

Through TEPPC's economic study process, congested paths may be reviewed and identified as being candidates for economic transmission studies. Upon WECC Board approval of a designation for such a path, the WestConnect Regional Planning Process will review the path for potential economic transmission solutions.

VII. Cost Allocation

A. Local Transmission Projects

Local Transmission Projects are projects located within a Transmission Owner's retail distribution service territory or footprint unless such projects are submitted and selected in the Regional Plan for purposes of cost allocation.[2] A Transmission Owner is not precluded from proposing Local Transmission Projects for inclusion in the Regional Plan for purposes of cost allocation in the Regional Planning Process. A Local Transmission Project that is not submitted or not selected for inclusion in the Regional Plan is not eligible for cost allocation in the Regional Plan, and not subject to the provisions governing regional cost allocation set forth below.

For any transmission project where APS is the sole owner or such project is to be built within or for the benefit of the existing APS system such as local, small and/or reliability transmission projects, APS shall proceed with the project pursuant to its rights and obligations as a Transmission Provider for the local area. Any projects necessary to ensure reliability or that provide economic benefits to the APS system and which fall outside the requirements for inclusion in the Regional Plan for purposes of cost allocation are eligible to be considered Local Transmission Projects.

APS may share ownership, and associated costs, of any new transmission project, based upon mutual agreement between the parties. Such a joint ownership arrangement may arise because of existing joint ownership of facilities in the area of the new facilities, overlapping service territories, or other relevant considerations.

APS will utilize a case-by-case approach to allocate costs for new transmission projects. This approach will be based on the following principles:

1. Open Season Solicitation of Interest

   For any transmission project identified in an APS reliability or economic planning study in which APS is the project sponsor, APS may elect to provide an "open season" solicitation of interest to secure additional project participants. Upon a determination by APS to hold an open season solicitation of interest for a transmission project, APS will:

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[2] The reference to a public utility transmission owner's "footprint" refers to the electrical footprint of the transmission owner (i.e., the location of that transmission owner's electrical assets) and not necessarily the physical/spatial footprint. Where a transmission owner within the WestConnect Planning Region is a transmissiononly company with no retail distribution service territory, the term, footprint, would refer to the location of the transmission facilities of such transmission-only company.

a) Announce and solicit interest in the project through informational meetings, its website and/or other means of dissemination as appropriate.

b) Hold meetings with interested parties and meetings with public utility staffs from potentially affected states.

c) Post information via WECC's planning project review reports.

d) Develop the initial transmission project specifications, the initial cost estimates and potential transmission line routes; guide negotiations and assist interested parties to determine cost responsibility for initial studies; guide the project through the applicable line siting processes; develop final project specifications and costs; obtain commitments from participants for final project cost shares; and secure execution of construction and operating agreements.

2. APS Coordination within a Solicitation of Interest Process

APS, whether as a project sponsor or a participant, will coordinate as necessary with any other participant or sponsor, as the case may be, to integrate into APS's transmission project plan any other planned project on or interconnected with APS's transmission system.

3. APS Projects without a Solicitation of Interest Process

APS may elect to proceed with small and/or reliability transmission projects without an open season solicitation of interest, in which case APS will proceed with the project pursuant to its rights and obligations as a Transmission Provider.

4. Allocation of Costs

a) Proportional Allocation

For any local transmission project entered into pursuant to an open season solicitation process, project costs and associated transmission rights will generally be allocated proportionally to project participants' respective ownership shares subject to a negotiated participation agreement. In the event the open season process results in a single participant, the full cost and transmission rights will be allocated to that participant. Nothing in this section precludes project participants from utilizing another cost allocation methodology, provided all project participants agree to the alternative.

b) Economic Benefits or Congestion Relief

For a local transmission project wholly within the APS local transmission system that is undertaken for economic reasons or congestion relief at the request of a Customer, the project costs will be allocated to the Customer.

c) APS Rate Recovery

Notwithstanding the foregoing provisions, APS will not assume cost responsibility for any local transmission project if the cost of the project is not reasonably expected to be recoverable in its retail and/or wholesale rates.

d) Exclusions

The cost for transmission projects undertaken in connection with requests for interconnection or transmission service on the APS transmission system, which are governed by existing cost allocation methods within APS's Tariff, will continue to be so governed and will not be subject to the principles of this Section VII.

B. Regional Transmission Projects

For any project determined by the PMC to be eligible for regional cost allocation, project costs will be allocated proportionally to those entities determined by the PMC, as shown in the Regional Plan, to be beneficiaries in the WestConnect Planning Region, as identified in this Attachment E subject to the processes set forth in Sections III through VII.

The PMC, with input from the CAS, is to determine whether a project is eligible for regional cost allocation, and assesses the project's costs against its benefits in accordance with the following factors:

- Benefits and beneficiaries will be identified before cost allocation methods are applied.
- Cost assignments must be commensurate with estimated benefits.
- Those that receive no benefits must not be involuntarily assigned costs.
- A benefit-to-cost threshold (B/C) of not more than 1.25 shall be used, as applicable, so that projects with significant benefits are not excluded, as applicable.
- Costs must be allocated solely within the WestConnect Planning Region, unless other regions or entities voluntarily assume costs.
- Costs for upgrades on neighboring transmission systems or other planning regions that are (i) required to be mitigated by the WECC Path Rating process, FERC tariff requirements, or NERC Reliability Standards, or (ii)

negotiated among interconnected parties will be included in the total project costs and used in the calculation of B/C ratios.

- Cost allocation method and data shall be transparent and with adequate documentation.
- Different cost allocation methods may be used for different types of projects.

Specifically, the PMC will consider the following projects eligible for cost allocation consideration as further described below based on specified criteria:

- Reliability Projects;
- Economic or Congestion Relief Projects; or
- Public Policy Projects.

Only projects that fall within one or more of these three categories and satisfy the cost-to-benefit analyses and other requirements, as specified herein, are eligible for cost allocation in the WestConnect Planning Region. APS encourages all interested stakeholders to consult the Business Practice Manual for additional details regarding the assessment for eligibility for regional cost allocation. Summary provisions are provided below:[3]

1. Allocation of Costs for Reliability Projects

In order to allocate costs to transmission owners for system reliability improvements that are necessary for their systems to meet the NERC Transmission Planning Standards, the WestConnect cost allocation procedure will allocate costs for system reliability improvements only when a system improvement is required to comply with the NERC Transmission Planning Standards during the planning horizon.

All components of a Transmission Owner's local transmission plan will be included in the Regional Plan and will be considered Local Transmission Projects that are not eligible for regional cost allocation. A system performance analysis will be performed on the collective plans to ensure the combined plans adhere to all relevant NERC Transmission Planning Standards, and stakeholders will be afforded an opportunity to propose projects that are more efficient or cost-effective than components of multiple Transmission Owner local plans as outlined in Section III.E, above.

Should a reliability issue be identified in the review of the included local transmission plan, the project necessary to address that reliability issue will be included in the Regional Plan and the cost will be shared by the utilities whose load contributed to the need for the project.

[3] References to "transmission owners" in the cost allocation provisions are to transmission owners for whom the WestConnect Planning Management Committee is performing the function of regional transmission planning. At present, those transmission owners are TOLSO members.

Should multiple utilities have separate reliability issues that are addressed more efficiently or cost-effectively by a single regional project, that regional project will be approved for selection in the Regional Plan and the cost will be shared by those transmission owners in proportion to the cost of alternatives that could be pursued by the individual transmission owners to resolve the reliability issue. The ultimate responsibility for maintaining system reliability and compliance with NERC Transmission Planning Standards rests with each transmission owner.

The costs for regional reliability projects will be allocated according to the following equation:

(1 divided by 2) times 3 equals 4

Where:

1 is the cost of local reliability upgrades necessary to avoid construction of the regional reliability project in the relevant transmission owner's retail distribution service territory or footprint

2 is the total cost of local reliability upgrades in the combination of transmission owners' retail distribution service territories or footprints necessary to avoid construction of the regional reliability project

3 is the total cost of the regional reliability project

4 is the total cost allocated to the relevant transmission owner's retail distribution service territory or footprint

The manner in which the PMC applied this methodology to allocate the costs of each regional reliability project shall be described in the Regional Plan.

2. Allocation of Costs for Economic Projects

Cost allocation for economic projects associated with congestion relief that provide for more economic operation of the system will be based on the calculation of economic benefits that each transmission owner system will receive. Cost allocation for economic projects shall include scenario analyses to ensure that benefits will actually be received by beneficiaries with relative certainty. Projects for which benefits and beneficiaries are highly uncertain and vary beyond reasonable parameters based on assumptions about future conditions will not be selected for cost allocation.

In order for a project to be considered economically-justified and receive cost allocation associated with economic projects, the project must have a B/C ratio that is greater than 1.0 under each reasonable scenario evaluated and have an average ratio of at least 1.25 under all reasonable scenarios evaluated. Costs will be allocated on the basis of the average of all scenarios evaluated. The B/C ratio shall be calculated by the PMC. This B/C ratio shall be determined by calculating

the aggregate load-weighted benefit-to-cost ratio for each transmission system in the WestConnect Planning Region. The benefits methodology laid out below ensures that the entities that benefit the most from the completion of an economic project are allocated costs commensurate with those project benefits.

The cost of any project that has an aggregate 1.25 B/C ratio or greater will be divided among the transmission owners that show a benefit based on the amount of benefits calculated to each respective transmission owner. For example, if a $100 million dollar project is shown to have $150 million in economic benefit, the entities for which the economic benefit is incurred will be determined. The cost of the project will then be allocated to those entities, based on the extent of each entity's economic benefits relative to the total project benefits. This will ensure that each entity that is allocated cost has a B/C ratio equal to the total project B/C ratio. For example:

- Project with $150 million in economic benefit and $100 million in cost
    - Company 1 has $90 million in benefits; Company 2 has $60 million in benefits
    - Company 1 allocation: 90/150 (100) = $60 million
    - Company 1 B/C ratio: 90/60 = 1.5
    - Company 2 allocation: 60/150 (100) = $40 million
    - Company 2 B/C ratio: 60/40 = 1.5

Other than through the reevaluation process described in Section III.E.7 of this Attachment E, the benefits and costs used in the evaluation shall only be calculated during the planning period and shall be compared on a net present value basis.

The WestConnect economic planning process shall consider production cost savings and reduction in reserve sharing requirements as economic benefits capable of contributing to the determination that a project is economically justified for cost allocation. Production cost savings are to be determined by the PMC performing a product cost simulation to model the impact of the transmission project on production costs and congestion. Production cost savings will be calculated as the reduction in production costs between a production cost simulation with the project included compared to a simulation without the project. Reductions in reserve sharing requirements are to be determined by the PMC indentifying a transmission project's impact on the reserve requirements of individual transmission systems, and not on the basis of the project's collective impact on a reserve sharing group, as a whole. The production cost models are to appropriately consider the hurdle rates between transmission systems. The following production cost principles may be applied:

- The production cost savings from a project must be present in each year from the project in-service date and extending out at least ten (10) years.
- Cost savings must be expressed in present-value dollars and should consider the impact of various fuel cost forecasts.

- The production cost study must account for contracts and agreements related to the use of the transmission system (this refers to paths in systems that might be contractually limited but not reliability limited).
- The production cost study must account for contracts and agreements related to the access and use of generation (this refers to generators that might only use spot purchases for fuel rather than firm purchases, or generation that has been designated as network resources for some entities and thus cannot be accessed at will by non-owners).

Access by stakeholders to the PMC's application of its regional cost allocation method for a specific economic transmission project is available in several ways: First, stakeholders that are members of the PMC will have firsthand knowledge of the way in which the regional method was applied to a particular project because the PMC is responsible for performing the application of the regional cost allocation method. Second, stakeholders that choose not to become members of the PMC may access such information through the WestConnect regional stakeholder process. See Section III.B of this Attachment E. Third, the manner in which the PMC applied this methodology to allocate the costs of each economic project shall be described in the Regional Plan.

In determining which entities will be allocated costs for economic projects, WestConnect will compare the economic value of benefits received by an entity with the cost of the project to ensure that each entity allocated cost receives a benefit/cost ratio equal to the aggregate load-weighted benefit-to-cost ratio. These costs allocated to each company will be calculated based on the following equation:

(1 divided by 2) times 3 equals 4

Where:

1	is the total projected present value of economic benefits for the relevant transmission owner
2	is the total projected present value of economic benefits for the entire project
3	is the total cost of the economic project
4	is the total cost allocated to the relevant transmission owner

Any transmission owner with benefits less than or equal to one percent of total project benefits will be excluded from cost allocation. Where a project satisfies the B/C ratio, and is determined to provide benefits less than or equal to one percent of total project benefits to an identified transmission owner, such benefits will be re-allocated to all other identified beneficiaries on a pro rata basis, in relation to each entity's share of total project benefits.

3. Allocation of Costs for Public Policy Projects

Any transmission system additions that arise from Public Policy Requirements shall be included in the system models used for the WestConnect transmission system studies. Further, any additional system needs that arise from proposed public policy shall be reported by each entity for its own service territory. Decisions on the inclusion of those needs shall be made during the consideration and approval of the system models. Transmission needs driven by Public Policy Requirements will be included in the evaluation of reliability and economic projects.

Except for projects proposed through a transmission owner's local planning process, arising out of a local need for transmission infrastructure to satisfy Public Policy Requirements that are not submitted as projects proposed for cost allocation (which are addressed in Section II of this Attachment E), any projects arising out of a regional need for transmission infrastructure to satisfy the Public Policy Requirements shall be considered public policy projects eligible for evaluation in the Regional Planning Process.

Stakeholders may participate in identifying regional transmission needs driven by Public Policy Requirements. After seeking the input of stakeholders pursuant to the stakeholder participation provisions of Section III, the PMC is to determine whether to move forward with the identification of a regional solution to a particular regional need driven by Public Policy Requirements. Stakeholders may participate in identifying a regional solution to a regional need driven by Public Policy Requirements pursuant to the stakeholder participation provisions of Section III, or through membership on the PMC itself. After seeking the input of stakeholders, the PMC is to determine whether to select a particular regional solution in the regional transmission plan for purposes of cost allocation. The identification of beneficiaries of these projects shall be the entities that will access the resources enabled by the project in order to meet their Public Policy Requirements.

If an entity accesses resources that were enabled by a prior public policy project, that entity will need to either share in its relative share of the costs of that public policy project or acquire sufficient transmission service rights to move the resources to its load with the determination left up to the entity or entities that were originally allocated the cost for the public policy project.

The costs for public policy projects will be allocated according to the following equation:

(1 divided by 2) times 3 equals 4

Where:

1 is the number of megawatts of public policy resources enabled by the public policy project for the entity in question
2 is the total number of megawatts of public policy resources enabled by the public policy project
3 is the total project cost
4 is the cost for the public policy project allocated to the entity in question

The process to interconnect individual generation resources is provided for under the generator interconnection section of each utility's OATT and not under this process.

Requests for transmission service that originate in a member's system and terminate at the border shall be handled through that member's OATT. Regional transmission needs necessary to meet Public Policy Requirements will be addressed through the Public Policy Requirements section of the Regional Planning Process.

The manner in which WestConnect applied this methodology to each public policy project shall be described in the Regional Transmission Plan.

4. Combination of Benefits

In developing a more efficient or cost-effective plan, it is possible for the plan to jointly consider multiple types of benefits when approving projects for inclusion in the Regional Plan. The determination to consider multiple types of benefits for a particular project shall be made through the WestConnect stakeholder process, in which interested stakeholders are given an opportunity to provide input as set forth in Section III of this Attachment E. In determining whether a project would provide multiple benefits, the PMC is to categorize the benefits as (a) necessary to meet NERC Transmission Planning Reliability Standards (reliability); (b) achieving production cost savings or a reduction in reserve sharing requirements (economic); or (c) necessary to meet transmission needs driven by Public Policy Requirements, as applicable, using the methods set forth in this Attachment E. The PMC will identify all three categories of benefits in its regional cost allocation process. If a project cannot pass the cost allocation threshold for any one of the three benefit categories, alone (reliability, economic or public policy), the sum of benefits from each benefit category may be considered.

- With respect to a reliability-driven regional transmission project, the quantified benefits of the project to each identified beneficiary must be greater, by a margin of 1.25 or more to 1, than the result of the equation identified in Section B.1 above (where the result is shown as item 4 in the formula).

- With respect to an economic-driven regional transmission project, the quantified benefits of the project to each identified beneficiary must be greater than the project's cost to each beneficiary under each reasonable scenario evaluated, and must yield an average ratio of at least 1.25 to 1 under all reasonable scenarios evaluated, as described in Section B.2 above.
- With respect to a public policy requirements-driven regional transmission project, the quantified benefits of the project to each identified beneficiary must be greater, by a margin of 1.25 or more to 1, than the result of the equation identified in Section B.3 above (where the result is shown as item 4 in the formula).

If a single regional transmission project is determined to provide benefits in more than one category, but does not meet the cost threshold for any single category, the PMC may consider the sum of benefits from each benefit category to determine if the regional transmission project provides, in total, benefits per beneficiary that meet or exceed the region's 1.25 to 1 benefit to cost ratio. To illustrate, consider the following example where a regional project developed to provide public policy requirement benefits might also provide for economic benefits to the same beneficiaries:

A regional project submittal has undergone analysis for its quantifiable benefits and costs and is determined to cost $100 million and produce benefits to identified beneficiaries in two categories: economic benefits of $101 million (on average, under all economic scenarios quantified), and public policy requirement benefits of $70 million. The project is found to fail the cost threshold for each category, individually, but when the total benefits are combined and the project's total regional benefits per beneficiary are weighed against the project's total costs per beneficiary, the project can be found to meet or surpass the region's 1.25 to 1 benefit to cost ratio per beneficiary:

- The benefits to Beneficiary A of pursuing the regional solution (60% of the regional project's total $171 million in benefits) = $102.6 million. When $102.6 million in project benefits is compared against $60 million in project costs (60% of project costs), it yields a B/C ratio of 1.71 to 1 for Beneficiary A.

- The benefits to Beneficiary B of pursuing the regional solution (40% of the regional project's total $171 million in benefits) = $68.4 million. When $68.4 million in project benefits is compared against $40 million in project costs (40% of project costs), it yields a B/C ratio of 1.71 to 1 for Beneficiary B.

Even though the regional project does not pass the cost allocation threshold in any individual benefit category, the PMC may consider the sum of the project's benefits in all categories.

For those regional projects that satisfy the region's cost allocation threshold, the PMC then will continue its evaluation process by considering whether the regional project meets the region's identified reliability, economic and Public Policy Requirements-driven needs more efficiently or cost-effectively than solutions identified by individual transmission providers in their local transmission planning processes.

The costs for projects that rely upon multiple types of benefits to secure inclusion in the Regional Plan for purposes of cost allocation will be shared according to the amount of cost that is justified by each type of benefits.

5. Allocation of Ownership and Capacity Rights

An Eligible Transmission Developer that is subject to the Commission's jurisdiction under section 205 of the Federal Power Act may not recover project costs from identified beneficiaries in the WestConnect Planning Region without securing approval for project cost recovery from FERC through a separate proceeding brought by the Eligible Transmission Developer under Section 205 of the Federal Power Act. In no event will identified beneficiaries in the WestConnect Planning Region from whom project costs are sought to be recovered under Section 205 be denied either transmission transfer capability or ownership rights proportionate to their allocated costs, as determined by FERC in such proceeding. An Eligible Transmission Developer that is not subject to the Commission's jurisdiction under section 205 of the Federal Power Act may seek cost recovery from identified beneficiaries in the WestConnect Planning Region either: (a) through bilateral agreements that are voluntarily entered into between such Eligible Transmission Developer and the applicable identified beneficiaries; or (b) by obtaining approval from FERC for project cost recovery pursuant to any other applicable section of the Federal Power Act.

If a project beneficiary receives transmission transfer capability on the project in exchange for transmission service payments, such project beneficiary may resell the transfer capability. Alternatively, a project beneficiary could seek to make a direct capital contribution to the project construction cost (in lieu of making transmission service payments) in which case, the project beneficiary would instead receive an ownership percentage in proportion to their capital contribution (Ownership Proposal). This Ownership Proposal does not create a right of first refusal for transmission beneficiaries.

An ownership alternative will only be pursued if the Eligible Transmission Developer agrees. The Eligible Transmission Developer and the beneficiaries will enter into contract negotiations to address the many details regarding the

capital funding mechanics and timing, as well as other details, such as defining (as between the Eligible Transmission Developer, whether a nonincumbent or incumbent transmission developer, and those receiving ownership interests) responsibility for operations and maintenance, administrative tasks, compliance with governing laws and regulations, etc. These negotiations will take place at arm's length, without any one party having undue leverage over the other.

A transmission project beneficiary should not be expected to pay for its benefits from the project twice: once through a capital contribution, and again through transmission service payments. The Ownership Proposal permits an ownership share in a project that is in the same proportion to a beneficiary's allocable costs, which costs will have been allocated roughly commensurate with the benefits to be gained from the project. This will allow the beneficiary to earn a return on its investment. In addition, it allows those beneficiaries that may not necessarily benefit from additional transfer capability on a new transmission project, whether due to lack of contiguity to the new facilities or otherwise, to realize the benefits through an ownership option.

Any transmission project participant that is identified as a beneficiary of the project might be permitted by the Eligible Transmission Developer to contribute capital (in lieu of transmission service payments) and receive a proportionate share of ownership rights in the transmission project. The Ownership Proposal affords an identified beneficiary who contributes toward the project costs the opportunity to obtain an ownership interest in lieu of an allocated share of the project costs through transmission service payments for transfer capability on the project; it does not, however, confer a right to invest capital in a project. The Ownership Proposal merely identifies that, to the extent it is agreed among the parties that capital may be contributed toward a transmission project's construction, a proportionate share of ownership rights will follow.

Nothing in this Attachment E with respect to Order No. 1000 cost allocation imposes any new service on beneficiaries. Similarly, nothing in this Attachment E with respect to Order No. 1000 cost allocation imposes on an Eligible Transmission Developer an obligation to become a provider of transmission services to identified beneficiaries simply as a result of a project's having been selected in the Regional Plan for purposes of cost allocation; provided, however, if that Eligible Transmission Developer seeks authorization to provide transmission services to beneficiaries or others, and to charge rates or otherwise recover costs from beneficiaries or others associated with any transmission services it were to propose, it must do so by contract and/or under separate proceedings under the Federal Power Act. The purpose of this Section VII.B.5 is to (a) provide an option to a project developer to negotiate ownership rights in the project with identified beneficiaries, if both the developer and the identified beneficiaries mutually desire to do so, and (b) specify that, although Order No. 1000 cost allocation does not impose any new service on beneficiaries, identified beneficiaries have the opportunity to discuss with the project developer the

potential for entering into transmission service agreements for transmission capacity rights in the project, and (c) ensure that Order No. 1000 cost allocation does not mean that a project developer may recover project costs from identified beneficiaries without providing transmission transfer capability or ownership rights, and without securing approval for project cost recovery by contract and/or under a separate proceeding under the Federal Power Act.

If an Eligible Transmission Developer is not subject to FERC's jurisdiction under section 205 of the Federal Power Act, the Eligible Transmission Developer would have to seek to recover project costs from identified beneficiaries in the WestConnect Planning Region either: (a) through bilateral agreements that are voluntarily entered into between such Eligible Transmission Developer and the applicable identified beneficiaries; or (b) by obtaining approval from FERC for project cost recovery pursuant to any other applicable section of the Federal Power Act.

6. Project Development Schedule

The WestConnect PMC will not be responsible for managing the development of any project selected for inclusion in the Regional Plan. However, after having selected a project in the Regional Plan, the PMC will monitor the status of project's development. If a transmission facility is selected for inclusion in the Regional Plan for purposes of cost allocation, the transmission developer of that transmission facility must submit a development schedule that indicates the required steps, such as the granting of state approvals, necessary to develop and construct the transmission facility such that it meets the regional transmission needs of the WestConnect Planning Region. As part of the ongoing monitoring of the status of the regional transmission project once it is selected, the transmission owners and providers in the WestConnect Planning Region will establish a date by which the steps required to construct must be achieved that are tied to when construction must begin to timely meet the need that the project is selected to address. If such required steps have not been achieved by those dates, then the transmission owners and providers in the WestConnect Planning Region may remove the transmission project from the selected category and proceed with reevaluating the Regional Plan to seek an alternative solution.

7. Economic Benefits or Congestion Relief

For a transmission project wholly within the Transmission Provider's local transmission system that is undertaken for economic reasons or congestion relief at the request of a Requester, the project costs will be allocated to the Requester.

8. APS Rate Recovery

Notwithstanding the foregoing provisions, APS will not assume cost responsibility for any transmission project if the cost of the project is not

reasonably expected to be recoverable in APS's retail and/or wholesale transmission rates.

9. Selection of a Transmission Developer for Sponsored and Unsponsored Projects

For any project (sponsored or unsponsored) determined by the PMC to be eligible for regional cost allocation and selected in the Regional Plan for purposes of cost allocation, the PMC shall select a transmission project developer according to the processes set forth in this section, provided that selection according to those processes does not violate applicable law where the transmission facility is to be built that otherwise prescribes the entity that shall develop and build the project. Any entity that, pursuant to applicable law for the location where the facilities are to be built, shall or chooses to develop and build the project must submit a project development schedule as required by Section VII.B.6 of this Attachment E, within the timeframe directed by the Business Practice Manual, not to exceed the time period for request for proposal responses.

For any project determined by the PMC to be eligible for regional cost allocation and selected in the Regional Plan for purposes of cost allocation, either sponsored by a transmission developer or unsponsored, that is not subject to the foregoing paragraph, the PMC shall upon posting the selected projects, issue a request for information to all Eligible Transmission Developers under Section III.D.2 of this Attachment E soliciting their interest in developing the project(s). Each transmission developer shall respond to the request for information indicating its interest in developing the project. The PMC shall post on the WestConnect website the list of all transmission developers who responded with an expression of interest in developing the project(s). The PMC shall provide to each developer indicating interest in developing a project a request for proposals for the identified project(s) with a specified date of return for all proposals.

Each transmission developer, or partnership or joint ventures of transmission developers, shall submit information demonstrating its ability to finance, own and construct the project consistent with the guidelines for doing so set forth in the WestConnect Business Practices Manual. The PMC shall assess the submissions according to the following process and criteria:

The evaluation of the request for proposals will be at the direction of the PMC, and will involve representatives of the beneficiaries of the proposed project(s). The evaluation will include, but not be limited to, an assessment of the following evidence and criteria.

- General qualifications of the bidding entity;
- Evidence of financing/financial creditworthiness, including
  - financing plan (sources debt and equity), including construction financing and long-term financing
  - ability to finance restoration/forced outages

    - credit ratings
    - financial statements;
- Safety program and experience;
- Project description, including
    - detailed proposed project description and route
    - design parameters
    - design life of equipment and facilities
    - description of alternative project variations;
- Development of project, including
    - experience with and current capabilities and plan for obtaining state and local licenses, permits, and approvals
    - experience with and current capabilities and plan for obtaining any federal licenses and permits
    - experience with and expertise and plan for obtaining rights of way
    - development schedule
    - development budget;
- Construction, including
    - experience with and current capabilities and plan for project construction
    - third party contractors
    - procurement plan
    - project management (cost and schedule control)
    - construction schedule
    - construction budget (including all construction and period costs;
- Operations, including
    - experience with and current capabilities and plan for project operation
    - experience with and current capabilities and plan for NERC compliance
    - security program and plan
    - storm/outage response plan
    - reliability of facilities already in operation;
- Maintenance capabilities and plans for project maintenance (including staffing, equipment, crew training, and facilities);
- Project cost to beneficiaries, including
    - total project cost (development, construction, financing, and other non-O&M costs)
    - operation and maintenance costs, including evaluation of electrical losses
    - revenue requirement, including proposed cost of equity, FERC incentives, proposed cost of debt and total revenue requirement calculation
    - present value cost of project to beneficiaries.

The PMC shall notify the developers of its determination as to which developer(s) it selected to develop the project(s) responsive to the request for proposal. The selected developer(s) must submit a project development schedule as required by Section VII.B.6 of this Attachment E.

If the PMC determines that a sponsored or unsponsored project fails to secure a developer through the process outlined in this section, the PMC shall remove the project from the Regional Plan.

After the PMC makes a determination, it will post a document on the WestConnect website within 60 days explaining the PMC's determination in selecting a particular transmission developer for a specific transmission project. The information will explain (1) the reasons why a particular transmission developer was selected or not selected, and, if applicable, (2) the reasons why a transmission project failed to secure a transmission developer.

10. No Obligation to Construct

The WestConnect Regional Planning Process is intended to determine and recommend the more efficient or cost-effective transmission solutions for the WestConnect Planning Region. After the Regional Plan is approved, due to the uncertainty in the Regional Planning Process and the need to address cost recovery issues, the Regional Planning Process shall not obligate any entity to construct, nor obligate any entity to commit to construct, any facilities, including any transmission facilities, regardless of whether such facilities are included in any plan. Nothing in this Attachment E, the Business Practice Manual or the Planning Participation Agreement, or any cost allocation shall (1) determine any transmission service to be received by, or any transmission usage by, any entity; (2) obligate any entity to purchase or pay for, or obligate any entity to commit to purchase or pay for, any transmission service or usage; or (3) entitle any entity to recover for any transmission service or usage or to recover from any entity any cost of any transmission facilities, regardless of whether such transmission facilities are included in any plan. Without limiting the generality of the foregoing, nothing in this Attachment E, the Business Practice Manual or the Planning Participation Agreement with respect to regional cost allocation shall preclude any WestConnect Planning Region member from satisfying its statutory obligations.

11. Binding Order No. 1000 Cost Allocation Methods

Order No. 1000 cost allocation methods as set forth in Section VII of this Attachment E are binding on identified beneficiaries in the WestConnect Planning Region, without prejudice to the following rights and obligations: (1) the right of a CTO, at its sole discretion, to decide whether to accept a regional cost allocation in accordance with Section III.E.6; (2) the right and obligation of the PMC to reevaluate a transmission facility previously selected for inclusion in the regional

plan for purposes of Order No. 1000 cost allocation under Section III.E.7 of this Attachment E; (3) the right and obligation of a Eligible Transmission Developer to make a filing under Section 205 or other applicable provision of the Federal Power Act in order to seek approval from the Commission to recover the costs of any transmission facility selected for inclusion in the regional plan for purposes of Order No. 1000 cost allocation; (4) the right and obligation of any interested person to intervene and be heard before the Commission in any Section 205 or other applicable provision of proceeding initiated by an Eligible Transmission Developer, including the right of any identified beneficiaries of the transmission facility to support or protest the filing and to present evidence on whether the proposed cost recovery is or is not just and reasonable; and (5) the right and obligation of the Commission to act under Section 205 or other applicable provisions of the Federal Power Act to approve or deny any cost recovery sought by an Eligible Transmission Developer for a transmission facility selected in the regional plan for purposes of Order No. 1000 cost allocation.[4]

12. Impacts of a Regional Project on Neighboring Planning Regions

The PMC is to study the impact(s) of a regional transmission project on neighboring planning regions, including the resulting need, if any, for mitigation measures in such neighboring planning regions. If the PMC finds that a regional transmission project in the WestConnect Planning Region causes impacts on a neighboring planning region that requires mitigation (a) by the WECC Path Rating Process, (b) under FERC OATT requirements, (c) under NERC Reliability Standards requirements, and/or (d) under any negotiated arrangement between the interconnected entities, the PMC is to include the costs of any such mitigation measures into the regional transmission project's total project costs for purposes of determining the project's eligibility for regional cost allocation under the procedures identified in Section VII.B of this Attachment E, including application of the region's benefits-to-costs analysis.

The WestConnect Planning Region will not be responsible for compensating a neighboring planning region, transmission provider, transmission owner, Balancing Area Authority, or any other entity, for the costs of any required mitigation measures, or other consequences, on their systems associated with a regional transmission project in the WestConnect Planning Region, whether identified by the PMC or the neighboring system(s). The PMC does not direct the construction of transmission facilities, does not operate transmission facilities or provide transmission services, and does not charge or collect revenues for the performance of any transmission or other services. Therefore, in agreeing to

[4] An Eligible Transmission Developer may not be subject to the Commission's Section 205 jurisdiction. See Section VII.5. If an Eligible Transmission Developer is not subject to the Commission's jurisdiction under section 205 of the Federal Power Act, the Eligible Transmission Developer would have to seek to recover project costs from identified beneficiaries in the WestConnect Planning Region either: (a) through bilateral agreements that are voluntarily entered into between such Eligible Transmission Developer and the applicable identified beneficiaries; or (b) by obtaining approval from the Commission for project cost recovery pursuant to any other applicable section of the Federal Power Act.

study the impacts of a regional transmission facility on neighboring planning regions, the PMC is not agreeing to bear the costs of any mitigation measures it identifies. However, the PMC will request of any developer of a regional transmission project selected in the Regional Plan for purposes of cost allocation that the developer design and build its project to mitigate the project's identified impacts on neighboring planning regions. If the project is identified as impacting a neighboring planning region that accords less favorable mitigation treatment to the WestConnect Planning Region than the WestConnect Planning Region accords to it, the PMC will request that the project developer reciprocate by using the lesser of (i) the neighboring region's mitigation treatment applicable to the mitigation of impacts of its own regional projects on the WestConnect Planning Region, or (ii) the PMC's mitigation treatment set forth above in sub-sections (a) through (d).

13. Exclusions

The cost for transmission projects undertaken in connection with requests for generation interconnection or transmission service on the APS transmission system, which are governed by existing cost allocation methods within the OATT, will continue to be so governed and will not be subject to the principles of this Section VII.

In the event of an inconsistency between this Attachment E and the load interconnection cost allocation policy, this Attachment E shall control.

VIII. Interregional Coordination and Cost Allocation

This Section VIII of Attachment E sets forth common provisions, which are to be adopted by or for each Planning Region and which facilitate the implementation of Order 1000 interregional provisions. WestConnect is to conduct the activities and processes set forth in this Section VIII of Attachment E in accordance with the provisions of this Section VIII of Attachment E and the other provisions of this Attachment E.

Nothing in this Section VIII will preclude any transmission owner or transmission provider from taking any action it deems necessary or appropriate with respect to any transmission facilities it needs to comply with any local, state, or federal requirements.

Any Interregional Cost Allocation regarding any ITP is solely for the purpose of developing information to be used in the regional planning process of each Relevant Planning Region, including the regional cost allocation process and methodologies of each such Relevant Planning Region.

References in this Section VIII to any transmission planning processes, including cost allocations, are references to transmission planning processes pursuant to Order 1000.

A. Definitions

The following capitalized terms where used in this Section VIII of Attachment E, are defined as follows:

Annual Interregional Coordination Meeting: shall have the meaning set forth in Section C below.

Annual Interregional Information: shall have the meaning set forth in Section B below.

Interregional Cost Allocation: means the assignment of ITP costs between or among Planning Regions as described in Section F.2 below.

Interregional Transmission Project ("ITP"): means a proposed new transmission project that would directly interconnect electrically to existing or planned transmission facilities in two or more Planning Regions and that is submitted into the regional transmission planning processes of all such Planning Regions in accordance with Section D.1.

Order 1000 Common Interregional Coordination and Cost Allocation Tariff Language: means this Section VIII, which relates to Order 1000 interregional provisions.

Planning Region: means each of the following Order 1000 transmission planning regions insofar as they are within the Western Interconnection: California Independent

System Operator Corporation, ColumbiaGrid, Northern Tier Transmission Group, and WestConnect.

Relevant Planning Regions: means, with respect to an ITP, the Planning Regions that would directly interconnect electrically with such ITP, unless and until such time as a Relevant Planning Region determines that such ITP will not meet any of its regional transmission needs in accordance with Section D.2, at which time it shall no longer be considered a Relevant Planning Region.

B. Annual Interregional Information Exchange

Annually, prior to the Annual Interregional Coordination Meeting, WestConnect is to make available by posting on its website or otherwise provide to each of the other Planning Regions the following information, to the extent such information is available in its regional transmission planning process, relating to regional transmission needs in WestConnect's transmission planning region and potential solutions thereto:

1. study plan or underlying information that would typically be included in a study plan, such as:

    (a) identification of base cases;

    (b) planning study assumptions; and

    (c) study methodologies;

2. initial study reports (or system assessments); and

3. regional transmission plan

(collectively referred to as "Annual Interregional Information").

WestConnect is to post its Annual Interregional Information on its website according to its regional transmission planning process. Each other Planning Region may use in its regional transmission planning process WestConnect's Annual Interregional Information. WestConnect may use in its regional transmission planning process Annual Interregional Information provided by other Planning Regions.

WestConnect is not required to make available or otherwise provide to any other Planning Region (i) any information not developed by WestConnect in the ordinary course of its regional transmission planning process, (ii) any Annual Interregional Information to be provided by any other Planning Region with respect to such other Planning Region, or (iii) any information if WestConnect reasonably determines that making such information available or otherwise providing such information would

constitute a violation of the Commission's Standards of Conduct or any other legal requirement. Annual Interregional Information made available or otherwise provided by WestConnect shall be subject to applicable confidentiality and CEII restrictions and other applicable laws, under WestConnect's regional transmission planning process. Any Annual Interregional Information made available or otherwise provided by WestConnect shall be "AS IS" and any reliance by the receiving Planning Region on such Annual Interregional Information is at its own risk, without warranty and without any liability of WestConnect or any of the members of WestConnect, including any liability for (a) any errors or omissions in such Annual Interregional Information, or (b) any delay or failure to provide such Annual Interregional Information.

C. Annual Interregional Coordination Meeting

WestConnect is to participate in an Annual Interregional Coordination Meeting with the other Planning Regions. WestConnect is to host the Annual Interregional Coordination Meeting in turn with the other Planning Regions, and is to seek to convene such meeting in February, but not later than March 31st. The Annual Interregional Coordination Meeting is to be open to stakeholders. WestConnect is to provide notice of the meeting to its stakeholders in accordance with its regional transmission planning process.

At the Annual Interregional Coordination Meeting, topics discussed may include the following:

1. each Planning Region's most recent Annual Interregional Information (to the extent it is not confidential or protected by CEII or other legal restrictions);

2. identification and preliminary discussion of interregional solutions, including conceptual solutions, that may meet regional transmission needs in each of two or more Planning Regions more cost effectively or efficiently; and

3. updates of the status of ITPs being evaluated or previously included in WestConnect's regional transmission plan.

D. ITP Joint Evaluation Process

1. Submission Requirements

A proponent of an ITP may seek to have its ITP jointly evaluated by the Relevant Planning Regions pursuant to Section D.2 by submitting the ITP into the regional transmission planning process of each Relevant Planning Region in accordance with such Relevant Planning Region's regional transmission planning process and no later than March 31st of any even-numbered calendar year. Such proponent of an ITP seeking to connect to a transmission facility owned by multiple transmission owners in more than one Planning Region must submit the ITP to

each such Planning Region in accordance with such Planning Region's regional transmission planning process. In addition to satisfying each Relevant Planning Region's information requirements, the proponent of an ITP must include with its submittal to each Relevant Planning Region a list of all Planning Regions to which the ITP is being submitted.

2. Joint Evaluation of an ITP

For each ITP that meets the requirements of Section D.1, WestConnect (if it is a Relevant Planning Region) is to participate in a joint evaluation by the Relevant Planning Regions that is to commence in the calendar year of the ITP's submittal in accordance with Section D.1 or the immediately following calendar year. With respect to any such ITP, WestConnect (if it is a Relevant Planning Region) is to confer with the other Relevant Planning Region(s) regarding the following:

(i) ITP data and projected ITP costs; and

(ii) the study assumptions and methodologies it is to use in evaluating the ITP pursuant to its regional transmission planning process.

For each ITP that meets the requirements of Section D.1, WestConnect (if it is a Relevant Planning Region):

(a) is to seek to resolve any differences it has with the other Relevant Planning Regions relating to the ITP or to information specific to other Relevant Planning Regions insofar as such differences may affect WestConnect's evaluation of the ITP;

(b) is to provide stakeholders an opportunity to participate in WestConnect's activities under this Section D.2 in accordance with its regional transmission planning process;

(c) is to notify the other Relevant Planning Regions if WestConnect determines that the ITP will not meet any of its regional transmission needs; thereafter WestConnect has no obligation under this Section D.2 to participate in the joint evaluation of the ITP; and

(d) is to determine under its regional transmission planning process if such ITP is a more cost effective or efficient solution to one or more of WestConnect's regional transmission needs.

E. Interregional Cost Allocation Process

1. Submission Requirements

For any ITP that has been properly submitted in each Relevant Planning Region's regional transmission planning process in accordance with Section D.1, a proponent of such ITP may also request Interregional Cost Allocation by requesting such cost allocation from WestConnect and each other Relevant Planning Region in accordance with its regional transmission planning process. The proponent of an ITP must include with its submittal to each Relevant Planning Region a list of all Planning Regions in which Interregional Cost Allocation is being requested.

2. Interregional Cost Allocation Process

For each ITP that meets the requirements of Section E.1, WestConnect (if it is a Relevant Planning Region) is to confer with or notify, as appropriate, any other Relevant Planning Region(s) regarding the following:

(i) assumptions and inputs to be used by each Relevant Planning Region for purposes of determining benefits in accordance with its regional cost allocation methodology, as applied to ITPs;

(ii) WestConnect's regional benefits stated in dollars resulting from the ITP, if any; and

(iii) assignment of projected costs of the ITP (subject to potential reassignment of projected costs pursuant to Section F.2 below) to each Relevant Planning Region using the methodology described in this section E.2.

For each ITP that meets the requirements of Section E.1, WestConnect (if it is a Relevant Planning Region):

(a) is to seek to resolve with the other Relevant Planning Regions any differences relating to ITP data or to information specific to other Relevant Planning Regions insofar as such differences may affect WestConnect's analysis;

(b) is to provide stakeholders an opportunity to participate in WestConnect's activities under this Section E.2 in accordance with its regional transmission planning process;

(c) is to determine its regional benefits, stated in dollars, resulting

from an ITP; in making such determination of its regional benefits in WestConnect, WestConnect is to use its regional cost allocation methodology, as applied to ITPs;

(d) is to calculate its assigned *pro rata* share of the projected costs of the ITP, stated in a specific dollar amount, equal to its share of the total benefits identified by the Relevant Planning Regions multiplied by the projected costs of the ITP;

(e) is to share with the other Relevant Planning Regions information regarding what its regional cost allocation would be if it were to select the ITP in its regional transmission plan for purposes of Interregional Cost Allocation; WestConnect may use such information to identify its total share of the projected costs of the ITP to be assigned to WestConnect in order to determine whether the ITP is a more cost effective or efficient solution to a transmission need in WestConnect;

(f) is to determine whether to select the ITP in its regional transmission plan for purposes of Interregional Cost Allocation, based on its regional transmission planning process; and

(g) is to endeavor to perform its Interregional Cost Allocation activities pursuant to this Section E.2 in the same general time frame as its joint evaluation activities pursuant to Section D.2.

F. Application of Regional Cost Allocation Methodology to Selected ITP

1. Selection by All Relevant Planning Regions

If WestConnect (if it is a Relevant Planning Region) and all of the other Relevant Planning Regions select an ITP in their respective regional transmission plans for purposes of Interregional Cost Allocation, WestConnect is to apply its regional cost allocation methodology to the projected costs of the ITP assigned to it under Sections E.2(d) or E.2(e) above in accordance with its regional cost allocation methodology, as applied to ITPs.

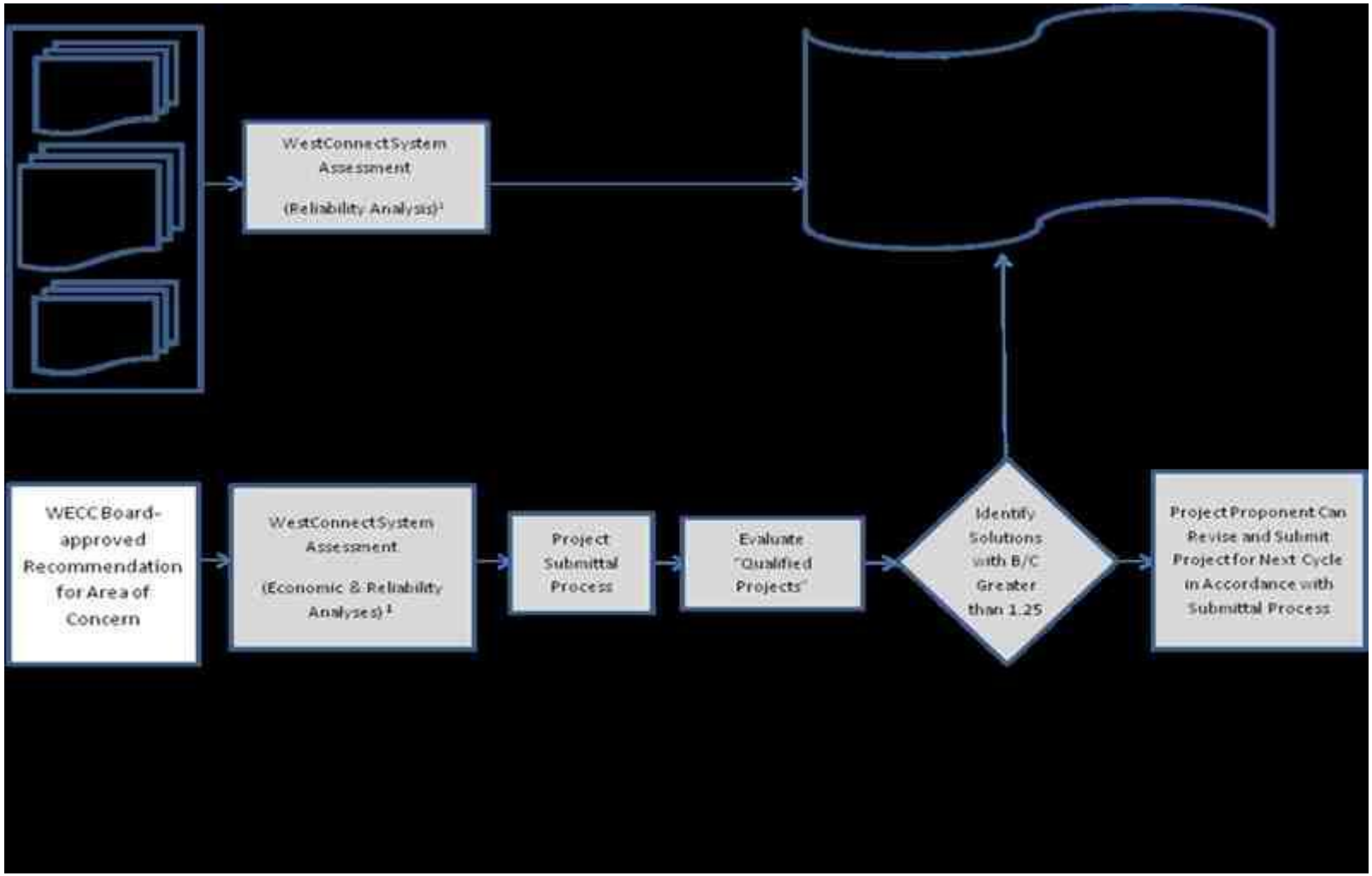
2. Selection by at Least Two but Fewer than All Relevant Regions

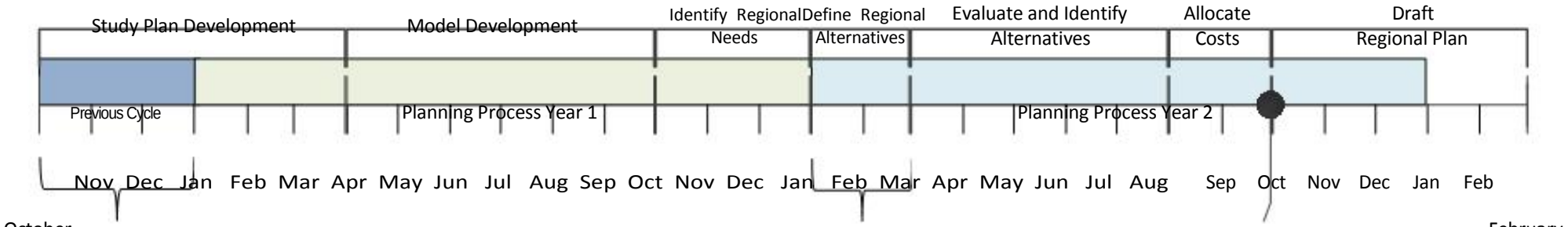
If WestConnect (if it is a Relevant Planning Region) and at least one, but fewer than all, of the other Relevant Planning Regions select the ITP in their respective regional transmission plans for purposes of Interregional Cost Allocation, WestConnect is to evaluate (or reevaluate, as the case may be) pursuant to Sections E.2(d), E.2(e), and E.2(f) above whether, without the participation of the non-selecting Relevant Planning Region(s), the ITP is selected (or remains

selected, as the case may be) in its regional transmission plan for purposes for Interregional Cost Allocation. Such reevaluation(s) are to be repeated as many times as necessary until the number of selecting Relevant Planning Regions does not change with such reevaluation.

If following such evaluation (or reevaluation), the number of selecting Relevant Planning Regions does not change and the ITP remains selected for purposes of Interregional Cost Allocation in the respective regional transmission plans of WestConnect and at least one other Relevant Planning Region, WestConnect is to apply its regional cost allocation methodology to the projected costs of the ITP assigned to it under Sections E.2(d) or E.2(e) above in accordance with its regional cost allocation methodology, as applied to ITPs.

Attachment 1





Stakeholder meetings	WestConnect will hold open stakeholder meetings on at least a semi-annual basis, or as needed and noticed by the PMC with 30 days advance notice, to update stakeholders about its progress in developing the Regional Plan and to solicit input regarding material matters of process related to the regional transmission plan.
Base transmission plan data collection window	The PS will initiate development of the base transmission plan no later than Quarter 8 of the previous biennial planning cycle and in conjunction with initiating the development of the Regional Study Plan. The submittal window for projects to be considered as part of the base transmission plan will be noticed a minimum of 15 days before the window opens, and the submittal window will stay open for a minimum of 30 days.
Scenario submittal window	A scenario submittal window will open when the development of the Regional Study Plan commences and no later than Quarter 8 of the previous biennial planning cycle. The scenario submittal window will be noticed a minimum of 15 days before the window opens, and the submittal window will stay open for a minimum of 30 days.
Identification of regional needs	Identified regional needs will be posted to the WestConnect website no later than close of Quarter 4 of the first year of the biennial cycle.
Submission Period for Regional Projects to Address Identified Regional Needs	For consideration in the current planning cycle, projects must be submitted following the posting of identified regional needs to the WestConnect website, and must occur before the end of Quarter 5 of the biennial planning cycle. Any project submitted after this date will be considered in the next subsequent planning cycle.

ATTACHMENT F
Service Agreement For Network Integration Transmission Service

1. This Service Agreement, dated as of _____, is entered into by and between Arizona Public Service Company ("APS" or "Transmission Provider"), an Arizona public service corporation, and_____("Transmission Customer").

2. Transmission Customer has been determined by Transmission Provider to be a Transmission Customer under Part III of this Tariff and has submitted a Completed Application for Network Integration Transmission Service in accordance with Section 29.2 of this Tariff.

3. Transmission Customer has executed a Network Operating Agreement with APS.

4. Service under this Service Agreement shall commence on the later of (1) _____ or (2) the date on which construction of any Direct Assignment Facilities and/or Network Upgrades are completed. Service under this Service Agreement shall terminate on _____.

5. Transmission Provider shall provide and Transmission Customer shall take and pay for Network Integration Transmission Service in accordance with the provisions of Part III of this Tariff, this Service Agreement, and the Network Operating Agreement, as they may be amended from time to time.

   Exhibit 1 to this Service Agreement lists initial Network Resources, Network Loads, points of interconnection between Transmission Customer's facilities and Transmission Provider's Transmission System, and Transmission Customer's initial Load Ratio Share.

6. The Network Customer's Load Ratio Share and Monthly Demand Charge shall change each month that another Network Customer initiates service or leaves the system. At the end of the subsequent summer period (June through September), the revised Load Ratio Share for the summer period shall be used to compute the billing adjustment to be made for each month the Network Customer's Monthly Demand Charge was based on a different Load Ratio Share.

7. Network Customers commencing transmission service in the non-summer (October through May) period, and who have no recent summer period (June through September) load history, shall pay a Monthly Demand Charge based on a "Preliminary Load Ratio Share" calculated on a progressive four month rolling average basis beginning with their first month of service. The Preliminary Load Ratio Share will change each month that another Network Customer initiates service or leaves the system. Upon the conclusion of the Network Customer's initial full summer period of service, appropriate billing adjustments will be made to each month for which the Network Customer's Monthly Demand Charge was based on a Preliminary Load Ratio Share.

8. Transmission Provider shall provide and Transmission Customer shall take and pay for the services, as indicated below:

8.1 Scheduling, System Control and Dispatch Service:

_____

8.2 Reactive Supply and Voltage Control from Generation Sources Service:

_____

8.3 Regulation and Frequency Response Service:

_____

8.4 Energy Imbalance Service:

_____

8.5 Operating Reserve - Spinning Reserve Service:

_____

8.6 Operating Reserve - Supplemental Reserve Service:

_____

8.7 Distribution Wheeling Service:

_____

8.8 Details of charges for all applicable redispatch costs:

_____

_____

8.9 Generator Imbalance Service:

_____

9. Any notice or request, other than requests to schedule specific transactions, made to or by either Party regarding this Agreement shall be made to the representative of the other Party as indicated below:

Transmission Provider:
Mailing Address:

Arizona Public Service Company
P.O. Box 53933, Station 3262
Phoenix, Arizona 85072-3933

Overnight Mail:

Arizona Public Service Company
2121 W. Cheryl Drive, MS 3262
Phoenix, Arizona 85021

Prescheduling Telephone No.: (602) 250-1361
Real Time Scheduling Telephone No.: (602) 250-1318

Transmission Customer:

_____
_____
_____

10. The Tariff is incorporated herein and made a part hereof.

11. Payments for Network Integration Transmission Service provided to Transmission Customer by Transmission Provider under this Agreement shall be sent to the name and address indicated on the bill provided to Transmission Customer.

IN WITNESS WHEREOF, the Parties have caused this Service Agreement to be executed by their respective authorized officials.

Transmission Provider:

Signature: _____

Name: _____

Title: _____

Date: _____

Transmission Customer:

Signature: _____

Name: _____

Title: _____

Date: _____

ATTACHMENT G

Standard Form Of Network Operating Agreement

THIS NETWORK OPERATING AGREEMENT ("Operating Agreement") between Arizona Public Service Company ("APS") and the Customer ("Customer") is made and entered into this ____ day of _____, ____.

1. **Recitals**

1.1 The Customer has requested and APS has agreed to provide Network Integration Service under APS' Network Integration Service Transmission Tariff ("Tariff");

1.2 APS and the Customer have agreed to enter into this Operating Agreement to set forth certain operating understandings in order for APS to provide the requested network service.

NOW, THEREFORE, APS and the Customer agree as follows:

2. **Definitions**

Along with the definitions set forth below, the definitions in APS' Network Integration Service Tariff are hereby incorporated into this Operating Agreement.

2.1 **Data Acquisition Equipment:** Supervisory control and data acquisition ("SCADA"), remote terminal units ("RTUs") to obtain information from a Party's facilities, telephone equipment, leased telephone circuits, fiber optic circuits, and other communications equipment necessary to transmit data to remote locations, and any other equipment or service necessary to provide for the telemetry and control requirements of the Tariff.

2.2 **Data Link:** The direct communications link between the Customer's energy control center and APS' control center that will enable APS' control center to receive real time telemetry and data from the Customer(s) and the Customer(s) to receive real time telemetry and data from APS' control center.

2.3 **Metering Equipment:** State-of-the-art high accuracy, solid state kW and kWh meters, metering cabinets, metering panels, conduits, cabling, high accuracy current transformers and high accuracy potential transformers, which directly or indirectly provide input to meters or transducers, meter recording devices (e.g., Solid State Data Receivers), telephone circuits, signal or pulse dividers, transducers, pulse accumulators, and any other metering equipment necessary to implement the provisions of the Tariff.

2.4 **On Peak Hours:** The On-Peak hours are the hours during the On Peak Period; the On Peak Period is Monday through Saturday beginning hour ending 0700 through hour ending 2200, Pacific Prevailing Time, excluding NERC-recognized holidays and the

day after Thanksgiving. When any of these holidays fall on a Sunday, the following day will be recognized as the holiday.

2.5 **Off Peak Hours:** All other hours besides the "On-Peak hours".

2.6 **Party or Parties:** Means APS or Customer or both APS and Customer.

2.7 **Protective Equipment:** Protective relays, relaying panels, relaying cabinets, circuit breakers, conduits, cabling, current transformers, potential transformers, coupling capacitor voltage transformers, wave traps, transfer trip and fault recorders, which directly or indirectly provide input to relays, fiber optic communication equipment, power line carrier equipment and telephone circuits, and any other protective equipment necessary to implement the protection provision of this Tariff.

3. **Term of Service**

The term of this Operating Agreement between APS and the Customer shall be concurrent with the Service Agreement.

4. **Points of Interconnection**

Network Transmission Service will be provided by APS at the points of interconnection specified in the Service Agreement signed by APS and Customer, as amended from time to time. Each point of interconnection in this listing shall have a unique identifier, meter location, meter number, metered voltage, terms on meter compensation and designation of current or future year of in service.

Additional studies may be required before approval if Customer request changes to the interconnection points. The Customer will be responsible for the cost of these studies.

5. **Customer Control Area**

5.1 **Customer Control Area:** The Customer shall: (i) operate as a Control Area and fully comply with all criteria, policies, procedures and requirements of the North American Electric Reliability Council (NERC) and the Western Systems Coordinating Council (WECC) or (ii) satisfy its Control Area requirements, including all Ancillary Services by contracting with APS; or (iii) satisfy its Control Area requirements, including Ancillary Services, by contracting with another entity which can satisfy those requirements in a manner that is consistent with Good Utility Practice and satisfies, but not be limited to, all criteria, policies, procedures and requirements of NERC and WECC; provided, however, that APS will not require adherence to any such criteria, policies, procedures and requirements to the extent that APS does not adhere to such criteria, policies, procedures and requirements. The Customer shall plan, construct, operate and maintain its facilities and system in accordance with Good Utility Practice, which shall include, but not be limited to, all applicable guidelines of the NERC and the

WECC, as applicable, as they may be modified from time to time, and any generally accepted practices in the region that are consistently adhered to by APS.

5.2 **Changing Control Areas:** If the Customer desires to change how it satisfies its Control Area requirements, the Customer must submit a new application for service under the Tariff.

5.3 **Control Area Operations:** APS and the Customer (or the Customer's host control area entity in the event the Customer is in another entity's control area) shall operate and maintain their respective control areas in a manner that will allow APS to safely and reliably operate the transmission system in accordance with the Tariff and with Good Utility Practice, so that either Party shall not unduly burden the other Party; provided, however, that notwithstanding any other provision of the Tariff, APS shall retain the sole responsibility and authority for all operating decisions that could affect the integrity, reliability and security of the transmission system.

5.4 **Control Area Equipment:** The Customer shall be responsible for the purchase, installation, upgrading, operation, maintenance and replacement of all Data Acquisition Equipment, Metering Equipment, Protection Equipment, and any other associated equipment and software, which may be required by either Party for the Customer to operate a Control Area in accordance with Good Utility Practice. APS shall have the right to review and approve such equipment and software as may be required to ensure conformance with Good Utility Practices, prior to its installation.

5.5 **Scheduling:** Scheduling, the procedure to establish use of resources and transmission facilities to meet anticipated loads (including interchange), is a service the Customer must obtain from APS any time that there is an energy transaction between it and another entity. The Customer shall notify APS of intended transactions, individual generator loading and Network load at each point no later than 10:00 a.m. MST, or mutually agreed to time, the last business day prior to Schedule implementation.

Schedules with APS may be either static or dynamic. Dynamic Schedules are updated in real time through telemetry and control equipment. Static schedules are metered and updated manually, changes to these will be by voice and can occur no later than twenty (20) minutes before the schedule goes into effect.

Customer shall preschedule, confirm and implement its schedules with APS for all interchange and transmission service transactions in accordance with APS standards, and practices and the terms and conditions of the Tariff.

5.6 **Control Area Data:** The Company shall incorporate the Customer's Metering Equipment and Data Acquisition Equipment into the Company's energy control center as the Parties determine to be necessary to incorporate the member systems into a single Control Area operating within the APS transmission system consistent with the terms and conditions of the Tariff.

5.7 **Regulation:** The Customer shall be responsible for insuring its system is operated in a manner to provide for its network load at all times, and to hold deviations from net interchange schedules to a minimum in accordance with the NERC and the WECC requirements.

5.8 **Data Link Operations:** The selection of real time telemetry and data to be received by APS and the Customer shall be as necessary for reliability, security, economics, and/or monitoring of real-time condition that affect APS' transmission system. This telemetry shall include, but is not limited to, loads, line flows (real and reactive power), voltages, generator output, and breaker status at any of the Customer's transmission and generation facilities. To the extent that APS or the Customer requires data that is not available from existing equipment, the Customer shall, at its own expense, install any Metering Equipment, Data Acquisition Equipment, or other equipment and software necessary for the telemetry to be received by APS or the Customer via the Data Link. APS shall have the right to inspect equipment and software associated with the Data Link in order to assure conformance with Good Utility Practice.

5.9 **Computer Modifications:** Each Party shall be responsible for implementing any computer modifications or changes required to its own computer system(s) as necessary to implement the provisions of the Tariff. APS modifications for this shall be at the Customer's expense.

5.10 **Metering:** The network load shall be metered on an hourly integrated basis in accordance with APS' standards or practices for similarly determining APS' load. The actual hourly network load during each calendar month shall be provided to APS by the Customer by the seventh day of the following calendar month.

5.11 **Real Time System Data Requirements:** The Customer shall provide or cause to be provided to APS via the Data Link, at least once every ten (10) seconds with data not being older than twenty (20) seconds, loads, line flows, voltages, generator outputs, breaker status, etc. as necessary for APS to provide service under the Tariff and ensuring the security and reliability of the APS transmission system.

5.12 **Disturbances:** Each Party shall, insofar as practicable, protect, operate and maintain its system and facilities so as to avoid or minimize the likelihood of disturbances which might cause impairment of or jeopardy to service to the customers of the other Party, or to other interconnected systems.

5.13 **Maintenance Of Control Equipment:** The Customer shall, on a regular basis or at APS' request, and at its own expense, test, calibrate, verify, and validate the Metering Equipment, Data Acquisition Equipment, and other equipment or software used to determine Network Load. APS shall have the right to inspect such tests, calibrations, verifications, and validations of the Metering Equipment, Data Acquisition Equipment, and other equipment or software used to determine the Network Load. Upon APS' request, the Customer will provide APS a copy of the installation, test, and calibration records of the Metering Equipment, Data Acquisition Equipment, and other equipment

or software. APS shall, at the Customer's expense, have the right to monitor the factory acceptance test, the field acceptance test, and the installation of any Metering Equipment, Data Acquisition Equipment, and other equipment or software used to determine the Network Load.

5.14 **Loss of the Data Link**: Whenever an outage of the Data Link occurs, all parties responsible for the component that is out should make every effort possible to correct the problem and minimize the outage time. An outage of the data link could result in the Customer receiving services from APS that it or a third party would normally provide. If the Customer or one of its contractors are responsible for the outage and it receives services from APS that it would not normally receive, APS will charge the Customer for these services at the rate allowed in the Tariff.

5.15 **Control Area Costs:** The Customer shall be responsible for all costs to establish, operate and maintain the Customer's Control Area services, including, but not limited to, engineering, administrative and general expenses, material, and labor expenses associated with the specifications, design, review, approval, purchase, installation, maintenance, modification, repair, operation, replacement, checkouts, testing, upgrading, calibration, removal, relocation of equipment or software.

6. Operating Requirements

6.1 **Conditions:** A Customer interconnecting with the APS transmission system is obligated to follow the same practices and procedures for interconnection and operation that APS uses for its own load and resources.

Where Customer purchases Ancillary Services from third parties, the Customer shall have the responsibility to secure contractual arrangements with such third parties that are consistent with the Tariff, this Operating Agreement, any applicable rules and procedures of the Operating Committee, NERC and WECC criteria, policies, procedures, and requirements.

6.2 Generation

6.2.1 **Customer's Generation:** The Customer shall operate its generating resources in a manner consistent with that of APS, including following voltage schedules, unblocked governors, and meeting power factor requirements at the point of interconnection with APS' system and other such criteria required by NERC and WECC and consistently adhered to by APS.

6.2.2 **Cogeneration and Small Power Production Facilities**: If a Qualifying Facility is located or locates in the future on the system of the Customer, and the owner or operator of such Qualifying Facility sells the output of such Qualifying Facility to an entity other than the Customer, the delivery of such Qualifying Facility's power shall be subject to and contingent upon transmission

arrangements being established with APS prior to commencement of delivery of any such power and energy.

6.3 **Loss Compensation**: APS's OATT requires the compensation of losses. Losses are based upon the energy applied against each reservation and the loss factors specified in APS's OATT and/or Network Integration Transmission Service Agreement. Transmission customers shall compensate APS through the normal monthly billing. The losses will be monetized at the Hourly Pricing Proxy calculated as described in Schedule 4, Energy Imbalance Service, of the OATT.

6.4 **Voltage Support:** The Customer will have sufficient reactive compensation and control to meet the power factor requirements specified below (such range to be adhered to except for momentary deviations or at APS' written consent) at each interconnection or point of delivery with each Member System. If the Customer does not provide the necessary reactive compensation and control to comply with the objectives described in this section, APS shall have the unilateral right to install such equipment to meet these standards at the Customer's expense.

POWER FACTOR REQUIREMENTS
0.95 (lagging) to 0.95 (leading)

6.5 **Operating Reserve:** Customer shall meet its share of Operating Reserve by either: (i) providing its Operating reserves from its resources; or (ii) purchasing Operating Reserves from APS; or (iii) arranging to have a third party meet the Operating Reserve requirement.

Firm transmission rights on a path between the resource and the Customers load shall be in place before a third party can supply Operating Reserves. The operation and dispatch of third party resources used for the Operating Reserves must be coordinated with APS. Procedures for coordination will be developed by the Operating Committee.

Customer's Operating Reserve requirements will be determined in the following manner: APS shall calculate its Operating Reserve requirement under WECC or the Inland Power Pool (IPP) guidelines, as applicable, for network load and resources and network loads and resources of all previously committed Tariff customers. The same calculation shall be performed including the Customer's network load and resources. The difference between the calculated amounts is the Transmission Customer's Operating Reserve obligation.

6.6 **Energy Imbalance**: The Customer should operate its system at all times such that energy imbalances are minimized and stay within the acceptable deviation band of plus or minus 1.5% (with a minimum of 2 MW). When the Customer keeps its imbalance

within the acceptable range, the imbalances will be corrected within 30 days of receipt of the bill by either APS or the Customer returning the energy in-kind as may be applicable or by monetary payment as provided for in Schedule 4 of the Tariff. This will be done with preschedules as soon after the end of the billing cycle as practical. Should the imbalance exceed the 1.5% band such that APS is supplying the Customer energy, the Customer will be charged for the energy above 1.5% at the rate specified in the Tariff. Should the Customer schedule an excess amount of energy and exceed the 1.5%, APS will return 90% of the energy above the 1.5%, at APS' convenience.

6.7 **Load Shedding:** APS and the Customer shall implement load shedding programs to maintain the reliability and integrity of the electrical system, as provided in Section 33.6 of the Tariff. Load shedding shall include: (1) automatic load shedding; (2) manual deep load shedding; or (3) rotating interruptions of customer load. APS will order load shedding to maintain the relative sizes of load served, unless otherwise required by circumstances beyond the control of APS or Customer. Automatic load shedding devices will operate without notice. When manual deep load shedding or rotating interruptions are necessary, APS will notify Customer's dispatchers or schedulers of the required action and the Customer shall comply immediately. Compliance will be monitored and audited as determined by the Operating Committee.

The Customer shall, at its own expense, provide, operate, and maintain in service high-speed, digital under frequency load shedding equipment. The Customer's equipment shall be: (1) compatible and coordinated with APS' load shedding equipment; and (2) set for the amount of load to be shed, with frequency trips and tripping time shown in Table C-1. In the event APS modifies the load shedding system, the Customer shall, at its expense, make changes to the equipment and setting of such equipment, as required.

Table C-1

Relay Setting for Automatic Load Shedding

	Frequency Set point (Hz)	Fixed Time Delay (Cycles)	Percent Load Shed
1st 10% Block of load	59.1	6	10
2nd 10% Block of load	58.9	6	10
3rd 10% Block of load	58.7	6	10
4th 10% Block of load	58.5	6	10
5th 10% Block of load	57.9	6	10

6.8 In the event the Customer fails to respond to these established Load Shedding and Curtailment procedures, the Customer shall be subject to the following charges and requirements:

6.8.1 Charges for Failure to Shed Load: APS will assess a charge for unauthorized use of transmission service at a rate equal to two (2) times the maximum allowable daily charge for Long-Term Point-to-Point Transmission Service set forth in Schedule 7 of the Tariff. The charge will be applied to the maximum number of kilowatts of any hour the customer fails to shed load as requested during the day (or alternatively the designated kilowatts of load to be shed for those customers having automatic load shedding equipment). The Customer will incur the charge for each day that it fails to comply with a request to shed load, and the charge will be based upon the curtailable load calculated using the maximum kilowatts of uncurtailed load of any hour during each day the Customer is requested to shed load.

These charges are intended to serve as a disincentive to Transmission Customers who fail to shed load in accordance with the provision contained in this Tariff.

7. **Emergency System Operations**

7.1 The Customer, at its expense, shall be subject to all applicable emergency operation standards promulgated by NERC, WECC, and APS which may include but not be limited to under frequency relaying equipment, load shedding equipment, and voltage reduction equipment.

7.2 APS reserves the right to take whatever action it deems necessary to preserve the integrity of the APS transmission system during emergency operating conditions. If the Network Transmission service at the points of interconnection is causing harmful physical effects to the APS transmission system facilities or to its customers (e.g., harmonics, under voltage, over voltage, flicker, voltage variations, etc.), APS shall promptly notify the Customer. If the Customer does not take appropriate corrective actions immediately, APS shall have the right to interrupt Network Transmission Service under the Tariff in order to alleviate the situation and to suspend all or any portion of Network Transmission Service under the Tariff until appropriate corrective action is taken.

7.3 In the event of any adverse condition or disturbance on the APS electric system or on any other system directly or indirectly interconnected with APS' transmission system, APS may, as it deems necessary, take appropriate action, that may result in the automatic or manual interruption of Network Transmission Service in order to: (i) limit the extent or damage of the adverse condition or disturbance; (ii) prevent damage to generating or transmission facilities; (iii) expedite restoration of service; or (iv) preserve public safety.

8. **Redispatch Procedures**

8.1 If APS determines that redispatching Network Resources (including reductions in off-system purchases) to relieve an existing or potential transmission system constraint is the most effective way to ensure the reliable operation of the transmission system, APS will redispatch APS' and the Customer's Network Resources on a least cost basis, without regard to the ownership of such resources. APS will apprise the Customer of its redispatch practices and procedures, as they may be modified from time to time.

8.2 The Customer shall submit verifiable incremental and decremental cost data for its Network Resources, which estimates the cost to the Customer of changing the generation output of each of its Network Resources to APS by data link when submitting its preschedules. These costs will be used (along with similar data for APS' resources) as the basis for least-cost redispatch through the next business day. The APS grid operation staff shall keep these data confidential, including from APS marketing staff. If the Customer experiences changes to its costs during the following day, the Customer must submit those changes to the APS energy control center. APS will implement least-cost redispatch consistent with its existing contractual obligations and its current practices and procedures for its own resources. The

Customer shall respond immediately to requests for redispatch from the APS energy control center.

8.3 The Customer may audit particular redispatch events at its own expense during normal business hours following reasonable notice to APS. Either the Customer or APS may request an audit of the other party's cost data by an independent agent at the requester's cost. Once redispatch has been implemented, APS will book in a separate account costs incurred by both APS and the Customer based on the submitted incremental and decremental costs. APS and the Customer shall each bear a proportional share of the total redispatch costs based on their then-current load ratio shares. APS shall bill or credit the Customer's monthly bill as appropriate.

9. **Curtailments**

To the extent that a transmission constraint on the APS Transmission System cannot be relieved through redispatch or other methods, APS will curtail schedules across the constrained area. To the extent practical and consistent with Good Utility Practice, schedule curtailments will be shared by APS and Customer in proportion to the then current load ratio shares of the constrained area. These curtailments will be in accordance with procedures established by the Operating Committee.

10. **Maintenance of Facilities**

10.1 **Notification:** The Operating Committee shall establish procedures to coordinate the maintenance schedules of generating resources, transmission equipment, substation equipment, data link equipment, data acquisition equipment, protective equipment and any other equipment for which maintenance must be scheduled for reliability or economic reasons. By September 1 of each year, the Customer shall provide to APS the maintenance schedules and planned outages for the next year, this information shall be updated at least thirty (30) days in advance of the date specified for the forecasted maintenance.

10.2 The Customer shall obtain concurrence from APS at least three (3) work days before beginning any scheduled maintenance of its facilities.

10.3 The Customer shall obtain clearance from APS when Customer is ready to begin maintenance on a network resource, transmission line, or substation.

10.4 The Customer shall immediately notify APS at the time when any unscheduled or forced outages occur and again when such unscheduled or forced outages end.

10.5 The Customer shall notify and coordinate with APS prior to reparalleling to the network resource, transmission line, or substation with the transmission system.

11. Network Operating Committee

11.1 **Network Operating Committee:** Each Party shall in writing appoint a member and an alternate(s) to a Network Operating Committee and to notify the other Party of such appointment(s). Such appointments may be changed at any time by similar written notice. The Network Operating Committee shall meet as necessary and review the duties set forth herein. The Network Operating Committee shall hold meetings at the request of either Party at a time and place agreed upon by the members of the Network Operating Committee. The Network Operating Committee shall meet once each year to discuss the information exchanged pursuant to this Section. Each member and alternate shall be a responsible person working with the day-to-day operations of each respective power system. The Network Operating Committee shall represent the Parties in all operational matters that may be delegated to it by mutual agreement of the Parties hereto.

11.2 **Responsibilities:** The Network Operating Committee shall: (i) adopt rules and procedures consistent with this Network Operating Agreement and the Tariff governing operating technical requirements necessary for implementing the Tariff; (ii) review network resources and network loads on an annual basis in order to assess the adequacy of the transmission network, and; (iii) obtain from APS, APS' operating policies, procedures, and guidelines for network interconnection and operation.

11.3 **Network Operating Committee Agreements:** Each Party shall cooperate in providing to the Network Operating Committee all information required in the performance of the Network Operating Committee's duties. All decisions and agreements, if any, made by the Network Operating Committee shall be evidenced in writing and shall be in accordance with the Tariff. The Network Operating Committee shall have no power to amend or alter the provisions of this Network Operating Agreement or the Service Agreement.

11.4 **Dispute Resolution:** In the event of a dispute arises between the Network Operating Committee concerning the operation or the interpretation of the Operating Agreement, and the parties are unable to resolve it within a reasonable amount of time (not to exceed thirty (30 days), the dispute shall be resolved in accordance with the procedures specified in Section 12 of the Tariff.

12. Technical Data

12.1 **Annual Load Forecast:** The Customer shall provide APS by September 1st of each year the Customer's best forecast of the following calendar year's (i) monthly coincident peak network load of the member systems expressed in kW along with the power factor of each of the member systems at such time and, (ii) each individual Member System's monthly non-coincident peak loads expressed in kW along with the power factor of each of the member systems at such time. Such forecast shall be made using prudent forecasting techniques available and generally deemed acceptable in the electric utility industry.

12.2 **Annual Network Resource Availability Forecast:** The Customer shall provide to APS by September 1st of each year the Customer's best forecast of the following calendar year's planned Network Resource availability forecast (e.g. all planned resource outages, including off-line and on-line dates). Such forecast shall be made using prudent forecasting techniques available and generally deemed acceptable in the electric utility industry. The Customer shall inform APS, in a timely manner, of any changes to Customer's planned Network Resource availability forecast.

12.3 **Annual Operating Conflicts Due to Transmission Constraints:** In the event that APS determines that the annual Network Resource availability forecast cannot be accommodated due to a transmission constraint on the APS Transmission System, and such constraint may jeopardize the security of the APS Transmission System or adversely affect the economic operation of either APS or the Customer, to the extent possible, the Network Operating Committee will coordinate the annual Operating Network Resource availability forecast of both Parties to mitigate the transmission constraint.

12.4 **Daily Operations Forecast:** The Customer shall provide APS, at least 36 hours in advance of every calendar day, the Customer's best hourly forecast for the calendar day of the (i) maximum non-coincident flow (both import and export) at each of the APS interfaces with the Customer and/or the member systems, (ii) first contingency maximum non-coincident flow (both import and export) at each of the APS interfaces with each Member System, (iii) any planned transmission or generation outage(s) on the system of any of the member systems or on a system other than that of APS where a Network Resource is located, (iv) the individual coincident member systems' loads along with the commitment/dispatch of the Network Resources at peak operating period(s) (the peak operating period(s) will be determined by APS operating personnel and may be changed from time-to-time as necessary), (v) operating reserve from each resource and each third party, (vi) transmission path reserved for operating reserves from third party(ies), and (vii) any other information that APS' operating personnel reasonably deem appropriate to safely and reliably operate the APS transmission system. The Customer shall keep APS informed in a timely manner, of any changes to its current daily operating forecast.

12.5 **Daily Operating Conflicts Due to Transmission Constraints:** In the event that APS determines that the daily operating forecast cannot be accommodated due to a transmission constraint on the APS transmission system and such constraint may jeopardize the security and reliability of the APS transmission system or adversely affect the economic operation of either APS or the Customer, the load curtailment provisions of the Tariff will be implemented.

12.6 **Network Planning Information:** In order for APS to plan, on an ongoing basis, to meet the Customer's firm long-term requirements for Network Integration Service the Customer shall provide APS with the information set forth in Sections 12.7 - 12.10 of this Network Operating Agreement. This type of information is consistent with APS'

information requirements for planning to serve APS' Native Load Customers and is consistent with APS' ten (10) year planning process.

12.7 **Annual Planning Network Load Forecast:** The Customer shall provide APS by September 1st of each year the Customer's best forecast of the following ten (10) calendar years' (i) monthly coincident Network Load and non-coincident member systems' Loads expressed in kW, and (ii) each individual member system's monthly coincident and non-coincident loads expressed in kW along with the respective power factor. Such forecast shall be made using prudent forecasting techniques available and generally accepted in the electric utility industry.

12.8 **Annual Planning Network Resource Forecast:** The Customer shall provide to APS by September 1st of each year (i) the Customer's best forecast of the next ten (10) years' planned network resources and all pertinent information regarding such Network Resources, (ii) a copy of the Customer's most current firm purchased power commitments (including the underlying agreement for purchased power) for the next ten (10) years on a unit specific basis for any network resource(s) which is a firm unit specific purchased power resource, and (iii) for purchased power commitments that are non-unit specific, any information necessary for APS (including the underlying agreement for purchased power) to model how the purchased power commitment will be dispatched by the Customer to meet the network load; provided, however, that the information provided by the Customer pursuant to this Section 12.8 shall not be deemed a substitute for written notice required for designating new Network Resources.

12.9 **Annual Planning Network Transmission Facilities:** The Customer shall provide to APS by September 1st of each year plans of any additions or changes to its internal transmission facilities and/or each member systems' system (lines, transformers, reactive equipment, etc.) for each of the subsequent ten (10) calendar years.

12.10 **Technical Data Format:** The Customer shall provide APS the best available data associated with network resources and transmission facilities, for modeling purposes in an electronic format specified by APS. The electronic format specified by APS shall be a format commonly used in the electric utility industry.

IN WITNESS WHEREOF, the parties hereto have caused this Operating Agreement to be executed by their duly authorized officers effective as of the date first written above.

ARIZONA PUBLIC SERVICE COMPANY

By: _____
Title: _____
Date: _____

[THE CUSTOMER]

By: _____
Title: _____
Date: _____

ATTACHMENT H

Annual Transmission Rates for Network Integration Tr ansmission Ser vice

1. The Annual Transmission Revenue Requirement and the gross rate for Network Integration Transmission Service and Retail Network Integration Transmission Service are equal to the results of the formula shown in Attachment H - 1, which are posted on APS' website. The rate determined pursuant to Attachment H - 1 shall be implemented pursuant to the Formula Rate Implementation Protocols set forth in Attachment H - 2. Service utilizing other facilities will be provided at rates determined on a case-by-case basis.

2. The rate and revenue requirement in paragraph 1 of this attachment shall be effective until amended by APS or modified by the Commission.

3. For purposes of Network Integration Transmission Service, all load and capacity quantities used in developing the Network Load and APS' total load in calculating the Network Customer's Load Ratio Share shall be adjusted to the Transmission System input level, i.e., shall include the transmission capacity amount associated with applicable losses.

ATTACHMENT H - 1

APS' For mula Rate

Arizona Public Service Company

Formula Rate -- Appendix A

Shaded cells are input cells

		Notes	FERC Form 1 Page # or Instruction	YEAR
Allocators				
	Wages & Salary Allocation Factor			
1	Transmission Wages Expense		p354.21.b	0
2	Total Wages Expense		p354.28b	0
3	Less A&G Wages Expense		p354.27b	0
4	Total		(Line 2 - 3)	0
5	**Wages & Salary Allocator**		(Line 1 / 4)	**0.0000%**
	Plant Allocation Factors			
6	Electric Plant in Service	(Note B)	Attachment 5	0
7	Total Plant In Service		(Sum Line 6)	0
8	Accumulated Depreciation (Total Electric Plant)		Attachment 5	0
9	Total Accumulated Depreciation		(Line 8)	0
10	Net Plant		(Line 7 - 9)	0
11	Transmission Gross Plant		(Line 22 - Line 38)	0
12	**Gross Plant Allocator**		(Line 11 / 7)	**0.0000%**
13	Transmission Net Plant		(Line 32 - Line 38)	0
14	**Net Plant Allocator**		(Line 13 / 10)	**0.0000%**
Plant Calculations				
	Plant In Service (Note O)			
15	Transmission Plant In Service	(Note B)	Attachment 5	0
16	New Transmission Plant Additions for Current Calendar Year (weighted by months in service)		Attachment 6	0
17	**Total Transmission Plant In Service**		(Line 15 + 16)	**0**
18	General & Intangible		Attachment 5	0
19	Total General		(Line18)	0
20	Wage & Salary Allocation Factor		(Line 5)	0.00000%
21	**General Plant Allocated to Transmission**		(19 * 20)	**0**
22	**TOTAL Plant In Service**		**(Line 17 + 21)**	**0**
	Accumulated Depreciation			
23	Transmission Accumulated Depreciation	(Note B)	Attachment 5	0
24	Accumulated Depreciation for Transmission Plant Additions for Current Rate Year		Attachment 6	0
25	**Total Transmission Accumulated Depreciation**		(Line 23 + Line 24)	0
26	Accumulated General Depreciation		Attachment 5	0
27	Accumulated Intangible Depreciation		Attachment 5	0
28	Total Accumulated Depreciation		(Sum Lines 26 to 27)	0
29	Wage & Salary Allocation Factor		(Line 5)	0.0000%
30	**General Allocated to Transmission**		(Line 28 * 29)	**0**
31	**TOTAL Accumulated Depreciation**		**(Line 25 + 30)**	**0**
32	**TOTAL Net Property, Plant & Equipment**		**(Line 22 - 31)**	**0**

Adjustment To Rate Base				
	Accumulated Deferred Income Taxes			
33	ADIT net of FASB 106 and 109		Attachment 1	0
34	**Accumulated Deferred Income Taxes Allocated To Transmission**		(Line 33)	**0**
	Transmission O&M Reserves			
35	**Total Balance Transmission Related Account 242 Reserves**	Enter Negative	Attachment 5	**0**
	Prepayments			
36	Prepayments	(Note A)	Attachment 5	0
37	**Total Prepayments Allocated to Transmission**		(Line 36)	**0**
38	**Land Held for Future Use**	(Note C)	p214	**0**
	Materials and Supplies			
39	Undistributed Stores Exp	(Note A)	p227.6c & 16.c	0
40	Wage & Salary Allocation Factor		(Line 5)	0.0000%
41	Total Transmission Allocated		(Line 39 * 40)	0
42	Transmission Materials & Supplies		p227.8c	0
43	**Total Materials & Supplies Allocated to Transmission**		(Line 41 + 42)	**0**
	Cash Working Capital			
44	Operation & Maintenance Expense		(Line 72)	0
45	Zero Cash Working Capital		Zero	0.0%
46	**Total Cash Working Capital Allocated to Transmission**		(Line 44 * 45)	**0**
	Network Credits			
47	Outstanding Network Credits	(Note N)	Attachment 5	0
48	Less Accumulated Depreciation Associated with Facilities with Outstanding Network Credits	(Note N)	Attachment 5	0
49	Net Outstanding Credits		(Line 47 - 48)	**0**
50	**TOTAL Adjustment to Rate Base**		(Line 34 + 35 + 37 + 38 + 43 + 46 - 49)	**0**
51	**Rate Base**		(Line 32 + 50)	**0**
O&M				
	Transmission O&M			
52	Transmission O&M		p321.112.b	0
53	Less Account 565		p321.96.b	0
54	**Transmission O&M**		(Line 52 - 53)	**0**
	Allocated General Expenses			
55	Total A&G		p323.197.b	0
56	Less PBOP Adjustment		Attachment 5	0
57	Less Property Insurance Account 924		p323.185b	0
58	Less Regulatory Commission Exp Account 928	(Note E)	p323.189b	0
59	Less General Advertising Exp Account 930.1		p323.191b	0
60	Less EPRI Dues	(Note D)	p352-353	0
61	**General Expenses**		(Line 55) - Sum (56 to 60)	0
62	Wage & Salary Allocation Factor		(Line 5)	0.0000%
63	**General Expenses Allocated to Transmission**		(Line 61 * 62)	**0**
	Directly Assigned A&G			
64	Regulatory Commission Exp Account 928	(Note G)	Attachment 5	0
65	General Advertising Exp Account 930.1	(Note K)	Attachment 5	0
66	Subtotal - Transmission Related		(Line 64 + 65)	**0**
67	Property Insurance Account 924		p323.185b	0
68	General Advertising Exp Account 930.1	(Note F)	Attatchment 5	0
69	Total		(Line 67 + 68)	0
70	Net Plant Allocation Factor		(Line 14)	0.0000%
71	**A&G Directly Assigned to Transmission**		(Line 69 * 70)	**0**
72	**Total Transmission O&M**		**(Line 54 + 63 + 66 + 71)**	**0**
Depreciation & Amortization Expense				
	Depreciation Expense (Note P)			
73	Transmission Depreciation Expense		p336.7f	**0**
74	New plant Depreciation Expense		Attachment 6	**0**
75	**Total Transmission Depreciation Expense**		(Line 73 + Line 74)	**0**
76	General Depreciation		p336.10f	0
77	Intangible Amortization	(Note A)	p336.1f	0
78	Total		(Line 76 + 77)	0
79	Wage & Salary Allocation Factor		(Line 5)	0.0000%
80	**General Depreciation Allocated to Transmission**		(Line 78 * 79)	**0**
81	**Total Transmission Depreciation & Amortization**		**(Line 75 + 80)**	**0**

Taxes Other than Income

82	**Taxes Other than Income**		Attachment 2	**0**
83	**Total Taxes Other than Income**		**(Line 82)**	**0**

Return / Capitalization Calculations

	Long Term Interest			
84	Long Term Interest		p117.62c through 67c	0
85	**Long Term Interest**		(Line 84)	0
86	**Preferred Dividends**	enter positive	p118.29c	0
	Common Stock			
87	Proprietary Capital		p112.16c	0
88	Less Preferred Stock	enter negative	(Line 96)	0
89	Less Accumulated Other Comprehensive Income Account 219	enter negative	p112.15c	0
90	Less Account 216.1	enter negative	p112.12c	0
91	**Common Stock**		(Sum Lines 87 to 90)	0
	Capitalization			
92	Long Term Debt		p112.18c through 23c	0
93	Less Loss on Reacquired Debt	enter negative	p111.81c	0
94	Plus Gain on Reacquired Debt	enter positive	p113.61c	0
95	Total Long Term Debt		(Sum Lines 92 to 94)	0
96	Preferred Stock		p112.3c	0
97	Common Stock		(Line 91)	0
98	**Total Capitalization**		(Sum Lines 95 to 97)	0
99	Debt %		(Line 95 / 98)	0%
100	Preferred %		(Line 96 / 98)	0%
101	Common %		(Line 97 / 98)	0%
102	Debt Cost		(Line 85 / 95)	0.0000
103	Preferred Cost		(Line 86 / 96)	0.0000
104	Common Cost	(Note J)	Fixed	0.1075
105	Weighted Cost of Debt		(Line 99 * 102)	0.0000
106	Weighted Cost of Preferred		(Line 100 * 103)	0.0000
107	Weighted Cost of Common		(Line 101 * 104)	0.0000
108	**Total Return (R)**		(Sum Lines 105 to 107)	**0.0000**
109	**Investment Return = Rate Base * Rate of Return**		**(Line 51 * 108)**	**0**

Composite Income Taxes

	Income Tax Rates			
110	FIT=Federal Income Tax Rate			0.00%
111	SIT=State Income Tax Rate or Composite	(Note I)		0.00%
112	p		FIT deductible for SIT	0.00%
113	T = 1-{[(1-SIT) * (1-FIT)]/(1-SIT * FIT * p)}			0.00%
114	T/ (1-T)			0.00%
	ITC Adjustment	(Note I)		
115	Amortized Investment Tax Credit	enter negative	p266.8f	0
116	T/(1-T)		(Line 114)	0.00%
117	Net Plant Allocation Factor		(Line 14)	0.0000%
118	**ITC Adjustment Allocated to Transmission**		(Line 115 * (1 + 116) * 117)	**0**
119	**Income Tax Component =**		[Line 114 * 109 * (1-(105 / 108))]	-
120	**Total Income Taxes**		**(Line 118 + 119)**	**-**

REVENUE REQUIREMENT

	Summary		
121	Net Property, Plant & Equipment	(Line 32)	0
122	Adjustment to Rate Base	(Line 50)	0
123	**Rate Base**	(Line 51)	**0**
124	O&M	(Line 72)	0
125	Depreciation & Amortization	(Line 81)	0
126	Taxes Other than Income	(Line 83)	0
127	Investment Return	(Line 109)	0
128	Income Taxes	(Line 120)	0
129	**Gross Revenue Requirement**	**(Sum Lines 124 to 128)**	**0**

	Adjustment to Remove Revenue Requirements Associated with Excluded Transmission Facilities			
130	Transmission Plant In Service		(Line 15)	0
131	Excluded Transmission Facilities	(Note M)	Attachment 5	0
132	Included Transmission Facilities		(Line 130 - 131)	0
133	Inclusion Ratio		(Line 132 / 130)	0.00%
134	Gross Revenue Requirement		(Line 129)	0
135	**Adjusted Gross Revenue Requirement**		(Line 133 * 134)	**0**
	Revenue Credits & Interest on Network Credits			
136	**Revenue Credits**		Attachment 3	0
137	**Interest on Network Credits**	(Note N)	Attachment 5	0
138	**Net Revenue Requirement**		**(Line 135 - 136 + 137)**	**0**
	Net Plant Carrying Charge			
139	Net Revenue Requirement		(Line 138)	-
140	Net Transmission Plant		(Line 15 - 23)	-
141	Net Plant Carrying Charge		(Line 139 / 140)	**0.0000%**
142	Net Plant Carrying Charge without Depreciation		(Line 139 - 73) / 140	**0.0000%**
143	Net Plant Carrying Charge without Depreciation, Return, nor Income Taxes		(Line 139 - 73 - 109 - 120) / 140	**0.0000%**
	Net Plant Carrying Charge Calculation per 100 Basis Point increase in ROE			
144	Net Revenue Requirement Less Return and Taxes		(Line 138 - 127 - 128)	-
145	Increased Return and Taxes		Attachment 4	-
146	Net Revenue Requirement per 100 Basis Point increase in ROE		(Line 144 + 145)	-
147	Net Transmission Plant		(Line 15 - 23)	-
148	Net Plant Carrying Charge per 100 Basis Point increase in ROE		(Line 146 / 147)	**0.0000%**
149	Net Plant Carrying Charge per 100 Basis Point in ROE without Depreciation		(Line 146 - 73) / 147	**0.0000%**
150	**Net Revenue Requirement**		(Line 138)	-
151	True-up amount		Attachment 6	-
152	Plus any increased ROE calculated on Attachment 7		Attachment 7	-
153	Facility Credits under Section 30.9 of the APS OATT		Attachment 5	-
154	**Net Adjusted Revenue Requirement**		(Line 150 - 151 + 153)	-
	Annual Point-to-Point Transmission Rate			
155	Average of the 4 Summer CP	(Note L)	Network Transmission Peak Report	**0**
156	Annual Point-to-Point Transmission Rate		(Line 154 / 155)	**0.00**
157	Average of the 8 Non-Summer CP	(Note L)	Network Transmission Peak Report	**0**
158	Implied Non-Summer Revenue Requirement		((Line 156/12)*8* Line 157)	**0**
159	Implied Summer Revenue Requirement		(Line 138 - Line 158)	**0**
160	Implied Annualized Summer Point-to-Point Transmission Rate		((Line 154- line 158/Line 155/4)*12)	**0.00**
	Retail Transmission Rates			
161	Residential (kWh)		Rate Design Worksheet	**0.00000**
162	Gen Serv < 3MW Without Demand Meters -Includes All Customers 20 kW and less (kWh)		Rate Design Worksheet	**0.00000**
163	Gen Serv < 3MW (kW)		Rate Design Worksheet	**0.000**
164	Gen Serv > 3MW (kW)		Rate Design Worksheet	**0.000**

Notes

A Electric portion only

B Exclude Construction Work In Progress expensed as O&M (rather than amortized). New Transmission plant that is expected to be placed in service in the current calendar year weighted by number of months it is expected to be in-service. New Transmission plant expected to be placed in service in the current calendar year that is not included in the Transmission Plan must be separately detailed on Attachment 5. For the Reconciliation, new transmission plant that was actually placed in service weighted by the number of months it was actually in service

C Transmission Portion Only

D All EPRI Annual Membership Dues

E All Regulatory Commission Expenses

F Safety related advertising included in Account 930.1

G Regulatory Commission Expenses directly related to transmission service, RTO filings, or transmission siting itemized in Form 1 at 351.h.

I The currently effective income tax rate, where FIT is the Federal income tax rate; SIT is the State income tax rate, and p = "the percentage of federal income tax deductible for state income taxes". If the utility includes taxes in more than one state, it must explain in Attachment 5 the name of each state and how the blended or composite SIT was developed. Furthermore, a utility that elected to use amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 266.8.f) multiplied by (1/1-T). A utility must not include tax credits as a reduction to rate base and as an amortization against taxable income. If the tax rates change during a calendar year, an average tax rate will be used - calculated based on the number of days each was effective in the calendar year.

J ROE of 10.75%

K Education and outreach expenses relating to transmission, for example siting or billing

L Based on APS Network Transmission Peak Report

M Amount of transmission plant excluded from rates per Attachment 5.

N Outstanding Network Credits is the balance of Network Facilities Upgrades Credits due Transmission Customers who have made lump-sum payments (net of accumulated depreciation) towards the construction of Network Transmission Facilities consistent with Paragraph 657 of Order 2003-A. Interest on the Network Credits as booked each year is added to the revenue requirement to make the Transmisison Owner whole on Line 137.

O AFUDC shall not be applied to the portion of a Network Upgrade for which the customer has provided the funds.

P Changes in depreciation or amortization rates must be filed with the Commission, as well as any new depreciation or amortization rates.

END

Arizona Public Service Company

Attachment 1 - Accumulated Deferred Income Taxes (ADIT) Worksheet

	Transmission Related	*Plant Related*	*Labor Related*	*Total ADIT*
ADIT- 282	0	0	0	0
ADIT-283	0	0	0	0
ADIT-190	0	0	0	0
ADITC-255	0	0	0	0
Subtotal-End of Year	0	0	0	0
Subtotal-Beginning of Year	0	0	0	0
End of Year for Est./Average for Final	0	0	0	0
Wages & Salary Allocator (Appendix A, Line 5)			0.0000%	
Gross Plant Allocator (Appendix A, Line 12)		0.0000%		
ADIT-End of Year for Estimate	0	0	0	0
ADIT-Average for Final	0	0	0	0

In filling out this attachment, a full and complete description of each item and justification for the allocation to Columns B-E and each separate ADIT item will be listed, dissimilar items with amounts exceeding $100,000 will be listed separately.

A		B	C	D	E	F	G
ADIT-190		*Total*	*Gas, Prod Or Other Related*	*Only Transmission Related*	*Plant Related*	*Labor Related*	*Justification*
Subtotal - p234							
Less FASB 109 Above if not separately removed							
Less FASB 106 Above if not separately removed							
Total							

Instructions for Account 190:
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C
2. ADIT items related only to Transmission are directly assigned to Column D
3. ADIT items related to Plant and not in Columns C & D are included in Column E
4. ADIT items related to labor and not in Columns C & D are included in Column F
5. Deferred income taxes arise when items are included in taxable income in different periods than they are included in rates, therefore if the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded
6. Re: Form 1-F filer: Sum of subtotals for Accounts 282 and 283 should tie to Form No. 1-F, p.113.57.c

Attachment 1 - Accumulated Deferred Income Taxes (ADIT) Worksheet

A	B	C	D	E	F	G
ADIT- 282	Total	Gas, Prod Or Other	Only Transmission Related	Plant Related	Labor Related	Justification
Subtotal - p275 (Form 1-F filer: see note 6 below					0	
Less FASB 109 Above if not separately removed						
Less FASB 106 Above if not separately removed						
Total					0	

Instructions for Account 282:
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C
2. ADIT items related only to Transmission are directly assigned to Column D
3. ADIT items related to Plant and not in Columns C & D are included in Column E
4. ADIT items related to labor and not in Columns C & D are included in Column F
5. Deferred income taxes arise when items are included in taxable income in different periods than they are included in rates, therefore if the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded
6. Re: Form 1-F filer: Sum of subtotals for Accounts 282 and 283 should tie to Form No. 1-F, p.113.57.c

Attachment 1 - Accumulated Deferred Income Taxes (ADIT) Worksheet

A	B	C	D	E	F	G
ADIT-283	Total	Gas, Prod Or Other Related	Only Transmission Related	Plant Related	Labor Related	Justification
Subtotal - p277 (Form 1-F filer: see note 6, below						
Less FASB 109 Above if not separately removed						
Less FASB 106 Above if not separately removed						
Total						

Instructions for Account 283:
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C
2. ADIT items related only to Transmission are directly assigned to Column D
3. ADIT items related to Plant and not in Columns C & D are included in Column E
4. ADIT items related to labor and not in Columns C & D are included in Column F
5. Deferred income taxes arise when items are included in taxable income in different periods than they are included in rates, therefore if the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded
6. Re: Form 1-F filer: Sum of subtotals for Accounts 282 and 283 should tie to Form No. 1-F, p.113.57.c

Attachment 1- Accumulated Deferred Income Taxes (ADIT) Workshee

ADITC-255

			Balance	Amortization	
1	Rate Base Treatment				
2	Balance to Attachment 1, Page 1, Transmission Related ADIT 255,				One or the other but not both.
3	Amortization				
4	Amortization to line 115 of Appendix A			-	
5	Total			-	
6	Total Form No. 1 (p 266 & 267)			-	
7	Difference /1		-	-	

/1 Difference must be zero

Arizona Public Service Company

Attachment 2 - Taxes Other Than Income Worksheet

	Other Taxes	*Page 263 Col (i)*	*Allocator*	*Allocated Amount*
	Plant Related		***Gross Plant Allocator***	
1	Transmission Personal Property Tax (directly assigned to Transmission)		100%	$ -
2	Capital Stock Tax		0.0000%	$ -
3	Gross Premium (insurance) Tax		0.0000%	$ -
4	PURTA		0.0000%	$ -
5	Corp License		0.0000%	$ -
			0.0000%	$ -
	Total Plant Related	0		0
	Labor Related		***Wages & Salary Allocator***	
6	Federal FICA & Unemployment & state unemployment			
	Total Labor Related	0	0.0000%	0
	Other Included		***Gross Plant Allocator***	
7	Miscellaneous	0		
	Total Other Included	0	0.0000%	0
	Total Included			0
	Currently Excluded			
8	Use & Sales Tax	0		
9	Adjust state and local tax reserve			
10	Other Sales & Use Tax	0		
11	Other Personal Property Tax (excluded)			
12				
13				
14				
15				
16				
17				
18				
19				
20				-
21	Total "Other" Taxes (included on p. 263)	0		
22	Total "Taxes Other Than Income Taxes" - acct 408.10 (p. 114.14)			
23	Difference	-		

Criteria for Allocation:

A Other taxes that are incurred through ownership of plant including transmission plant will be allocated based on the Gross Plant Allocator. If the taxes are 100% recovered at retail they will not be included

B Other taxes that are incurred through ownership of only general or intangible plant will be allocated based on the Wages and Salary Allocator. If the taxes are 100% recovered at retail they will not be included

C Other taxes that are assessed based on labor will be allocated based on the Wages and Salary Allocator

D Other taxes except as provided for in A, B and C above, that are incurred and (1) are not fully recovered at retail or (2) are directly or indirectly related to transmission service will be allocated based on the Gross Plant Allocator; provided, however, that overheads shall be treated as in footnote B above

E Excludes prior period adjustments in the first year of the formula's operation and reconciliation for the first year

Arizona Public Service Company

Attachment 3 - Revenue Credit Workpaper

	Account 454 - Rent from Electric Property		
1	Rent from Electric Property - Transmission Related (Note 3)		-
2	Total Rent Revenues	(Sum Lines 1)	-
	Account 456 - Other Electric Revenues (Note 1)		
3	Scheduling, System Control & Dispatch (Ancillary Service)	p398 line 1 column g	
4	Net revenues associated with Network Integration Transmission Service (NITS) for which the load is not included in the divisor (Note 4)		
5	Point to Point Service revenues for which the load is not included in the divisor received by Transmission Owner (Note 4)		-
6	Transitional Revenue Neutrality (Note 1)		
7	Transitional Market Expansion (Note 1)		
8	Professional Services (Note 3)		-
9	Revenues from Directly Assigned Transmission Facility Charges (Note 2)		-
10	Rent or Attachment Fees associated with Transmission Facilities (Note 3)		-
11	Gross Revenue Credits	(Sum Lines 2-10)	-
12	Line 17g		-
13	Total Revenue Credits		-

Revenue Adjustment to determine Revenue Credit

14 Note 1: All revenues related to transmission that are received as a transmission owner (i.e., not received as a LSE), for which the cost of the service is recovered under this formula, except as specifically provided for elsewhere in this Attachment or elsewhere in the formula will be included as a revenue credit or included in the peak on line 171 of Appendix A.

15 Note 2: If the costs associated with the Directly Assigned Transmission Facility Charges are included in the Rates, the associated revenues are included in the Rates. If the costs associated with the Directly Assigned Transmission Facility Charges are not included in the Rates, the associated revenues are not included in the Rates.

16 Note 3: Ratemaking treatment for the following specified secondary uses of transmission assets: (1) right-of-way leases and leases for space on transmission facilities for telecommunications; (2) transmission tower licenses for wireless antennas; (3) right-of-way property leases for farming, grazing or nurseries; (4) licenses of intellectual property (including a portable oil degasification process and scheduling software); and (5) transmission maintenance and consulting services (including energized circuit maintenance, high-voltage substation maintenance, safety training, transformer oil testing, and circuit breaker testing) to other utilities and large customers (collectively, products). Company will retain 50% of net revenues consistent with Pacific Gas and Electric Company, 90 FERC ¶ 61,314. Note: in order to use lines 17a - 17g, the utility must track in separate subaccounts the revenues and costs associated with each secondary use (except for the cost of the associated income taxes).

17a	Revenues included in lines 1-11 which are subject to 50/50 sharing.		-
17b	Costs associated with revenues in line 17a		-
17c	Net Revenues (17a - 17b)		-
17d	50% Share of Net Revenues (17c / 2)		-
17e	Costs associated with revenues in line 17a that are included in FERC accounts recovered through the formula times the allocator used to functionalize the amounts in the FERC account to the transmission service at issue.		-
17f	Net Revenue Credit (17d + 17e)		-
17g	Line 17f less line 17a		-
18	Note 4: If the facilities associated with the revenues are not included in the formula, the revenue is shown here but not included in the total above and is explained in the Cost Support; for example revenues associated with distribution facilities.		-
19	Amount offset in line 4 above		
20	Total Account 454 and 456		-
		Composite Tax Rate	0.00%

Arizona Public Service Company

Attachment 4 - Calculation of 100 Basis Point Increase in ROE

A	100 Basis Point increase in ROE and Income Taxes		Line 12 + Line 23	-
B	100 Basis Point increase in ROE			1.00%
Return Calculation				
1	Rate Base		Appendix A, Line 51	-
2	Debt %		Appendix A, Line 99	0.0%
3	Preferred %		Appendix A, Line 100	0.0%
4	Common %		Appendix A, Line 101	0.0%
5	Debt Cost		Appendix A, Line 102	0.00%
6	Preferred Cost		Appendix A, Line 103	0.00%
7	Common Cost	Appendix A % plus 100 Basis Pts	Appendix A, Line 104 + 1%	11.75%
8	Weighted Cost of Debt		Appendix A, Line 105	-
9	Weighted Cost of Preferred		Appendix A, Line 106	-
10	Weighted Cost of Common		Line 4 * Line 7	0.0000
11	**Total Return (R)**		Sum Lines 8 to 10	**0.0000**
12	**Investment Return = Rate Base * Rate of Return**		Line 11 * Line 1	**0**
Composite Income Taxes				
	Income Tax Rates			
13	FIT=Federal Income Tax Rate		Appendix A, Line 110	0.00%
14	SIT=State Income Tax Rate or Composite		Appendix A, Line 111	0.00%
15	p (percent of federal income tax deductible for state purposes)		Appendix A, Line 112	0.00%
16	T =1 - {[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p)} =		Appendix A, Line 113	0.00%
17	T/ (1-T)		Appendix A, Line 114	0.00%
	ITC Adjustment			
18	Amortized Investment Tax Credit		Appendix A, Line 115	-
19	1/(1-T)		Appendix A, Line 116	0.0000%
20	Net Plant Allocation Factor		Appendix A, Line 117	0.0000%
21	**ITC Adjustment Allocated to Transmission**		Appendix A, Line 118	**0**
22	**Income Tax Component = CIT=(T/1-T) * Investment Return * (1-(WCLTD/R)) =**		Line 17*Line 12*(1-(Line 8/Line 11))	**-**
23	**Total Income Taxes**		**Line 21 + 22"**	**-**

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Attachment 5 - Cost Support

Plant in Service Worksheet

Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions				Details
Calculation of Transmission Plant In Servic	Source		**Balance For True up**	**Balance for Estimate**
December	p206.58.b	2013		
January	company records	2014		
February	company records	2014		
March	company records	2014		
April	company records	2014		
May	company records	2014		
June	company records	2014		
July	company records	2014		
August	company records	2014		
September	company records	2014		
October	company records	2014		
November	company records	2014		
December	p207.58.g	2014		-
Transmission Plant In Service			-	-
Calculation of Distribution Plant In Servic	Source			
December	p206.75.b	2013		
January	company records	2014		
February	company records	2014		
March	company records	2014		
April	company records	2014		
May	company records	2014		
June	company records	2014		
July	company records	2014		
August	company records	2014		
September	company records	2014		
October	company records	2014		
November	company records	2014		
December	p207.75.g	2014		-
Distribution Plant In Service			-	-
Calculation of Intangible Plant In Servic	Source			
December	p204.5.b	2013		
December	p205.5.g	2014		-
Intangible Plant In Service			-	-
Calculation of General Plant In Service	Source			
December	p206.96.b	2013		
December	p207.96.g	2014		-
General Plant In Service			-	-
Calculation of Production Plant In Servic	Source			
December	p204.46b	2013		
January	company records	2014		
February	company records	2014		
March	company records	2014		
April	company records	2014		
May	company records	2014		
June	company records	2014		
July	company records	2014		
August	company records	2014		
September	company records	2014		
October	company records	2014		
November	company records	2014		
December	p205.46.g	2014		-
Production Plant In Service			-	-
Total Plant In Service	Sum of averages above		0	0

Accumulated Depreciation Workshee

Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions				Details
Calculation of Transmission Accumulated Depreciatio	Source		**Balance For True up**	**Balance for Estimate**
December	Prior year p219.25	2013		
January	company records	2014		
February	company records	2014		
March	company records	2014		
April	company records	2014		
May	company records	2014		
June	company records	2014		
July	company records	2014		
August	company records	2014		
September	company records	2014		
October	company records	2014		
November	company records	2014		
December	p219.25	2014		-
Transmission Accumulated Depreciatior			-	-
Calculation of Distribution Accumulated Depreciatio	Source			
December	Prior year p219.26	2013		
January	company records	2014		
February	company records	2014		
March	company records	2014		
April	company records	2014		
May	company records	2014		
June	company records	2014		
July	company records	2014		
August	company records	2014		
September	company records	2014		
October	company records	2014		
November	company records	2014		
December	p219.26	2014		-
Distribution Accumulated Depreciatior			-	-
Calculation of Intangible Accumulated Depreciatio	Source			
December	Prior year p200.21.c	2013		
December	p200.21c	2014		-
Accumulated Intangible Depreciatior			-	-
Calculation of General Accumulated Depreciatio	Source			
December	Prior year p219.28	2013		
December	p219.28	2014		-
Accumulated General Depreciatior			-	-
Calculation of Production Accumulated Depreciatio	Source			
December	Prior year p219.20 thru 219.24	2013		
January	company records	2014		
February	company records	2014		
March	company records	2014		
April	company records	2014		
May	company records	2014		
June	company records	2014		
July	company records	2014		
August	company records	2014		
September	company records	2014		
October	company records	2014		
November	company records	2014		
December	p219.20 thru 219.24	2014		-
Production Accumulated Depreciatior			-	-
Total Accumulated Depreciatior	Sum of averages above		0	0

Electric / Non-electric Cost Support

	Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions		Form 1 Amount	Electric Portion	Non-electric Portion	Details
	Plant Allocation Factors					
	Accumulated Intangible Depreciation	p200.21.c				
	Materials and Supplies					
	Undistributed Stores Exp	p227.16c				
	Depreciation Expense					
	Intangible Amortization	p336.1d&e				

Transmission / Non-transmission Cost Suppor

	Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions			Beg of year	End of Year	End of Year for Est. Average for Final	Details
38	**Plant Held for Future Use**	p214	Total			-	
			Non-transmission Related				
			Transmission Related			-	

PBOPs Cost Support

	Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions		Form 1 Amount	PBOBs	All other	Details
56	**Allocated General Expenses**					
	Account 926 (2016)		64,872,042	(12,343,744)	77,215,786	Base year
	Account 926 (Current Year)	p323.187b			-	Current Year
	Change in PBOP Expense					

EPRI Dues Cost Support

	Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions		Form 1 Amount	EPRI Dues	Details
	Allocated General Expenses		A&G		
60	Less EPRI Dues	p352-353			

Regulatory Expense Related to Transmission Cost Suppor

	Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions		Form 1 Amount	Transmission Related	Non-transmission Related	Details
	Directly Assigned A&G					
64	Regulatory Commission Exp Account 928	p350.1 thru 350.21				

Safety Related Advertising Cost Suppor

	Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions		Form 1 Amount	Safety Related	Non-safety Related	Details
	Directly Assigned A&G					
68	General Advertising Exp Account 930.1	p323.191.b				

MultiState Workpaper

Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions	State 1	State 2	State 3	State 4	State 5	Composite
Income Tax Rates						
	AZ	NM	CA	TX	UT	
111 SIT=State Income Tax Rate or Composite						

Education and Out Reach Cost Suppor

Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions	Form 1 Amount	Education & Outreach	Other	Details
Directly Assigned A&G				
65 General Advertising Exp Account 930.1 p323.191.b				-

Excluded Gross Plant Cost Suppor

Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions	Excluded Gross Transmission Facilities	Description of the Facilities
Adjustment to Remove Revenue Requirements Associated with Excluded Transmission Facilitie		
131 Excluded Gross Transmission Facilities		**General Description of the Facilities**
Instructions:	**Enter $**	**None**
1 Remove all investment below 69 kV facilities, including the investment allocated to distribution of a dual function substation, generator, interconnection and local and direct assigned facilities for which separate costs are charged and step-up generation substation included in transmission plant in service.		**Step Up Xfmrs**
		West Phoenix to Lincoln Substation 345 kV transmission line
2 If unable to determine the investment below 69kV in a substation with investment of 69 kV and higher as well as below 69 kV, the following formula will be used: **Example**	**Or Enter $**	
A Total investment in substation 1,000,000		
B Identifiable investment in Transmission (provide workpapers) 500,000		
C Identifiable investment in Distribution (provide workpapers) 400,000		
D Amount to be excluded (A x (C / (B + C))) 444,444		
		Add more lines if necessary

Transmission Related Account 242 Reserves

Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions			Beg of year	End of Year	End of Year for Est. Average for Final	Allocation	Trans Related	Details
35 Transmission Related Account 242 Reserves (exclude current year environmental site related reserves)				Enter $				
Directly Assignable to Transmission								
	Deposits							
	FERC Provision for Rate Refund							
	Land Rights							
		Sum Directly Transmission	-	-	-	100%	-	
Total Not Directly Assignable to Transmission		(A) Total Not Directly Transmission	-	-	-			
Labor Related, or General plant related								
	Vacation Accrual - Old Plan				-			
	Accrued Payroll				-			
	Medical - Dental				-			
	Short Term Software License				-			
	Workmen's Compensation Liability				-			
	Vacation Accrual				-			
	Vacation Accrual - Participants				-			
	SFAS 112				-			
	Incentive Accrual				-			
	Severance				-			
	SERBP				-			
	Deferred Compensation				-			
		(B) Sum Labor Related	-	-	-	0.0000%	-	
Other								
		(A) - (B)	-	-	-	0.00%	-	
Total Transmission Related Reserves			-	-	check		-	

Prepayments

	Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions		Beg of year	End of Year	End of Year for Est. Average for Final	Allocation	Trans Related	Details
36	**Prepayments**							
	Labor Related	Worksheet 5	-	-	-	0.000%	-	-
	Plant Related	Worksheet 5	-	-	-	0.000%	-	-
	100% Transmission Related	Worksheet 5	-	-	-	100.000%	-	-
	Other (Excluded)	Worksheet 5	-	-	-	0.000%	-	-
							-	-

Materials & Supplies

	Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions		Beg of year	End of Year	End of Year for Est. Average for Final	Details
39	Stores Expense Undistributed	p227.16				
			-	-	-	
42	Transmission Materials & Supplies	p227.8			-	

Outstanding Network Credits Cost Suppor

	Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions				Beg of year	End of Year	End of Year for Est. Average for Final	Description of the Credits
	Network Credits							
47	Outstanding Network Credits							**General Description of the Credits**
	December	Account 252	2013		-			
	December	Account 252	2014			-		
	Average Beginning and End of Year			-			-	
48	Accumulated Depreciation Associated with Facilities with Outstanding Network Credits							
	December	Account 252	2013		-			
	December	Account 252	2014			-		
	Average Beginning and End of Year			-			-	

Interest on Outstanding Network Credits Cost Suppor

	Attachment A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions	Interest on Network Credits	Description of the Interest on the Credits
137	Interest on Network Credits		
			Add more lines if necessary

Arizona Public Service Company

Attachment 6 - Estimate and Reconciliation Worksheet

Exec Summary

Step	Month	Year	Action
1	April	Year 2	TO populates the formula with Year 1 data from FERC Form 1.
2	April	Year 2	TO estimates all transmission Cap Adds, Retirements, and associated depreciation for Year 2 based on Months expected to be in service in Year 2.
3	April	Year 2	TO adds estimates from Step 2 to Appendix A
4	May	Year 2	Post results of Step 3 on APS web site.
5	June	Year 2	Results of Step 3 go into effect.
6	April	Year 3	TO populates the formula with Year 2 data from FERC Form 1.
7	April	Year 3	Reconciliation - TO calculates the true up amount by subtracting the results of Step 6 by Step 3.
8	April	Year 3	Reconciliation - TO calculates interst and ammortization associated with the true up calculated in Step 7 and applies that amount to line 151 of the formula.
9	April	Year 3	TO estimates all transmission Cap Adds, Retirements, CWIP and associated depreciation for Year 3 based on Months expected to be in service and monthly CWIP balances in Year 3.
10	April	Year 3	TO adds 13 month average Cap Adds and retirements (line 16 and 24) to the Formula.
11	May	Year 3	Post results of Step 10 on APS web site.
12	June	Year 3	Results of Step 9 go into effect for the Rate Year 2.

Reconciliation details

1 April Year 2 TO populates the formula with Year 1 data from FERC Form 1.

Rev Req based on Year 1 data — Must run Appendix A to get this number (without estimated cap adds) from Appendix A

2 April Year 2 TO estimates all transmission Cap Adds, Retirements, and associated depreciation for Year 2 based on Months expected to be in service in Year 2.

	(A) Other Project PIS	(B) other retirements	(C) Project X PIS	(D) Project X PIS retirements	(E) Accumulated Balance: Other Project PIS	(F) Project X PIS	(G) Total
Dec					0	0	0
Jan				0	-	-	-
Feb				0	-	-	-
Mar				0	-	-	-
Apr				0	-	-	-
May				0	-	-	-
Jun				0	-	-	-
Jul				0	-	-	-
Aug				0	-	-	-
Sep				0	-	-	-
Oct				0	-	-	-
Nov				0	-	-	-
Dec				0	-	-	-
Total	-	-	-	-	-	-	-

13 month avg of new plant additions = Col F + Col H — - — goes to line 16 of the formula

	(I) =F Total Other Project PIS	(J) Composite Trans Deprec Rate	(K) = I * J Depreciation Expense	(L) Accum Deprec	(M) = H Total Project X PIS	(N) Composite Trans Deprec Rate	(O) = L * M Depreciation Expense	(P) Accum Deprec
			-	-				
Jan	0	0.00%	-	-	-	0.00%	-	-
Feb	0	0.00%	-	-	-	0.00%	-	-
Mar	0	0.00%	-	-	-	0.00%	-	-
Apr	0	0.00%	-	-	-	0.00%	-	-
May	0	0.00%	-	-	-	0.00%	-	-
Jun	0	0.00%	-	-	-	0.00%	-	-
Jul	0	0.00%	-	-	-	0.00%	-	-
Aug	0	0.00%	-	-	-	0.00%	-	-
Sep	0	0.00%	-	-	-	0.00%	-	-
Oct	0	0.00%	-	-	-	0.00%	-	-
Nov	0	0.00%	-	-	-	0.00%	-	-
Dec	0	0.00%	-	-	-	0.00%	-	-
Total			-	-			-	-

13 mo. Avg accumulated depreciation = Col L + Col P: - goes to line 24 of the formula

Depreciation Expense = Col K + Col O - goes to line 74 of the formula

3 April Year 2 TO adds estimates from Step 2 to Appendix A

Include inputs to Appendix A Lines 16, 24, and 74

4 May Year 2 Post results of Step 3 on APS web site.

$ - Must run Appendix A to get this number (with results of step 2)

5 June Year 2 Results of Step 3 go into effect.

-

6 April Year 3 TO populates the formula with Year 2 data from FERC Form 1.

Rev Req based on Prior Year data step 6 file

7 April Year 3 Reconciliation - TO calculates the true up amount by subtracting the results of Step 6 by Step 3.

	Prior Year True Up	First Year True up	Total True Up
Results of Step 6	$ -		$ -
Results of Step 5	$ -		$ -
True up w/o interest			$ -

True Up to be recovered	$ -	Divide True up w/o interest by the number of months the rate was in effect and place that result in the month that the rate went in effect in the interest calculation below

8 April Year 3

Reconciliation - TO calculates interst and ammortization associated with the true up calculated in Step 7 and applies that amount to line 151 of the formula.

Interest on Amount of Refunds or Surcharges

Interest 35.19a for 1st quarter Current Yr

Month	Yr	1/12 of Step 7	Interest 35.19a for and 35.19 b March Current Yr	Months	Interest	Refunds Owed
Jun	Year 1	-	0.00%	11.5	-	-
Jul	Year 1	-	0.00%	10.5	-	-
Aug	Year 1	-	0.00%	9.5	-	-
Sep	Year 1	-	0.00%	8.5	-	-
Oct	Year 1	-	0.00%	7.5	-	-
Nov	Year 1	-	0.00%	6.5	-	-
Dec	Year 1	-	0.00%	5.5	-	-
Jan	Year 2	-	0.00%	4.5	-	-
Feb	Year 2	-	0.00%	3.5	-	-
Mar	Year 2	-	0.00%	2.5	-	-
Apr	Year 2	-	0.00%	1.5	-	-
May	Year 2	-	0.00%	0.5	-	-
Total		-				-

		Balance	Interest	Amort	Balance
Jun	Year 2	-	0.00%	-	-
Jul	Year 2	-	0.00%	-	-
Aug	Year 2	-	0.00%	-	-
Sep	Year 2	-	0.00%	-	-
Oct	Year 2	-	0.00%	-	-
Nov	Year 2	-	0.00%	-	-
Dec	Year 2	-	0.00%	-	-
Jan	Year 3	-	0.00%	-	-
Feb	Year 3	-	0.00%	-	-
Mar	Year 3	-	0.00%	-	-
Apr	Year 3	-	0.00%	-	-
May	Year 3	-	0.00%	-	-
Total with interest				-	

The difference between the Reconciliation in Step 6 and the forecast in Prior Year with interest -

9 April Year 3 TO estimates all transmission Cap Adds, Retirements, CWIP and associated depreciation for Year 3 based on Months expected to be in service and monthly CWIP balances in Year 3.
Note: Jan and Feb are actuals, Mar-Dec forecasted. Retirements are not forecasted.

	(A) Other Project PIS	(B) other retirements	(C) Project X PIS	(D) Project X PIS retirements	(E) Accumulated Balance Other Project PIS	(F) Project X PIS	(G) Total
Dec					0	0	0
Jan				0	-	-	-
Feb				0	-	-	-
Mar				0	-	-	-
Apr				0	-	-	-
May				0	-	-	-
Jun				0	-	-	-
Jul				0	-	-	-
Aug				0	-	-	-
Sep				0	-	-	-
Oct				0	-	-	-
Nov				0	-	-	-
Dec				0	-	-	-
Total	-	-	-		-	-	-

13 month avg of new plant additions = Col F + Col H - goes to line 16 of the formula

	(I) =F Total Other Project PIS	(J) Composite Trans Deprec Rate	(K) = I * J Depreciation Expense	(L) Accum Deprec	(M) = H Total Project X PIS	(N) Composite Trans Deprec Rate	(O) = L * M Depreciation Expense	(P) Accum Deprec
			-	-				
Jan	0	0.00%	-	-	-	0.00%	-	-
Feb	0	0.00%	-	-	-	0.00%	-	-
Mar	0	0.00%	-	-	-	0.00%	-	-
Apr	0	0.00%	-	-	-	0.00%	-	-
May	0	0.00%	-	-	-	0.00%	-	-
Jun	0	0.00%	-	-	-	0.00%	-	-
Jul	0	0.00%	-	-	-	0.00%	-	-
Aug	0	0.00%	-	-	-	0.00%	-	-
Sep	0	0.00%	-	-	-	0.00%	-	-
Oct	0	0.00%	-	-	-	0.00%	-	-
Nov	0	0.00%	-	-	-	0.00%	-	-
Dec	0	0.00%	-	-	-	0.00%	-	-
Total			-	-			-	-

13 mo. Avg accumulated depreciation = Col L + Col P: - goes to line 24 of the formula
Depreciation Expense = Col K + Col O - goes to line 74 of the formula

10 April Year 3 TO adds 13 month average Cap Adds and retirements (line 110 and 120) to the Formula.
Rev Req based on Year 2 data with estimated Cap Adds, Rets, and Deprec for Year 3 Cap Adds (Step 9) and True up of Year 1 data (Step 8)
Must run App A to get this # (with 13 mo. avg cap adds, depreciation for Year 3 cap adds)

11 May Year 3 Post results of Step 10 on APS web site.
$ -

12 June Year 3 Results of Step 9 go into effect for the Rate Year 2.
- Step 11 plus the difference between the Reconciliation in Step 6 and the forecast in Prior Year with interest

Arizona Public Service Company

Attachment 7 - Transmission Enhancement Charge Worksheet

line #		Formula Line			
1		152	Plus any increased ROE calculated on Attachment 7	$	-
			=Incentive - Revenue Credit for the corresponding rate year		
	Fixed Charge Rate (FCR) if not a CIAC				
2	A	142	Net Plant Carrying Charge without Depreciation		0.0000%
3	B	149	Net Plant Carrying Charge per 100 Basis Point in ROE without Depreciation		0.0000%
4	C		Line B less Line A		0.0000%
	FCR if a CIAC				
5	D	143	Net Plant Carrying Charge without Depreciation, Return, nor Income Taxes		0.0000%

The FCR resulting from Formula in a given year is used for that year only.
Therefore actual revenues collected in a year do not change based on cost data for subsequent years

Beginning = 13 month Plant CWIP or Incentive Plant balance
Deprec = 13 month avg Accumulated Depreciation
Ending = Beginning - Deprec
Revenue= FCR* Ending + Ending

Total = Sum of Revenue for Project CWIP and PIS
Incentive = Total for "W Increased ROE" row
Revenue Credit = Total for "FCR W base ROE" row

	Details		Project A				Project B						
6	Life		-				-						
7	CIAC		No				No						
8	Increased ROE (Basis Points)		0				0						
9	FCR W base ROE		0.000%				0.000%						
10	FCR W increased ROE		0.000%				0.000%						
11	Investment												
12	Annual Depreciation Exp		-				-						
13	13 monthly Avg		-				-						
14		Invest Yr	Beginning	Depreciation	Ending	Revenue [(Beginning + Ending)/2* Line 11]	Beginning	Depreciation	Ending	Revenue [(Beginning + Ending)/2* Line 11]	Total	Incentive	Rev Credit
15	FCR W base ROE	2005	-	-	-	-	-	-	-	-	$ -		$ -
16	W Increased ROE	2005	-	-	-	-	-	-	-	-	$ -	$ -	
17	FCR W base ROE	2006	-	-	-	-					$ -		$ -
18	W Increased ROE	2006	-	-	-	-					$ -	$ -	
19	FCR W base ROE	2007	-	-	-	-					$ -		$ -
20	W Increased ROE	2007	-	-	-	-					$ -	$ -	
21	FCR W base ROE	2008	-	-	-	-					$ -		$ -
22	W Increased ROE	2008	-	-	-	-					$ -	$ -	
23	FCR W base ROE	2009	-	-	-	-					$ -		$ -
24	W Increased ROE	2009	-	-	-	-					$ -	$ -	
25	FCR W base ROE	2010	-	-	-	-					$ -		$ -
26	W Increased ROE	2010	-	-	-	-					$ -	$ -	
27	FCR W base ROE	2011	-	-	-	-					$ -		$ -
28	W Increased ROE	2011	-	-	-	-					$ -	$ -	
29	FCR W base ROE	2012	-	-	-	-					$ -		$ -
30	W Increased ROE	2012	-	-	-	-					$ -	$ -	
31	FCR W base ROE	2013	-	-	-	-					$ -		$ -
32	W Increased ROE	2013	-	-	-	-					$ -	$ -	
33	FCR W base ROE	2014	-	-	-	-					$ -		$ -
34	W Increased ROE	2014	-	-	-	-					$ -	$ -	
35	FCR W base ROE	2015	-	-	-	-					$ -		$ -
36	W Increased ROE	2015	-	-	-	-					$ -	$ -	
37	FCR W base ROE	2016	-	-	-	-					$ -		$ -
38	W Increased ROE	2016	-	-	-	-					$ -	$ -	
39	FCR W base ROE	2017	-	-	-	-					$ -		$ -
40	W Increased ROE	2017	-	-	-	-					$ -	$ -	
41	FCR W base ROE	2018	-	-	-	-					$ -		$ -
42	W Increased ROE	2018	-	-	-	-					$ -	$ -	
43	FCR W base ROE	2019	-	-	-	-					$ -		$ -
44	W Increased ROE	2019	-	-	-	-					$ -	$ -	
45	FCR W base ROE	2020	-	-	-	-					$ -		$ -
46	W Increased ROE	2020	-	-	-	-					$ -	$ -	
47	FCR W base ROE	2021	-	-	-	-					$ -		$ -
48	W Increased ROE	2021	-	-	-	-					$ -	$ -	
49	FCR W base ROE	2022	-	-	-	-					$ -		$ -
50	W Increased ROE	2022	-	-	-	-					$ -	$ -	
51	FCR W base ROE	2023	-	-	-	-					$ -		$ -
52	W Increased ROE	2023	-	-	-	-					$ -	$ -	
53	FCR W base ROE	2024	-	-	-	-					$ -		$ -
54	W Increased ROE	2024				-					$ -	$ -	
55		....		....	.....	....							$ -
56		....	....	.....	.....	....						$ -	$ -

Arizona Public Service Company

Attachment 8 - Depreciation Rates

Plant Account	Depreciation Rates
352.01 - Structures	1.84%
353 - Station Equipment	2.14%
354 - Towers and Fixtures	1.34%
355.01 - Poles and Fixtures - Wood	2.21%
355.02 - Poles and Fixtures - Steel	2.10%
356 - Overhead Conductors and Devices	1.87%
357 - Underground Conduit	1.55%
358 - Underground Conductors and Devices	1.33%

ATTACHMENT H-2

FORMULA RATE IMPLEMENTATION PROTOCOLS

Section 1. Annual Updates

a. The Annual Transmission Revenue Requirements ("ATRR") applicable under Attachment H and the Network Integration Transmission Service and Point-to-Point Transmission Service rates derived therefrom shall be determined and updated annually through the Formula Rate comprising Schedule H-1 of the Tariff and shall be applicable to services provided on and after June 1 of a given calendar year through May 31 of the subsequent calendar year (the "Rate Year").

b. On or before May 15 of each year, APS shall calculate its ATRR, producing the "Annual Update" for the upcoming Rate Year, and post such Annual Update on APS's Open Access Same-time Information System ("OASIS") site (http://www.oasis.oati.com/azps/).

c. If the date for posting the Annual Update falls on a weekend or a holiday recognized by the Federal Energy Regulatory Commission ("FERC" or "Commission"), then the posting shall be due on the next business day. The date on which such posting occurs shall be that year's "Publication Date." Any delay in the Publication Date will result in an equivalent extension of time for the submission of information requests discussed in Section 2.b of these protocols.

d. In addition to posting each Annual Update on APS's OASIS, APS shall provide copies of the Annual Update to the Arizona Corporation Commission ("ACC"), the Arizona Residential Utility Consumer Office ("RUCO"), existing customers under the Tariff, and any other person/entity that requests a copy (collectively "Interested Parties"). Within ten (10) days of the Publication Date, APS shall provide notice of such posting to

Interested Parties, including any consultant designated by an Interested Party and the Commission, through an email "exploder list." Interested Parties can contact APS to subscribe to the exploder list.

e. The Formula Rate is premised upon the following predicates (i) - (iv) ("Fundamental Predicates"):[1]

(i) The FERC's Uniform System of Accounts ("USoA");

(ii) FERC's Form No. 1[2] reporting requirements as applicable;

(iii) FERC's orders establishing generally applicable transmission ratemaking policies, accounting directives and precedents; and

(iv) APS's accounting policies, practices and procedures that are consistent with Sections 1.e.(i) and (iii).

Challenges involving Fundamental Predicates are limited solely to changes in the above-specified Fundamental Predicates that may produce consequences from the application of the Formula Rate subsequent to such change. Challenges involving Fundamental Predicates are not intended to serve as a means of pursuing other revisions to the Formula Rate.

f. The Annual Update for the Rate Year shall:

(i) Be provided in both a Portable Document Format and Microsoft Excel file format with all formulas and links intact;

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[1] Fundamental Predicate(s) are subject to changes in accordance with the procedures provided for in this Attachment H-2 or by the Commission.

[2] If the referenced form is superseded, the successor form(s) shall be utilized and supplemented as necessary to provide equivalent information as that provided in the superseded form. If the referenced form(s) is(are) discontinued, equivalent information as that provided in the discontinued form(s) shall be utilized.

(ii) To the extent specified in the Formula Rate, be based upon data properly recorded in APS's FERC Form No. 1 data for the most recent calendar year and the books and records of APS consistent with the USoA and FERC accounting policies;

(iii) As and to the extent specified in the Formula Rate or through information requests pursuant to Section 2, provide supporting documentation for data not otherwise available in the FERC Form No. 1 that are used in the Formula Rate;[3]

(iv) Provide notice of changes in APS's accounting policies and practices from those in effect for the calendar year upon which the immediately preceding Annual Update was based ("Accounting Changes");[4]

(v) Disclose any Accounting Changes or adjustments that affect inputs to the Formula Rate;

(vi) Identify items included in the Formula Rate at an amount other than on a historical cost basis (*e.g.*, fair value adjustments);

(vii) Identify any reorganization or merger transaction and explain the effect of the accounting for such transactions on inputs to the Formula Rate;

(viii) Make note of any aspects of the Formula Rate or its inputs that are the subject of an ongoing dispute under the challenge procedures;

(ix) To the extent accounting changes and other matters affect APS's inputs to its Formula Rate, provide a narrative explanation of the individual impact of those items on charges billed under the Formula Rate;

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[3] It is the intent of the Formula Rate, including the supporting explanations and allocations described therein, that each input to the Formula Rate will be either taken directly from the FERC Form No. 1 or reconcilable to the FERC Form No. 1 by the application of clearly identified and supported information. Where the reconciliation is provided through a separate, supporting worksheet included in the filed Formula Rate template, the inputs to the worksheet must meet this transparency standard, and doing so will satisfy this transparency requirement for the amounts that are output from the worksheet and input to the main body of the Formula Rate.

[4] Such notice may incorporate by reference applicable disclosure statements publicly filed with the state or federal regulatory commissions or other state or federal agencies.

(x) Be subject to review and challenge, in accordance with the procedures set forth in this Attachment H-2, as to whether the input data are properly recorded, with respect to the prudence of the costs and expenditures included for recovery in the Annual Update,[5] and as to the accuracy of the data and the consistency with the Formula Rate, including the terms and procedures in this Attachment H-2, of the charges shown in the Annual Update; and

(xi) Not seek to modify the Formula Rate and shall not be subject to challenge by seeking to modify the Formula Rate (*i.e.*, all such modifications to the Formula Rate, including the items specified in Section 1.g, will require, as applicable, a Federal Power Act Section 205 or Section 206 filing).

g. Formula Rate inputs for (i) rate of return on common equity, (ii) depreciation and amortization rates, (iii) "Post-Employment Benefits Other than Pension" accruals pursuant to Statement of Financial Accounting Standards No. 106, Employers' Accounting for Postretirement Benefits Other than Pensions ("PBOP") charges, and (iv) the amount and amortization period for extraordinary property losses shall be stated values to be used in the Formula Rate until changed pursuant to an FPA filing approved or accepted by the Commission; provided, however, that notwithstanding the foregoing limitations, APS may make a limited issue Section 205 filing to seek to change its amortization/depreciation rates or add new amortization/depreciation rates, PBOP accruals, and extraordinary property losses, in which the sole issue for examination in any such limited issue Section 205 filing shall be whether such proposed changes are just and reasonable, and shall not include other aspects of the Formula Rate.

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[5] Challenges to prudency of costs shall apply the then-existing criteria and evidentiary burdens established in FERC policy. Nothing in these protocols alters or changes those criteria and evidentiary burdens. See also Section 2.b of the protocols.

h. All change(s) to the Fundamental Predicates set forth in Section 1.e above (other than through Ministerial Filings pursuant to Section 4 hereof that update FERC Form 1 or USoA references and do not make substantive changes to the Formula Rate) shall warrant a reassessment of all of the elements of the Formula Rate that are affected by the change or changes in one or more Fundamental Predicates to ensure that the Formula Rate operates together to produce a just, reasonable and not unduly discriminatory or preferential Formula Rate. Changes to the Fundamental Predicates that require a change to the Formula Rate will be perfected by APS through a filing under Federal Power Act Section 205.

i. Any Interested Party challenging the application of the Formula Rate due to a change in one or more of the Fundamental Predicates shall raise the matter with APS. If such changes to the application of the Formula Rate for the current Annual Update are not resolved by March 15, any Interested Party shall have the right to challenge such application of the Formula Rate due to the change(s) in such Fundamental Predicates. The final resolution of any such challenge(s), including interest calculated in accordance with 18 C.F.R. § 35.19a ("FERC's Interest Rate"), (a) shall be effective on June 1 of the year in which the Annual Update was performed; and, (b) shall be applied to the true up for the calendar year upon which the Annual Update is based. Interest on any surcharge shall be calculated using the lower of the FERC's Interest Rate or APS's short-term borrowing rate, if applicable.

j. All data provided pursuant to and in accordance with the procedures set forth in this Attachment H-2 may be used in any challenge to the Annual Update of the Formula Rate.

Section 2. Information Exchange Procedures

Each Annual Update shall be subject to the following review procedures ("Annual Review Procedures"):

a. Each year APS shall organize a meeting or conference call among Interested Parties ("Customer Meeting") during which APS shall present details about its Annual Update. APS shall provide remote access for participation at the Customer Meeting. The Customer Meeting shall also provide Interested Parties the chance to seek information and clarifications from APS about the Annual Update. The Customer Meeting shall take place on or before June 15, or in any event, no later than thirty (30) days after the Publication Date. Notice of the Customer Meeting, including the time, date, location and remote access information shall be posted on APS's OASIS and distributed through the email exploder list no less than ten (10) days before such Customer Meeting.

b. Interested Parties shall have until November 15 following the Publication Date (unless such period is extended with the written agreement of APS or by FERC order) to serve reasonable information and document requests on APS ("Information Exchange Period"). If November 15 falls on a weekend or a holiday recognized by FERC, the deadline for submitting all information and document requests shall be extended to the next business day. Such information and document requests shall be limited to what is necessary to determine (i) if APS has properly applied the Formula Rate and the procedures in this Attachment H-2; (ii) to verify that the input data are properly recorded, to determine the prudence of the costs and expenditures included for recovery in the Annual Update, and as to the accuracy of the data and the consistency with the Formula Rate of the charges shown in the Annual Update; (iii) the effect of any change to the underlying USoA or the

FERC Form 1; or (iv) any other information that may reasonably have substantive effect on the calculation of the charge pursuant to the Formula Rate. In addition, information requests shall not solicit information concerning costs or allocations where the cost or allocation method has been determined by FERC, except that such information requests shall be permitted if they seek to determine if there has been a material change in circumstances, Accounting Change or pursuant to discovery of a calculation error in subsequent Annual Updates.

c. APS shall make a good faith effort to respond to information requests pertaining to the Annual Update within fifteen (15) business days of receipt of such requests and must respond to all information requests by no later than December 15 following the Publication Date, unless the Information Exchange Period is extended by APS or FERC. APS may give reasonable priority to responding to requests from the ACC.

d. APS shall post all information requests from Interested Parties and APS's responses on APS's OASIS; except, however, if responses to information requests include material deemed by APS to be confidential information, such information will not be publicly posted but will be made available to requesting parties pursuant to a confidentiality agreement to be executed by APS and the requesting party.

e. In such years where APS is recovering through its Formula Rates the costs of a regional or inter-regional transmission project that has been selected for regional cost allocation pursuant to the regional transmission planning process described in Attachment E of the Tariff, APS will endeavor to hold a joint meeting with other Transmission Owners who have been allocated costs for the same project through the same regional transmission planning process and who also use transmission Formula Rates. The purpose of the joint

meeting will be to enable all Interested Parties to understand how APS and such other Transmission Owners are recovering the costs of such regional or inter-regional transmission project(s) through their respective transmission Formula Rates. APS will endeavor to hold such joint meeting(s) during the fourth calendar quarter of the year. Notice of joint meetings, including the time, date, and location, shall be posted on OASIS and distributed to the email exploder list no less than ten (10) days prior to such meetings, as well as information for providing remote access to such joint meetings.

Section 3. Challenge Procedures

a. Informal and Formal Challenges shall be subject to the resolution procedures and limitations in this Section 3.

b. Interested Parties shall have until January 15 following the Publication Date (unless such period is extended with the written consent of APS or by FERC order) to review the inputs, supporting explanations, allocations and calculations ("Review Period") and to notify APS in writing, which may be made electronically, of any specific Informal Challenges. If January 15 falls on a weekend or a holiday recognized by FERC, the deadline for submitting all Informal Challenges shall be extended to the next business day. Failure to pursue an issue through an Informal Challenge or to lodge a Formal Challenge regarding any issue as to a given Annual Update shall bar pursuit of such issue with respect to that Annual Update, but shall not bar pursuit of such issue or the lodging of a Formal Challenge as to such issue as it relates to a subsequent Annual Update.

c. A party submitting an Informal Challenge to APS must specify the inputs, supporting explanations, allocations, calculations, or other information to which it objects, and provide an appropriate explanation and documents to support its challenge. APS shall

make a good faith effort to respond to any Informal Challenge within twenty (20) business days of notification of such challenge. If APS disagrees with such challenge, APS will provide the Interested Party(ies) with an explanation supporting the inputs, supporting explanations, allocations, calculations, or other information. No Informal Challenge may be submitted after January 15, and APS must respond to all Informal Challenges by no later than February 15, unless the Review Period is extended by APS or FERC.

d. APS shall post all Informal Challenges from Interested Parties and APS's responses to such Informal Challenges on APS's OASIS; except, however, if Informal Challenges or responses to Informal Challenges include material deemed by APS to be confidential information, such information will not be publicly posted but will be made available to requesting parties pursuant to a confidentiality agreement to be executed by APS and the requesting party.

e. Any changes or adjustments to the Annual Update resulting from the Information Exchange and Informal Challenge process that are agreed to by APS will be reported in the Informational Filing required pursuant to Section 6 of these protocols and will be reflected in the Annual Update for the following Rate Year, as discussed in Section 5 of these protocols.

f. To the extent APS and any Interested Party(ies) are unable to resolve disputes related to information requests submitted in accordance with these Annual Review Procedures, such dispute will be discussed by senior representatives of APS and the Interested Party(ies). If the senior representatives are unsuccessful in resolving the dispute, APS or Interested Party(ies) may petition the FERC to appoint an Administrative Law Judge as a

discovery master ("Formal Challenge"). The discovery master shall have the power to issue binding orders to resolve discovery disputes and compel the production of discovery, as appropriate, in accordance with the Annual Review Procedures and consistent with the FERC's discovery rules.

g. An Interested Party shall have until April 15 following the Review Period (unless such date is extended with the written consent of APS to continue efforts to resolve the Informal Challenge) to make a Formal Challenge with FERC, which shall be served on APS on the date of such filing as specified in Section 3.h below. A Formal Challenge shall be filed in the same docket as APS's Informational Filing discussed in Section 6 of these protocols. APS shall respond to the Formal Challenge by the deadline established by FERC. A party may not pursue a Formal Challenge if that party did not submit an Informal Challenge on any issue during the applicable Review Period.

h. Formal Challenges shall be filed pursuant to these protocols and shall satisfy all of the following requirements. A Formal Challenge shall:

(i) Clearly identify the action or inaction which is alleged to violate the filed rate formula or protocols;

(ii) Explain how the action or inaction violates the filed rate formula or protocols;

(iii) Set forth the business, commercial, economic or other issues presented by the action or inaction as such relate to or affect the Interested Party(ies) filing the Formal Challenge, including, but not limited to: (a) the extent or effect of an Accounting Change; (b) whether the Annual Update fails to include data properly recorded in accordance with these protocols; (c) the proper application of the Formula Rate and procedures in these protocols; (d) the accuracy of data and

consistency with the Formula Rate of the charges shown in the Annual Update; (e) the prudence of actual costs and expenditures; (f) the effect of any change to the Fundamental Predicates; or (g) any other information that may reasonably have substantive effect on the calculation of the charge pursuant to the Formula Rate.

(iv) Make a good faith effort to quantify the financial impact or burden (if any) created for the Interested Party filing the Formal Challenge as a result of the action or inaction;

(v) State whether the issues presented are pending in an existing Commission proceeding or a proceeding in any other forum in which the filing Interested Party is a party, and if so, provide an explanation why timely resolution cannot be achieved in that forum;

(vi) State the specific relief or remedy requested, including any request for stay or extension of time, and the basis for that relief;

(vii) Include all documents that support the facts in the Formal Challenge in possession of, or otherwise attainable by, the filing Interested Party, including, but not limited to, contracts and affidavits; and

(viii) State whether the filing Interested Party utilized the Informal Challenge procedures described in these protocols to dispute the action or inaction raised by the Formal Challenge, and if not, describe why not.

Any Interested Party filing a Formal Challenge must serve a copy of the Formal Challenge to APS. Service to APS must be simultaneous with filing at the Commission. Simultaneous service can be accomplished by electronic mail in accordance with

§ 385.2010(f)(3), facsimile, express delivery, or messenger. The Interested Party filing the Formal Challenge shall serve the individual listed as the contact person on APS's Informational Filing required under Section 4 of these protocols.

i. Informal and Formal Challenges, except those related to Accounting Changes or Fundamental Predicates, are not intended to serve as a means of pursuing other changes to the Formula Rate. Informal and Formal Challenges shall be limited to all issues that may be necessary to determine: (i) the extent or effect of an Accounting Change; (ii) whether the Annual Update fails to include data properly recorded in accordance with these protocols; (iii) the proper application of the Formula Rate and procedures in these protocols; (iv) the accuracy of data and consistency with the Formula Rate of the charges shown in the Annual Update; (v) the prudence of actual costs and expenditures; (vi) the effect of any change to the Fundamental Predicates; or (vii) any other information that may reasonably have substantive effect on the calculation of the charge pursuant to the Formula Rate.

j. It is recognized that resolution of Formal Challenges concerning Accounting Changes or Fundamental Predicates may necessitate adjustments to the Formula Rate input data for the applicable Annual Update or changes to the Formula Rate for the applicable Annual Update to achieve a just and reasonable end result consistent with the intent of the Formula Rate.

k. In any proceeding initiated by FERC concerning the Annual Update or in response to a Formal Challenge, APS shall bear the burden, consistent with Section 205 of the Federal Power Act, of proving that it has reasonably applied the terms of the Formula Rate, including the applicable procedures in these protocols, in that year's Annual

Update. Nothing herein is intended to alter the burdens applied by FERC with respect to prudence challenges.

l. Each Annual Update shall become final and no longer subject to challenge pursuant to these challenge procedures by any entity after April 15 if no such challenge has been made and the FERC has not initiated a proceeding to consider the Annual Update. This provision shall in no way limit the right of an interested party, including FERC, to initiate a proceeding at FERC challenging the charges calculated pursuant to the Formula Rate.

m. Except as specifically provided herein, nothing herein shall be deemed to limit in any way the right of APS to file unilaterally, pursuant to Section 205 of the Federal Power Act and the regulations thereunder, to seek to change the Formula Rate or any of its inputs (including, but not limited to, rate of return and transmission incentive rate treatment), or to replace the Formula Rate with a stated rate, or the right of any other party to oppose such changes or to seek changes to the Formula Rate or any of its inputs pursuant to Section 206 of the Federal Power Act and the regulations thereunder.

Section 4. Update of Formula Rate for FERC Form No. 1 and USoA Reference

At such time as APS finds appropriate, it may make a filing with FERC under Federal Power Act Section 205 that updates the FERC Form No. 1 and USoA references in its Formula Rate to reflect any FERC-mandated changes in the format for the FERC Form No. 1 or USoA that do not affect the rates for Transmission Service derived from the Annual Update (the "Ministerial Filing"), which proceeding may not be used to raise issues unrelated to the proposed changes.

Section 5. Changes to Annual Updates

Any changes to the data inputs, including but not limited to revisions to APS's FERC Form No. 1, or as the result of any FERC proceeding to consider the Annual Update, or as a result of the procedures set forth herein, shall be incorporated into the Formula Rate and the charges produced by the Formula Rate (with interest calculated in accordance with FERC's Interest Rate) in the Annual Update for the next effective Rate Year. This reconciliation mechanism shall apply in lieu of mid-Rate Year adjustments and any refunds or surcharges. However, actual refunds or surcharges (with interest) for the then current rate year shall be made in the event that the Formula Rate is replaced by a stated rate for APS.

Section 6. Informational Filings

a. By March 15 of the year following the Publication Date, APS shall submit to FERC an Informational Filing ("Informational Filing") of its Annual Update filed in a new docket. This Informational Filing must include the information that is reasonably necessary to determine: (1) that input data under the Formula Rate are properly recorded in any underlying workpapers; (2) that APS has properly applied the Formula Rate and these procedures; (3) the accuracy of the data and the consistency with the Formula Rate of the Actual Transmission Revenue Requirement and rates under review; and (4) the extent of accounting changes that affect Formula Rate inputs. The Informational Filing must also describe any corrections or adjustments made during the period, and must describe all aspects of the Formula Rate or its inputs that are subject of an ongoing dispute under the Informal or Formal Challenge procedures.

b. Within five (5) days of such Informational Filing, APS shall provide notice of the Informational Filing to Interested Parties through an email exploder list and by posting on APS's OASIS site.

c. Any challenges to the implementation of the Attachment H Formula Rate must be made through the challenge procedures described in Section 3 of these protocols or in a separate complaint proceeding, and not in response to the Informational Filing.

ATTACHMENT I

Cr editwor thiness Pr ocedur es

1. CREDI T ANAL YSIS OVERVI EW

For the purpose of determining the ability of a Transmission Customer to meet its financial obligations related to service under APS's Open Access Transmission Tariff (Tariff), APS shall use the following credit review procedures. This review shall be made in accordance with Section 11 of the Tariff and standard commercial practices. The credit review procedures are outlined in sections 2 and 3. APS may identify any financial security requirements and establish a total credit limit for each applicant. Credit reviews will be performed by APS on at least an annual basis or more frequently as determined by APS.

Transmission Customers may be required to provide and maintain in effect during the term of the Service Agreement security or collateral acceptable to Transmission Provider.

Changes to an applicant's credit approval may take place at any time if information becomes available which reduces the applicant's credit health as determined by the APS credit review procedure. Applicants must also agree to promptly disclose to APS any material changes in their financial status.

If a corporate guarantee is being utilized to establish credit for an applicant, APS will conduct a credit review on the guarantor in the same way as it would the applicant. In such case where a guarantee is provided, the credit limit established for the applicant will not exceed the amount of the guarantee.

2. FI NANCI AL I NFORM ATI ON REQUI REM ENTS

All applicants may be required to submit financial information in order for APS to complete the credit review. If required, the applicant and/or applicant's guarantor (if applicable) should submit the most recent 2 years of audited financial statements. Both annual and quarterly data is required on a go-forward basis. Financial statements should include, as applicable:

1. Annual Report
2. 10K
3. 10Q
4. 8K, if any

If the company is privately held and unable to provide the aforementioned information, the following information will be required:

1. Report of Independent Accountants for each fiscal year
2. Financial Statements, including:

a. Balance Sheet
b. Income Statement
c. Statement of Cash Flows
d. Statement of Stockholder's Equity

3. Notes to Financial Statements

4. Management's Discussion & Analysis (if available)

In the event the above information along with other credit information is inadequate to appropriately assess the entity's creditworthiness, the entity may be asked to provide evidence of its capability to provide collateral instruments.

All submitted information must be in the English language, and financial data denominated in United States currency, and conform to generally accepted accounting principles (GAAP) in the United States. If the offering entity's financial information is consolidated with other entities, then it is the offering entity's responsibility to extract and submit as separate documents all data and information related solely to the offering entity. This must include all financial information, associated notes and all other information that would comprise a full financial report conforming to GAAP.

3. CREDI T SCORI NG M ETHODOL OGY

Upon application for transmission service and throughout the term of transmission service, prospective and existing Transmission Customers may be deemed creditworthy and may not be required to provide credit security so long as the customer is not currently in default under the Tariff.

Prospective and existing Transmission Customers will be deemed creditworthy if they meet the creditworthiness criteria set forth below and they are not currently in default under the Tariff;

A. Feder al Gover nment Agency

The Transmission Customer or its guarantor is a federal government agency and i) its financial obligations under the Tariff are backed by the full faith and credit of the United States, and/or ii) has the ability to raise rates to cover outstanding obligations; or

B. State Gover nment Agency

The Transmission Customer or its guarantor is a state government agency and i) its financial obligations under the Tariff are backed by the full faith and credit of the state, and/or ii) has the ability to raise rates to cover outstanding obligations; or

C. Cr edit Rating Agency Repor ts

In evaluating credit strength APS will review rating agency reports from Standard & Poor's and/or Moody's Investor Service. Senior Unsecured debt ratings will be the basis for analysis. If Senior Unsecured debt ratings are not available, APS will consider using Issuer Ratings. In the case of governmental customers, general obligation or revenue bond ratings may apply. When

the rating agencies provide split ratings on a given applicant, the lower of the two ratings will apply. Credit ratings will be the primary driver of the credit review process accounting for a major percentage of the total financial score. The minimum acceptable unsecured credit rating is Baa3 (Moody's) and BBB-(Standard & Poor's). Exhibit A details the unsecured credit limits which will be issued to entities with credit ratings issued by Standard & Poor's and/or Moody's Investor Service; or

D. Quantitative and Qualitative Scoring Models

Applicants who do not possess the required public credit ratings may qualify for unsecured credit under the APS Quantitative and Qualitative Scoring Models if the final score indicates an investment-grade equivalent credit quality. These models, when used together, will produce a financial score equivalent to the public debt rating. The score produced by the Quantitative Scoring Model will be based purely on financial ratios and metrics derived from an applicant's audited financial statements while the score produced by the Qualitative Scoring Model will be based on non-financial statement related criteria. The quantitative model is detailed in Exhibit B and will be combined with Qualitative factors to determine the final credit score:

The Qualitative Model may include all or some of the following considerations:

Qualitative Scoring Model

a. Regulatory:

- Ability to set rates without seeking regulatory approval ○

Rate History

b. Regional Economic Market:

- Number and composition of members or customers of the applicant ○

Demographics of regional business area

c. Risk Management:

- Exposure to energy price risk for load served by the entity ○

Credit exposure to sub-investment-grade customers

d. Other Non-Financial Measures of Creditworthiness

- Other - e.g., ownership of physical assets.

Credit Limits for Non-Rated Entities

Unsecured credit limits may be granted as a percent of tangible net worth (TNW). The applicable percentage of tangible net worth may be granted to any individual entity according to the following:

Unsecur ed Cr edit Schedule

Final Cr edit Scor e	M aximum TNW%	M aximum Unsecur ed Cr edit L imit*
≤1	3.0%	$20 million
≤2	2.0%	$16 million
≤3	1.0%	$10 million
≤4	0.5%	$4 million
≤5	0%	$0
≤6	0%	$0

* The unsecured credit limit is assigned to estimated payments over a one year period for transmission services.

4. REQUI REMENTS FOR SECURI TY OR COL L ATERAL

If, at any time Transmission customer is required to provide collateral or security:

- The customer must provide an Acceptable Form of Financial Security to APS prior to acceptance of its transmission service request. The amount of the security shall be equal to the lesser of the total charge for service or the charge for 90 days of service and shall be kept in place for the term of the transmission service.

If a Transmission Customer subsequently fails to meet the APS credit requirements during the term of existing transmission service, it shall within 5 business days of notification by APS provide an Acceptable Form of Financial Security. Failure to provide such security will be considered a default. At any time, at the request of the Transmission Customer, APS will provide the detailed credit analysis that serves as the basis for granting or denying unsecured credit to that customer. Upon written request by the Transmission Customer, APS will provide a detailed written explanation for the denial of an unsecured credit limit or change in an unsecured credit limit involving the customer. If customer has reasonable grounds to contest the unsecured credit limit granted by APS, the customer may do so in a detailed written rationale no later than 3 business days following notification of such credit limit. If customer appeal is denied by APS, customer shall have 2 additional business days following written explanation of such denial by APS to post an Acceptable Form of Financial Security.

5. ACCEPTABL E FORM S OF FI NANCI AL SECURI TY

Transmission Customers who are required to post alternate collateral to secure transmission service will be required to post security in the form of either an Irrevocable Letter of Credit or a Cash Deposit. These security forms may be submitted separately or in combinations to constitute the customer's collateral requirement. Terms of issuance of Financial Security are as follows:

A. Irrevocable Letter of Credit

The Irrevocable Letter of Credit shall be in a form reasonably acceptable to APS. The financial institution issuing the Irrevocable Letter of Credit must have a minimum corporate debt rating of "A-" by S&P and A3 by Moody's at all times that the Irrevocable Letter of Credit is outstanding. All costs associated with obtaining an Irrevocable Letter of Credit will be the sole responsibility of the posting party.

An Irrevocable Letter of Credit should remain in effect for a minimum of 30 days beyond the termination of service. For customers who extend a letter of credit for less than 30 days beyond the term of service, the issuing financial institution must provide a notice of renewal to the transmission provider at least 45 days prior to the Irrevocable Letter of Credit's expiration date. If the issuing financial institution cannot provide such notice, the customer must replace the Irrevocable Letter of Credit with a cash deposit within 30 days of the expiration of the Irrevocable Letter of Credit. Failure to post the required collateral instruments in the required time periods will result in a default by the Transmission Customer.

B. Cash Deposit:

A cash deposit in the amount of the collateral requirement may be posted as a means of Financial Security. Cash means U.S. dollars held by, or on behalf of, a Party as Performance Assurance and which shall be, for purposes of obtaining and perfecting a security interest hereunder, treated as "money" as defined in the UCC. For all purposes hereunder, Financial Security in the form of Cash is a margin payment within the meaning of the Bankruptcy Code, 11 U.S.C. § 101 et seq., including but not limited to sections 101(38), 362(b)(6), 546(e), 548(d), and 556 thereof. Cash deposits will be held in an interest bearing account and all interest will accrue to the customer.

Exhibit A

Credit Limits for Entities with S&P and/or Moody's Credit Ratings

Credit Rating (Senior Unsecured or Issuer)	Credit Limit*
AAA/Aaa	$20 million
AA+/Aa1	$16 million
AA/Aa2	$16 million
AA-/Aa3	$16 million
A+/A1	$10 million
A/A2	$10 million
A-/A/3	$8 million
BBB+/Baa1	$8 million
BBB/Baa2	$4 million
BBB-/Baa3	$4 million
BB+ and below/Ba1 and below	$0

Any rating on Negative Watch by either Moody's Investor Service or Standard & Poor's will automatically default to the next lowest ratings level.

*The unsecured credit limit is assigned to estimated payments over a one year period for transmission services.

Exhibit B

Quantitative Scoring Model for Entities with no S&P and/or Moody's Credit Ratings Which Have Provided Acceptable Financial Information

Scoring Table						
Weight	10%	15%	25%	25%	10%	15%
Score	Current Ratio	Total Debt / Total Cap	CFFO / Total Debt	EBIT Interest Coverage	Pre-Tax ROE	Tangible Net Worth
6	<.85	>74%	0 to 8%	<.41	0 to 1.3%	$0 to $500 million
5	.85 > 1.0	61% to 74%	8% to 10%	.41 to 1.5	1.3% to 3.4%	$500 million to $1.2 billion
4	1.0 > 1.2	54% to <61%	10% to 18%	1.5 to 2.6	3.4% to 5.5%	$1.2 billion to $1.8 billion
3	1.2 > 1.5	48% to <54%	18% to 23%	2.6 to 3.4	5.5% to 12.6%	$1.8 billion to $3.5 billion
2	1.5 > 2.0	20% to <48%	23% to 28%	3.4 to 3.9	12.6% to 19.7%	$3.5 billion to $7 billion
1	>2.0	0 to <20%	>28%	>3.9	>19.7%	> $7 billion

If financial information has been provided in accordance with Section 2 of the Creditworthiness document the 6 financial ratios listed in the above table will be computed. Each ratio will be assigned a score and will be weighted according to the percentages detailed above the specific ratio. These scores will be added based on their weighted values to calculate combined Quantitative score. The Quantitative score is adjusted for Qualitative Scoring factors detailed in Section 3 of the Creditworthiness document. The Final Score results in a credit limit detailed in the Unsecured Credit Schedule in Section 3.

ATTACHMENT J

Service Agreement For Retail Network Integration Transmission Service

1. This Service Agreement, dated as of_____, is entered into by and between Arizona Public Service Company ("APS" or "Transmission Provider"), an Arizona public service corporation, and_____ ("Transmission Customer").

2. Transmission Customer has been determined by APS to be a Transmission Customer under Part IV of this Tariff and has submitted a Completed Application for Retail Network Integration Transmission Service in accordance with Section 37.2 of this Tariff.

3. Transmission Customer/ has executed a Retail Network Operating Agreement with APS.

4. Service under this Service Agreement shall commence on the later of (1) _____ or (2) the date on which construction of any Direct Assignment Facilities and/or Network Upgrades are completed. Service under this Service Agreement shall terminate on _____

5. Transmission Provider shall provide and Transmission Customer shall take and pay for Retail Network Integration Transmission Service in accordance with the provisions of Part IV of this Tariff, this Service Agreement, and the Retail Network Operating Agreement, as they may be amended from time to time.

   Changes in a Scheduling Coordinator's Retail Network Loads shall be processed in accordance with the Direct Access Service Request provisions of Attachment L.

6. To accommodate retail access, the Scheduling Coordinators shall compensate APS for Retail Network Integration Transmission Service a monthly charge based on the summed total of the individual monthly charges applicable to each of the Scheduling Coordinator's aggregated individual customers.

7. Transmission Provider shall provide and Transmission Customer shall take and pay for the services, as indicated below:

   7.1 Scheduling, System Control and Dispatch Service:

   7.2 Reactive Supply and Voltage Control from Generation Sources Service:

   _____

   _____

7.3 Regulation and Frequency Response Service:

7.4 Energy Imbalance Service:

7.5 Operating Reserve - Spinning Reserve Service:

7.6 Operating Reserve - Supplemental Reserve Service:

7.7 Details of charges for all applicable redispatch costs.

7.8 Generator Imbalance Service:

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8. Any notice or request, other than requests to schedule specific transactions, made to or by either Party regarding this Agreement shall be made to the representative of the other Party as indicated below:

Transmission Provider:

Mailing Address:
Arizona Public Service Company
P.O. Box 53933, Station 3262
Phoenix, Arizona 85072-3933

Overnight Mail:
Arizona Public Service Company
2121 W. Cheryl Drive, MS 3262
Phoenix, Arizona 85021

Prescheduling Telephone No.: (602) 250-1361
Real Time Scheduling Telephone No.: (602) 250-1318

Transmission Customer:

_____

_____

_____

9. The Tariff is incorporated herein and made a part hereof.

10. Payments for Network Integration Transmission Service provided to Transmission Customer by Transmission Provider under this Agreement shall be sent to the name and address indicated on the bill provided to Transmission Customer.

IN WITNESS WHEREOF, the Parties have caused this Service Agreement to be executed by their respective authorized officials.

Transmission Provider:

Signature: _____

Name: _____

Title: _____

Date: _____

Transmission Customer:

Signature: _____

Name: _____

Title: _____

Date: _____

ATTACHMENT K

Standard Form of Retail Network Operating Agreement

THIS RETAIL NETWORK OPERATING AGREEMENT ("Operating Agreement") between Arizona Public Service Company ("APS") and the Scheduling Coordinator ("SC") is made and entered into this ____ day of _____, ____.

1. **Recitals**

1.1 The SC has requested and APS has agreed to provide Retail Network Integration Transmission Service ("Retail Network Service") under APS' Open Access Transmission Tariff ("Tariff" or "OATT");

1.2 APS and the SC have agreed to enter into this Operating Agreement to set forth certain operating requirements and considerations in order for APS to provide the requested Retail Network Service.

NOW, THEREFORE, APS and the SC agree as follows:

2. **Definitions**

Along with the definitions set forth below, the definitions in APS' OATT are hereby incorporated into this Operating Agreement.

2.1 **Data Acquisition Equipment:** Supervisory control and data acquisition ("SCADA"), remote terminal units ("RTUs") to obtain information from a Party's facilities, telephone equipment, leased telephone circuits, fiber optic circuits, and other communications equipment necessary to transmit data to remote locations, and any other equipment or service necessary to provide for the telemetry and control requirements needed in order to provide service in accordance with the Tariff.

2.2 **Data Link:** The direct communications link between the SC's operating center and APS' control center that will enable APS' control center to receive real time telemetry and data from the SC(s) and the SC(s) to receive real time telemetry and data from APS' control center.

2.3 **Metering Equipment:** State-of-the-art high accuracy, solid state kW and kWh meters, metering cabinets, metering panels, conduits, cabling, high accuracy current transformers and high accuracy potential transformers, which directly or indirectly provide input to meters or transducers, meter recording devices (e.g., Solid State Data Receivers), telephone circuits, signal or pulse dividers, transducers, pulse accumulators, and any other metering equipment necessary to implement the provisions of the Tariff. All metering equipment shall be consistent with applicable ACC requirements.

2.4 **On Peak Hours:** The On-Peak hours are the hours during the On Peak Period; the On Peak Period is Monday through Saturday beginning hour ending 0700 through hour ending 2200, Pacific Prevailing Time, excluding NERC-recognized holidays and the day after Thanksgiving. When any of these holidays fall on a Sunday, the following day will be recognized as the holiday.

2.5 **Off Peak Hours:** All hours other than the "On-Peak Hours".

2.6 **Party or Parties:** APS, the SC or both APS and the SC.

2.7 **Protective Equipment:** Protective relays, relaying panels, relaying cabinets, circuit breakers, conduits, cabling, current transformers, potential transformers, coupling capacitor voltage transformers, wave traps, transfer trip and fault recorders, which directly or indirectly provide input to relays, fiber optic communication equipment, power line carrier equipment and telephone circuits, and any other protective equipment necessary to provide reliable electric service consistent with Good Utility Practice as provided for in the Tariff.

3. **Term of Service**

The term of this Operating Agreement between APS and the SC shall be concurrent with the Service Agreement.

4. **Points of Interconnection**

Retail Network Service will be provided by APS in accordance with the Direct Access Service Request process set forth in Attachment L.

Additional studies may be required before approval if a SC requests changes to existing interconnection points. The SC will be responsible for the cost of these studies.

5. **SC Control Area**

5.1 **SC Control Area:** The SC shall: (i) operate as a Control Area and fully comply with all criteria, policies, procedures and requirements of the North American Electric Reliability Council (NERC) and the Western Electricity Coordinating Council (WECC) or (ii) satisfy its Control Area requirements, including all Ancillary Services by contracting with APS; or (iii) satisfy its Control Area requirements, including Ancillary Services, by contracting with another entity which can satisfy those requirements in a manner that is consistent with Good Utility Practice and satisfies, but not be limited to, all criteria, policies, procedures and requirements of NERC and WECC; provided, however, that APS will not require adherence to any such criteria, policies, procedures and requirements to the extent that APS does not itself adhere to such criteria, policies, procedures and requirements. The SC shall plan, construct, operate and maintain its facilities and system in accordance with Good Utility Practice, which shall include, but

not be limited to, all applicable guidelines of the NERC and the WECC, as applicable, as they may be modified from time to time, and any generally accepted practices in the region that are consistently adhered to by APS.

5.2 **Changing Control Areas:** If the SC desires to change how it satisfies its Control Area requirements, the SC must submit a new application for service under the Tariff.

5.3 **Control Area Operations:** APS and the SC (or the SC's host control area entity in the event the SC is in another entity's control area) shall operate and maintain their respective control areas in a manner that will allow APS to safely and reliably operate the transmission system in accordance with the Tariff and with Good Utility Practice, so that either Party shall not unduly burden the other Party; provided, however, that notwithstanding any other provision of the Tariff, APS shall retain the sole responsibility and authority for all operating decisions that could affect the integrity, reliability and security of APS' transmission system.

5.4 **Control Area Equipment:** The SC shall be responsible for the purchase, installation, upgrading, operation, maintenance and replacement of all Data Acquisition Equipment, Metering Equipment, Protection Equipment, and any other associated equipment and software, which may be required by either Party for the SC to operate a Control Area in accordance with Good Utility Practice. APS shall have the right to review and approve such equipment and software as may be required to ensure conformance with Good Utility Practices, prior to its installation.

5.5 **Scheduling:** The procedures to establish use of resources and transmission facilities to meet anticipated loads (including interchange). This service must be obtained from APS any time the SC intends to delivery power or energy into or through APS' system.

Scheduling will be done in accordance with the Protocols in Attachment L, and described in Part IV of the Tariff.

5.6 **Control Area Data:** The Company shall incorporate the SC's Metering Equipment and Data Acquisition Equipment into the Company's energy control center as the Parties determine to be necessary to incorporate the SC's loads and resources into a single Control Area operating within the APS transmission system consistent with the terms and conditions of the Tariff.

5.7 **Regulation:** The SC shall be responsible for insuring its system is operated in a manner to provide for its Retail Network load at all times, and to hold deviations from net interchange schedules to a minimum in accordance with the NERC and the WECC requirements. Additionally, the SC shall comply with the applicable provisions related to Regulation and Frequency Response Service as provided for in Section 3, and Schedule 3 of the Tariff.

5.8 **Data Link Operations:** The selection of real time telemetry and data to be received by APS and the SC as required for reliability, security, economics, and/or monitoring of real-time condition that affect APS' transmission system. This telemetry shall include, but is not limited to, loads, line flows (real and reactive power), voltages, generator output, and breaker status at any of the SC's transmission and generation facilities. To the extent that APS or the SC requires data that is not available from existing equipment, the SC shall, at its own expense, install any Metering Equipment, Data Acquisition Equipment, or other equipment and software necessary for the telemetry to be received by APS or the SC via the Data Link. APS shall have the right to inspect equipment and software associated with the Data Link in order to assure conformance with Good Utility Practice and APS system requirements.

5.9 **Computer Modifications:** Each Party shall be responsible for implementing any computer modifications or changes required to its own computer system(s) as necessary to implement the provisions of the Tariff. APS modifications for this shall be at the SC's expense.

5.10 **Metering:** Retail Network Loads greater than 20 kW (or 100,000 kWh annually) shall be required to have the capability to be metered on an hourly integrated basis in accordance with APS' standards or practices. The SC's actual hourly individual customer Retail Network Load information within APS' service area shall be read during the applicable meter reading cycle date during each billing month and shall be provided to APS by the SC no later than the seventh day following the meter read.

The hourly loads for Retail Network Loads 20 kW or less without interval metering shall be determined using load profiling methodology developed by APS.

5.11 **Real Time System Data Requirements:** The SC shall provide or cause to be provided to APS via the Data Link, at least once every ten (10) seconds with data not being older than twenty (20) seconds, loads, line flows, voltages, generator outputs, breaker status, etc. as necessary for APS to provide service under the Tariff and ensuring the security and reliability of the APS Transmission System.

5.12 **Disturbances:** Each Party shall, insofar as practicable, protect, operate and maintain its respective system and facilities so as to avoid or minimize the likelihood of disturbances which might cause impairment of or jeopardy to service to the SCs of the other Party, or to other interconnected systems.

5.13 **Maintenance Of Control Equipment:** The SC shall, on a regular basis or at APS' request, and at its own expense, test, calibrate, verify, and validate the Metering Equipment, Data Acquisition Equipment, and other equipment or software used to determine Retail Network Load. APS shall have the right to inspect such tests, calibrations, verifications, and validations of the Metering Equipment, Data Acquisition Equipment, and other equipment or software used to determine the Retail Network Load. Upon APS' request, the SC will provide APS a copy of the installation, test, and

calibration records of the Metering Equipment, Data Acquisition Equipment, and other equipment or software. APS shall, at the SC's expense, have the right to monitor the factory acceptance test, the field acceptance test, and the installation of any Metering Equipment, Data Acquisition Equipment, and other equipment or software used to determine the Retail Network Load.

5.14 **Loss of the Data Link**: Whenever an outage of the Data Link occurs, all Parties responsible for the component that experienced a failure should make every effort possible to correct the problem and minimize the outage time. An outage of the data link could result in the SC receiving services from APS that it or a third party would normally provide. If it is determined that the SC received services from APS that it would not normally receive, APS will charge the SC for these services at the rate allowed in the Tariff, prorated for the period of time such services may have been provided.

5.15 **Control Area Costs:** The SC shall be responsible for all costs to establish, operate and maintain the SC's Control Area services, including, but not limited to, engineering, administrative and general expenses, material, and labor expenses associated with the specifications, design, review, approval, purchase, installation, maintenance, modification, repair, operation, replacement, checkouts, testing, upgrading, calibration, removal, relocation of equipment or software.

6. **Operating Requirements**

6.1 **Conditions:** An SC interconnecting with the APS transmission system is obligated to follow the same practices and procedures for interconnection and operation that APS uses for its own loads and resources.

If the SC purchases Ancillary Services from third parties, the SC shall do so in accordance with the Protocols in Attachment Land described in Part IV of the Tariff.

6.2 **Generation**

6.2.1 **SC's Generation:** The SC shall operate its generating resources in a manner consistent with that of APS, including following voltage schedules, unblocked governors, and meeting power factor requirements at the point of interconnection with APS' system and any other such criteria required by NERC and WECC and consistently adhered to by APS.

6.2.2 **Cogeneration and Small Power Production Facilities**: If a Qualifying Facility is located or in the future locates on the system of the SC, and the owner or operator of such Qualifying Facility sells the output of such Qualifying Facility to an entity other than the SC, the delivery of such Qualifying Facility's power shall be subject to and contingent upon transmission arrangements being

established with APS prior to commencement of delivery of any such power and energy.

6.3 **Loss Compensation**: APS's OATT requires the compensation of losses. Losses are based upon the energy applied against each reservation and the loss factors specified in APS's OATT and/or Retail Network Integration Transmission Service Agreement. The SC shall compensate APS through the normal monthly billing. The losses will be monetized at the Hourly Pricing Proxy calculated as described in Schedule 4, Energy Imbalance Service, of the OATT.

6.4 **Voltage Support:** The SC will have sufficient reactive compensation and control to meet the power factor requirements specified below (such range to be adhered to except for momentary deviations or at APS' written consent) at each interconnection of its loads and resources. If the SC does not provide the necessary reactive compensation and control to comply with the objectives described in this section, APS shall have the unilateral right to install such equipment to meet these standards at the SC's expense.

POWER FACTOR REQUIREMENTS
For Service Delivered at Transmission Level Voltage
0.95 (lagging) to 0.95 (leading)
For Service Delivered at Distribution Level Voltage
0.90 (lagging) and in no event leading unless agreed to by APS

6.5 **Operating Reserve:** SC shall provide its Operating Reserve in accordance with the Protocols in Attachment L and described in Part IV of the Tariff.

6.6 **Energy Imbalance**: The SC should operate its system at all times such that energy imbalances are minimized and stay within the acceptable deviation band of plus or minus 1.5%. Correction for the SC's imbalance will be in accordance with the Protocols in Attachment L and described in Part IV of the Tariff.

6.7 **Load Shedding:** APS and the SC shall implement load shedding programs to maintain the reliability and integrity of the electrical system, as provided in Section 41.2 of the Tariff. Load shedding shall include: (1) automatic load shedding; (2) manual deep load shedding; or (3) rotating interruptions of SC load. APS will order load shedding to maintain the relative sizes of load served, unless otherwise required by circumstances beyond the control of APS or SC. Automatic load shedding devices will operate

without notice. When manual deep load shedding or rotating interruptions are necessary, APS will notify SC's dispatchers or schedulers of the required action and the SC shall comply immediately. Compliance will be monitored and audited as determined by the Operating Committee.

7. **Emergency System Operations**

APS and the SC will respond to Emergency System Operations in accordance with the Protocols in Attachment L and described in Part IV of the Tariff.

8. **Redispatch Procedures**

Redispatching to relieve constraints will be in accordance with the Protocols in Attachment L and described in Part IV of the Tariff.

9. **Curtailments**

To the extent that a transmission constraint on the APS Transmission System cannot be relieved through redispatch or other methods, APS will curtail schedules across the constrained area in accordance with the Protocols in Attachment Land described in Part IV of the Tariff.

10. **Maintenance of Facilities**

10.1 **Notification:** The Operating Committee shall establish procedures to coordinate the maintenance schedules of generating resources, transmission equipment, substation equipment, data link equipment, data acquisition equipment, protective equipment and any other equipment for which maintenance must be scheduled for reliability or economic reasons. By September 1 of each year, the SC shall provide to APS the maintenance schedules and planned outages for the next year, this information shall be updated at least thirty (30) days in advance of the date specified for the forecasted maintenance.

10.2 The SC shall obtain concurrence from APS at least three (3) work days before beginning any scheduled maintenance of its facilities.

10.3 The SC shall obtain clearance from APS when SC is ready to begin maintenance on a Retail Network resource, transmission line, or substation.

10.4 The SC shall immediately notify APS at the time when any unscheduled or forced outages occur and again when such unscheduled or forced outages end.

10.5 The SC shall notify and coordinate with APS prior to reparalleling to the Retail Network resource, transmission line, or substation with the transmission system.

11. Network Operating Committee

11.1 **Network Operating Committee:** Each Party shall appoint a member and an alternate(s) to the Network Operating Committee and to notify the other Party of such appointment(s) in writing. Such appointments may be changed at any time by similar written notice. The Network Operating Committee shall meet as necessary and review the duties set forth herein. The Network Operating Committee shall hold meetings at the request of either Party at a time and place agreed upon by the members of the Network Operating Committee. The Network Operating Committee shall meet once each year to discuss the information exchanged pursuant to this Section. Each member and alternate shall be a responsible person working with the day-to-day operations of each respective power system. The Network Operating Committee shall represent the Parties in all operational matters that may be delegated to it by mutual agreement of the Parties hereto.

11.2 **Responsibilities:** The Network Operating Committee shall: (i) adopt rules and procedures consistent with this Retail Network Operating Agreement and the Tariff governing operating technical requirements necessary for implementing the Tariff; (ii) review Retail Network Resources and Retail Network Loads on an annual basis in order to assess the adequacy of the Retail Network Service required by the customer, and; (iii) obtain from APS, APS' operating policies, procedures, and guidelines for Retail Network Service interconnections and operation.

11.3 **Network Operating Committee Agreements:** Each Party shall cooperate in providing to the Network Operating Committee in a timely manner all information required in the performance of the Network Operating Committee's duties. All decisions and agreements, if any, made by the Network Operating Committee shall be evidenced in writing and shall be in accordance with the Tariff. The Network Operating Committee shall have no power to amend or alter the provisions of this Retail Network Operating Agreement, the Tariff, or the Service Agreement.

11.4 **Dispute Resolution:** In the event a dispute arises between the Network Operating Committee concerning the operation or the interpretation of the Operating Agreement, and the parties are unable to resolve it within a reasonable amount of time (not to exceed thirty (30 days), the dispute shall be resolved in accordance with the procedures specified in Section 44 of the Tariff.

12. Technical Data

12.1 **Annual Load Forecast:** The SC shall provide APS each year the SC's best forecast of the following calendar year's in accordance with the Protocols in Attachment L and described in Part IV of the Tariff (i) its monthly coincident peak Retail Network Load expressed in kW and, (ii) each of its monthly non-coincident peak loads expressed in kW. Such forecast shall be made using prudent forecasting techniques available and generally deemed acceptable in the electric utility industry.

12.2 **Annual Retail Network Resource Availability Forecast:** The SC shall provide to APS in accordance with the Protocols in Attachment L and described in Part IV of the Tariff, the SC's best forecast of the following calendar year's planned Retail Network Resource availability (e.g. all planned resource outages, including off-line and on-line dates). Such forecast shall be made using prudent forecasting techniques available and generally deemed acceptable in the electric utility industry. The SC shall inform APS, in a timely manner, of any changes to SC's planned Retail Network Resource availability forecast.

12.3 **Operating Conflicts Due to Transmission Constraints:** In the event that APS determines that the SC's annual Retail Network Resource availability forecast cannot be accommodated due to a transmission constraint on the APS Transmission System, and such constraint may jeopardize the security of the APS Transmission System, appropriate actions to mitigate the constraints will be pursued in accordance with the Protocols in Attachment L and described in Part IV of the Tariff.

12.4 **Daily Operations Forecast:** The SC shall provide APS, in accordance with the Protocols in Attachment L and described in Part IV of the Tariff, the SC's (i) hourly balanced schedules for the forecasted calendar day, (ii) any planned transmission or generation outage(s) associated with the SC's loads and resources or on a system other than that of APS where a Retail Network Resource is located, (iii) operating reserve from each resource and each third party, (iv) transmission path reserved for operating reserves from third party(ies), and (v) any other information that APS' operating personnel reasonably deem appropriate to safely and reliably operate the APS Transmission System. The SC shall keep APS informed in a timely manner, of any changes to its current daily operating forecast.

12.5 **Daily Operating Conflicts Due to Transmission Constraints:** In the event that APS determines that the daily operating forecast cannot be accommodated due to a transmission constraint, appropriate measures will be pursued in accordance with the Protocols in Attachment L and described in Part IV of the Tariff.

12.6 **Retail Network Planning Information:** In order for APS to plan, on an ongoing basis, to meet the SC's firm long-term requirements for Retail Network Service, the SC shall provide APS with the information set forth in Section 12.7of this Retail Network Operating Agreement. This type of information is consistent with APS' information requirements for planning to serve APS' Standard Offer Customer and is consistent with APS' ten (10) year planning process.

12.7 **Annual Planning Retail Network Load Forecast:** Annually the SC shall provide, in accordance with Part IV of the Tariff, a forecast of the following information for the subsequent ten (10) calendar years on a load zone basis: monthly coincident Retail Network Loads and non-coincident Retail Network Loads expressed in MW,

along with the respective power factor. Such forecast shall be made using prudent forecasting techniques generally accepted in the electric utility industry.

12.8 **Annual Planning Retail Network Resource Forecast:** In accordance with the Protocols andPart IV of the Tariff, SCs shall provide APS, on an annual basis, its forecast of the next ten (10) years of planned Retail Network Resources and all pertinent information regarding such Retail Network Resources, and any information necessary for APS (including the underlying agreement for purchased power) to model how the resources will be dispatched by the SC to meet its Retail Network Load; provided, however, that the information provided by the SC pursuant to this Section 12.8 shall not be deemed a substitute for written notice required for designating new Retail Network Resources.

12.9 **Annual Planning Retail Network Transmission Facilities:** The SC shall provide to APS by September 1st of each year plans of any additions or changes to its internal transmission facilities (lines, transformers, reactive equipment, etc.) for each of the subsequent ten (10) calendar years.

12.10 **Technical Data Format:** The SC shall provide APS the best available data associated with Retail Network Resources and transmission facilities, for modeling purposes in an electronic format specified by APS. The electronic format specified by APS shall be a format commonly used in the electric utility industry.

13 **Confidentiality:** APS shall treat all information required from SCs in Section 12 hereof as confidential, and it uses will be restricted to purposes of evaluating transmission planning requirements and operating considerations. This information will not be made available to any APS merchant group, or any APS affiliate that might otherwise use such information for a competitive advantage.

IN WITNESS WHEREOF, the parties hereto have caused this Operating Agreement to be executed by their duly authorized representatives effective as of the date first written above.

ARIZONA PUBLIC SERVICE COMPANY

By: _____
Title: _____
Date: _____

[THE SC]

By: _____
Title: _____
Date: _____

ATTACHMENT L

AZ ISA PROTOCOLS MANUAL

PROTOCOLS MANUAL

Arizona Independent Scheduling
Administrator Association
(Az ISA)

Table Of Contents

I. Introduction

1. History

On September 7, 1994, the ACC conducted a workshop on retail electric competition. The purpose of the workshop was for the ACC, the ACC staff, the utilities, and other concerned parties to learn more about the issues surrounding the potential for competition in the retail supply of electricity. The workshop was Arizona's first step in identifying and addressing policy issues regarding retail electric competition and it resulted in the formation of an Electric Competition Working Group.

At an Electric Competition Working Group meeting held on January 25, 1995, three task forces were formed: (1) Energy Efficiency and Environment, (2) Regulatory, and (3) System and Markets. The System and Markets task force was charged with addressing transmission access and prices; transmission and generation system operation; system reliability; and other related issues. This task force was the first to investigate the various methods for operating a transmission system. These three task forces met during the next eighteen months and helped develop a set of draft rules on electric competition.

On August 28, 1996, ACC staff filed a set of draft rules on retail competition for review by all interested parties. Additional workshops were held to receive comments and three public comment meetings were held in early December 1996. After extensive public input at the workshops and the public comment meetings, the ACC issued Decision No. 59943 on December 26, 1996 adopting the Competition Plan.

The ACC's decision resulted in the formation of several different working groups with an objective to ensure the transition to a competitive retail electric market. ACC staff conducted numerous meetings of those working groups, addressing issues that included metering, meter reading, billing, safety, reliability, ancillary services, committed uses, must-run generation, development of operational protocols, and the feasibility of developing an ISO or ISA. These working groups conducted meetings in 1997 and the first seven months of 1998 to provide suggestions for amending the Competition Plan. Decision No. 61071, issued by the ACC on August 10, 1998, adopted rule amendments on an emergency basis addressing a number of pertinent technical, administrative, and regulatory issues needed in order to implement electric competition in Arizona.

In parallel with this process, the Arizona legislature passed the Electric Power Competition Act. The Act was signed into law on May 29, 1998. The Act requires certain public power entities and the ACC to coordinate their efforts in the transition to retail competition to promote consistent statewide application of rules, procedures, and orders.

The stakeholders in the Competition Plan reached general consensus that to provide comparable non-discriminatory retail transmission access, and to facilitate a robust and efficient competitive electric market in Arizona, an ISO should be implemented. Consequently, the stakeholders in the Competition Plan and others in the Desert Southwest region undertook a process to evaluate the feasibility of forming Desert STAR, a regional ISO that would include Arizona. Efforts to form Desert STAR continue, spurred by the Notice of Proposed Rulemaking on RTOs, Docket No. RM99-2-000, issued by the FERC on May 13, 1999.

Recognizing that Desert STAR could not be operational in the time frame necessary for implementation of the Competition Plan, the ACC's Reliability and Safety Working

Group formulated a plan for an Az ISA that would operate in the interim. This concept was endorsed by the ACC, which set forth requirements for an ISA in its proposed rules governing implementation of the Competition Plan, [Section R14-2-1609]. As a result, the Az ISA was formed in September 1998 as a non-profit Arizona corporation to support the provision of comparable, non-discriminatory retail access to the Arizona transmission system to facilitate a robust and efficient competitive electric market in Arizona.

2. Phase-In of Retail Electric Competition in Arizona

Under the Competition Plan and the Act, retail electric competition in Arizona is being implemented in two phases. Stated very generally, 20% of the retail electric load in Arizona is eligible to elect to purchase commodity electricity and other competitive services starting in 1999, with eligibility extending to 100% of retail electric customers as of January 2001.

Additionally, the Act exempts certain ESPs from the requirement to provide for retail electric competition in their service territories: small cities and towns; certain electrical, power, irrigation and water conservation districts; the Arizona Power Authority; and larger cities and towns that affirmatively elect not to sell electric generation service outside their service territories. [1]

3. Functions of the Az ISA/Protocols Manual and Amendments Thereto

The Az ISA is intended to serve as an interim electric transmission scheduling administrator to facilitate the operation of Arizona's competitive electric retail market until the implementation of an RTO that supercedes the Az ISA.

During the development of the plan for the Az ISA, the stakeholders determined the need for a set of operational and administrative protocols — the "Protocols Manual" — to govern operations of the Az ISA. This Protocols Manual has been developed through a participatory process open to all stakeholders. The Protocols Manual, as set forth herein, defines the duties to be performed and the procedures to be followed by the Az ISA, CAOs and TPs that become members of the Az ISA, and SCs. It is intended that the Protocols Manual will result in the CAOs' and TPs' employment of uniform and non-discriminatory standards and procedures for the use of the Interconnected Transmission System for retail electric service.

Following this Introduction and a Definitions section, the remaining ten sections of the Protocols Manual address the following topics as they affect transmission for retail electric competition: total transmission capability determination; retail transmission allocation; retail transmission reservations and OASIS; congestion management; emergency operations; must-run generation; ancillary services; energy imbalance for retail transmission; scheduling; and after-the-fact checkout/settlement for retail transmission. Each of these ten sections also identify the party (ies) responsible for performing the particular PM function or activity. With respect to functions or activities to be performed by the Az ISA under the PM, implementation has been phased. Functions or activities designated as Phase I are to be implemented in two stages. Stage 1 (effective immediately upon FERC acceptance or approval of the Az ISA tariff filing) will consist of the provision of dispute resolution services and limited Protocols Manual oversight. Stage 2 (effective after the Board's determination that additional staff should be hired) will transition from limited Protocols Manual oversight to more active administration, including monitoring compliance with FERC-recognized standards of

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[1] See the definition of Public Power Entity, A.R.S. §30-801(16).

conduct related to transmission access and the operation of the Interconnected Transmission System.

Functions or activities designated as Phase II are to be implemented following further action of the Az ISA Board of Directors. Not all Phase II functions or activities need be implemented simultaneously. Upon FERC acceptance or approval of the Az ISA tariff filing, including this Protocols Manual in its entirety, the Az ISA will post and maintain on its website a listing of all Az ISA PM functions or activities that have been implemented. In addition, attached in Appendices A and B to this document are two (2) tables listing all Az ISA Protocols Manual functions or activities and designating said functions or activities as either Phase I or Phase II.

Most elements of the Protocols Manual that have been designated as Phase II functions or activities are included in the ARNT, Energy Imbalance and Must- Run Protocols . In Phase I, the following elements of these three protocols will be implemented:

- The temporary ARNT allocation mechanism as set forth in Section 4.3.4.1 of the ARNT Protocol.
- The Temporary Must-Run Generation Procedures as set forth in Section 6 of the Must-Run Protocol.
- The temporary imbalance settlement mechanism as set forth in Section 3.6.1 of the Energy Imbalance Protocol.

In Phase II, the balance of the ARNT, Must-Run and Energy Imbalance Protocols, are to be implemented. Phase II commences when competitive direct access load in Arizona exceeds 300 MW and the Board has approved a business plan covering all aspects of Az ISA activities after that date, including an ARNT auction and energy imbalance trading mechanism.

Upon implementation of Phase I, the Az ISA will act on complaints related to the application of the Protocols Manual and such standards of conduct, and resolve other issues related to discriminatory treatment in the provision of transmission service. In this regard, effective with Phase I PM implementation, TPs, CAOs and SCs will be obligated to maintain, and to provide to the Az ISA in a format reasonably requested by the Az ISA, complete and accurate records concerning Load forecasts, Schedule reservations and ARNT adjustments for a period of 13 months, except that voice recordings need only be retained for 30 days. If a matter is in dispute, however, any records related to the dispute would need to be retained until the matter is resolved. Upon implementation of the ARNT auction and energy imbalance trading mechanisms (both designated as Phase II functions or activities), the Az ISA will monitor conditions indicating market anomalies or market inefficiencies and take action to remedy such conditions should they arise. The Az ISA will enter into a "Arizona Independent Scheduling Administrator-Transmission Provider Agreement (ISA-TP Agreement)" with each TP which is a member of the Az ISA which will further elaborate upon each party's respective functions and responsibilities as set forth in this Protocols Manual. Further, the Protocols Manual is to be made part of the Az ISA's tariff and the TP's OATT, if said TP has an OATT. All tariffs and other agreements affecting provision of retail transmission will be filed with the FERC by the Az ISA and by any member of the Az ISA with an OATT and must be accepted or approved by the FERC.

The Board of Directors of the Az ISA recognizes the Protocols Manual as a dynamic document that will need to change as conditions warrant. For this reason, a standing Operating Committee was formed with responsibility for continued development and refinement of the Protocols Manual. Any member may request the Operating Committee to consider Protocols Manual revisions. Any revisions to the Protocols Manual recommended by the Operating Committee will require approval by the Az ISA Board of Directors, amendment as necessary of the tariffs and agreements referenced above, and revised filings with FERC, as appropriate.

The Protocols Manual is not intended to create precedent for any governing agreement, tariff, protocols or associated agreements of Desert STAR or other RTO which may be formed that includes Arizona parties and transmission facilities. An Az ISA member or a party to an Az ISA-related agreement will not be held to have endorsed or agreed to any portion of the Protocols Manual for incorporation into the governing documents, tariff, protocols or associated agreements of Desert STAR or other RTO.

4. Scheduling Coordinators

The utilization of SCs is a significant feature of Arizona's framework for retail electric competition, as developed through the ACC's stakeholder working group process, reflected in the Competition Plan, and incorporated in this Protocols Manual. Utilization of SCs is required for scheduling of all service to retail electric loads. There is no requirement for wholesale loads to be represented by SCs. Wholesale transmission will continue to be provided pursuant to the TPs' OATTs.

It is anticipated that the economic benefits of providing and charging for SC services will attract a pool of qualified SCs sufficiently large enough to provide competitive SC services in Arizona. The Az ISA will conduct a survey to develop a list of interested providers.

Each entity seeking SC status will be required to enter into an "Agreement By and Among Arizona Independent Scheduling Administrator Association, Scheduling Coordinators and Transmission Providers (ISA-SC-TP Agreement)" with the Az ISA and the TP or TPs who will be providing the transmission and Ancillary Services required by the SC to serve Retail Network Load. Execution of an ISA-SC-TP Agreement will signify the entity's agreement to comply with and be bound by this Agreement and the Protocols Manual. At a minimum all SCs will be required to meet the following criteria:

- Twenty-four hour manned operation for all days of the year.
- The ability to interface with the CAOs' and TPs' websites, requiring dedicated, full time Internet access with a Web browser.
- Twenty-four hour telephone and facsimile capabilities.
- Electronic submission of load forecasts, schedules (including NERC tags), and actual customer load data.
- Availability for on-site inspection of operations of SC services and unannounced site visits.

- Agreement to notify in writing the CAOs, TPs and Az ISA regarding changes in office address, telephone and facsimile numbers, or e-mail addresses, one week prior to the change.

Under the ISA-SC-TP Agreement, SCs will also be required to: forecast their customers' load requirements; submit balanced schedules in which resources equal the customers' loads plus transmission and distribution losses; arrange for necessary transmission and Ancillary Services; purchase or provide Local Generation as necessary for delivery into Load Zones with transmission import limitations; respond to system contingencies and curtailments on pre-schedule and real time basis as directed by the CAOs or TPs; and comply with the after-the-fact schedule checkout and settlement processes. The ISA-SC-TP Agreement also references applicable creditworthiness standards, addresses the issue of the liability of the Az ISA with respect to actions taken hereunder, and sets forth additional criteria specific to interfacing with the TP's system, as required.

SCs serving competitive retail access customers provide SC services for those retail electric customers that elect to purchase competitive electric service. Other SCs provide SC services for their bundled retail service customers, i.e., those electric customers that cannot (because of phase-in) or do not elect to participate in retail competition.

5. Scheduling for Wholesale Transactions and Treatment of Existing Agreements

The rights and obligations of transmission customers requesting and receiving wholesale network integration transmission service or point-to-point transmission service and the TP providing the service are defined by the TP's OATT. The Protocols do not change the way wholesale transmission service is either requested or provided.

Similarly, the Protocols do not impact the provision of transmission service by TPs to customers with Existing Agreements. Existing Agreements will continue to be implemented pursuant to their terms and conditions.

6. Disputes

Disputes arising from the application or implementation of these Protocols shall be resolved pursuant to the dispute resolution procedures contained in Section 6 of the Az ISA By-Laws.

II. Definitions

ACC – The Arizona Corporation Commission

Act — The Electric Power Competition Act, A.R.S. §§ 30-801, et seq.

Allocated Retail Network Transmission (ARNT) — Each SC's pro-rata share of transmission paths within a given TP's transmission network that are reserved as a Committed Use for RNITS.

Ancillary Services — Those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's transmission system in accordance with Good Utility Practice.

Arizona Independent Scheduling Administrator Association (Az ISA) — A non-profit Arizona corporation established: to coordinate development of operational and administrative protocols necessary to implement retail direct transmission access in the State of Arizona; to act as a scheduling administrator on behalf of the providers and users of retail transmission service on the Interconnected Transmission System within the State of Arizona; and to oversee scheduling, reservation and OASIS management for RNITS by CAOs and TPs which are members of the Az ISA.

Available Transfer Capability (ATC) — A measure of the transfer capability remaining in the physical transmission network for further commercial activity over and above Committed Uses.

Balanced Schedule — A Schedule for which the sum of a SC's Retail Network Resource Schedules, in whole megawatt increments, including Local Generation Requirement allocations, equals the SC's submitted Schedule of Retail Network Load, adjusted for losses, in whole megawatt increments, with respect to all entities for which the SC submits Schedules.

Committed Uses (CU) — The amount of transmission capacity that is unavailable for sale to the marketplace due to reservations for network transmission service uses; prudent reserves; existing contractual commitments for power purchases, exchanges, and sales; existing contractual commitments for transmission service; other pending potential uses of transfer capability pursuant to pending transmission requests; and a transmission reliability margin. Committed Uses are further defined in the report entitled "Determination of Available Transfer Capability within the Western Interconnection", adopted by the Colorado Coordinated Planning Group, Northwest Regional Transmission Association, Southwest Regional Transmission Association, Western Regional Transmission Association and Western Systems Coordinating Council in March 1997, and as may be subsequently revised.

Competition Plan — The Retail Electric Competition Rules adopted in Decision No. 59943 on December 26, 1996 by the ACC, as amended, set forth in the Arizona Administrative Code at §§ R14-2-1601 et seq.

Control Area (CA) — An electric power system or combination of electric power systems, to which a common automatic generation control scheme is applied in order to:

1. Match, at all times, the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);

2. Maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;

3. Maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and

4. Provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

Control Area Operator (CAO) — An operator of a CA

Curtailment — A reduction in firm or non-firm transmission service in response to a transmission capacity shortage as a result of system reliablity conditions.

Direct Access Service Request (DASR) — A form that contains all necessary billing and metering information to allow end-use customers to switch ESPs. This form must be submitted to the UDC by either the customer's ESP or the customer.

Discretionary Local Generation — Local Generation that SCs schedule at their own volition for Retail Network Load within a Load Zone.

DLF — Distribution Loss Factor.

Dynamic Schedule — A telemetered reading or value that is updated in real time and is used as a Schedule in the automatic generation control/area control error equation, the integrated value of which is treated as a Schedule.

Electric Service Provider (ESP) — A company which is supplying, marketing, or brokering at retail any of the competitive services described in the ACC's Competition Plan. ESPs referenced in the Az ISA Protocols are those that supply the competitive services of electrical energy.

EHV — Extra high voltage, generally 230 kilovolts (kV) and above.

Emergency — Any abnormal system condition that requires automatic or immediate manual action to prevent or limit loss of transmission facilities or generation supply that could adversely affect the reliability of the electric system.

Energy Imbalance — In any hour, the difference (in KWh) between a SC's actual energy delivery to the TP and the SC's actual Retail Network Load, including all applicable losses.

Energy Imbalance Service — The supplying of energy (positive or negative), by the TP to an SC, in a quantity equal to the SC's Energy Imbalance.

Existing Agreement — All contractual obligations for use of a TP's transmission system in place prior to the effective date of the Az ISA filing as established by the FERC.

FERC — The Federal Energy Regulatory Commission.

Final Schedules —Schedules used in the settlement for transmission and Ancillary Services and NERC Policy 1F, Inadvertent Interchange Standard, and which have been updated for real-time operating conditions and have been verified by the parties.

Firm Energy — Energy purchased from a unit which gives rise to an obligation to provide reserves in accordance with the applicable provisions of the SRSG.

Fixed Cost — Those costs of generation, transmission and/or distribution of electricity which do not vary with the kilowatt-hours (kWhs) produced, sold, or transmitted. These are annual costs associated with expenses that are (or would be) incurred by an entity irrespective of the output of its generation resources or the throughput of transmission and/or distribution facilities used for

the delivery of energy. Fixed Cost includes expenses such as: depreciation, taxes (income, payroll, property), insurance, cost of debt money, return on equity or internally generated investment, rents that are unavoidable, administrative and general (A&G) and operations and maintenance (O&M) expenses that are not avoidable, allocated general plant, allocated intangible plant, and cash working capital.

Good Utility Practice - Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Holiday — Those holidays specified by the CAO or TP, including New Year's Day, Martin Luther King Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day and Christmas. If a holiday falls on a Saturday, it is observed on the preceding Friday. Sunday holidays are observed on the following Monday.

Import Limit — The maximum amount of electric power that can be transferred into a Load Zone while maintaining Interconnected Transmission System reliability. Some factors to be considered when assessing Interconnected Transmission System reliability are voltage stability, thermal limits and resource deficiencies.

Import Limited Load Zone — A Load Zone with a defined Import Limit which will vary with generation and transmission operating conditions and Interconnected Transmission System configuration.

Interconnected Transmission System — That portion of each TP's transmission system which is utilized for bulk power transactions within the State of Arizona.

ISA — An independent scheduling administrator.

ISA-SC-TP Agreement—A standardized Agreement entered into by the Az ISA with each of the five TPs, as well as, with respect to each TP, with each SC that serves retail customers pursuant to that TP's retail access requirements. Said Agreement addresses the rights and obligations of each party with respect to the provision or receipt of RNITS and obligates each party to perform all obligations and responsibilities assigned to it under the Az ISA By-Laws and the Protocols. Further, the Agreement obligates SCs to satisfy specific operational and creditworthiness standards, as detailed therein.

ISA-TP Agreement —A standardized Agreement entered into by the Az ISA with each of the TPs that addresses the rights and obligations of said parties with respect to participation in the provision of or receipt of RNITS.

ISO — An independent system operator.

kW — Kilowatt, or 1,000 watts.

kWh — Kilowatt-hour, or 1,000 watts per hour.

Load — The amount of electric power delivered or required at any specified point or points on a system.

Load Profiling — A process of estimating end-use customers' hourly energy consumption based on measurements of similar customers.

Load Zone — A defined geographic region of a UDC's service territory.

Local Generation — Generation located within a Load Zone.

Local Generation Requirements — The amount of Local Generation required to avoid exceeding scheduling imports exceeding a Load Zone's Import Limit.

Loop Flow — The inherent characteristic of an interconnected transmission system whereby there is a difference between the scheduled and actual power flow, assuming zero inadvertent interchange, on a given transmission path.

Loss Factors — Factors projected by the TP that will be applied to provide for the recovery of electrical losses on the TP's transmission and/or distribution system.

Market Price — For the purpose of settlement for Energy Imbalance service, Market Price shall be deemed to equal: (i) for on-peak hours, the SP-15 Average Ex Post Energy price for the hour, divided by the average of the SP-15 Average Ex Post Energy indices for the on-peak hours for the day and then multiplied by the Dow Jones Palo Verde Daily firm On-Peak Index for the day, plus associated transmission costs, if any; (ii) for off-peak hours, the SP-15 Average Ex Post Energy price for the hour, divided by the average of the SP-15 Average Ex Post Energy indices for the off-peak hours for the day and then multiplied by the Dow Jones Palo Verde Daily firm Off-Peak Index for the day, plus associated transmission costs, if any.

Must-Offer Generation — The Must-Run Generation less any previously committed Local Generation.

Must-Run Generation — Local Generation that must be in operation to maintain for electric system security.

MW — Megawatt, or 1,000 kilowatts (kW).

MWh — Megawatt hour, or 1,000 kilowatts per hour.

NERC — The North American Electric Reliability Council.

Non-Compliant — A condition where an entity fails to fulfill its obligation under the Protocols. Such a condition may constitute a material breach of the ISA-TP Agreement or the ISA-SC-TP Agreement and may result in penalties, suspension or termination of the entity's rights under such agreements.

OASIS (Open Access Same-Time Information System) — The information system and standards of conduct contained in Part 37 of the FERC's regulations and all additional requirements implemented by subsequent FERC's orders dealing with OASIS.

Open Access Transmission Tariff (OATT) — An individual TP tariff for open access transmission service filed with the FERC.

Operating Committee — A standing committee of the Az ISA formed to take on the responsibility for the continuing development and refinement of the Protocols.

Operating Day —The day of Schedule implementation.

Operating Hour —The hour for which Schedules are implemented.

Operating Month —The month in which the Operating Day occurs.

Operating Reserve: Spinning Reserve Service — The providing of unloaded generation capacity, under the control of a TP, which is synchronized, frequency responsive, ready to serve additional demand immediately and which is fully available within ten minutes.

Operating Reserve: Supplemental Reserve Service — The providing of operating reserve capable of serving demand within ten minutes, or interruptible load that can be removed from the system in ten minutes.

Point-to-Point Transmission Service — The reservation and transmission of capacity and energy on either a firm or non-firm basis from the point(s) of receipt to the point(s) of delivery.

Protocols — The operational and administrative procedures used by the Az ISA, CAOs, TPs and SCs to implement retail direct transmission access in the State of Arizona as stated herein and as may be revised from time to time.

Regulation and Frequency Response Service — The providing of generating capacity that follows moment-to-moment variations in the demand or supply in a Control Area and maintains scheduled interconnection frequency.

Retail Network Load — The Load that a SC designates for RNITS under the TP's OATT.

Retail Network Integration Transmission Service (RNITS) — Transmission service provided to a SC for use to serve its share of Retail Network Load within a TP's service area pursuant to the TP's OATT.

Retail Network Resource — A resource owned, purchased or leased to serve Retail Network Load. Retail Network Resources do not include any resource or any portion thereof, which is committed for sale to third parties or otherwise cannot be called upon to meet Retail Network Load on a non-interruptible basis.

Reactive Supply and Voltage Control From Generating Sources Service — The providing of reactive supply through changes to generator reactive output to maintain transmission line voltage and facilitate electricity transfers.

Regional Transmission Organization (RTO) — An entity that meets the minimum characteristics, performs the functions and accommodates the open architecture conditions set forth at Subpart F of Part 35 of the FERC's regulations.

Schedule — An agreed-upon quantity of energy (in megawatts), start and end times, beginning and ending ramp times and ramp rates, and transaction type required for delivery and receipt of power and energy between the contracting parties and the Control Area(s) involved in a power transaction.

Scheduling Coordinator (SC) — An entity that provides Schedules for power transactions over transmission or distribution systems to one or more TP and has entered into one or more ISA-SC-TP Agreements, as applicable..

Scheduling, System Control, and Dispatch Service — The providing of service for: a) scheduling, b) confirming and implementing interchange schedules with other Control Areas,

including intermediary Control Areas providing transmission service, and c) ensuring operational security during interchange transactions.

Southwest Reserve Sharing Group (SRSG) — An agreement under which the parties pool certain generating resources to meet their reserve requirements set forth by NERC and the WSCC.

System Incremental Cost (SIC) — Any increase in cost incurred by a TP as a result of performing Energy Imbalance Service requiring the utilization of dispatchable generation or purchases from third-parties. SIC shall be computed as the weighted average price of the highest-cost dispatchable generation resource and/or third-party purchase made by the TP's real-time operators up to an amount of energy equal to the system net Energy Imbalance. The cost of SIC for both the generation and purchased power components shall be determined by the TP's real-time operator on an hourly basis at the time the real-time operator makes a decision on the source of the energy supply.

Third Party Suppliers — Third Party Suppliers include any entity involved in the supplying of electric energy or Ancillary Services other than a CAO, TP, SC or the Az ISA.

TLF — Transmission Loss Factor.

Total Transfer Capability (TTC) — At any point in time, a transmission path's reliability limit, which can not exceed the rating of the path.

Trading Entity — An entity, created or engaged by the Az ISA and under its direction and control, which shall facilitate and administer after-the-fact trading of Energy Imbalances by SCs and settlement of Energy Imbalances.

Transmission Provider (TP) — An entity (or its desired agent) that owns, controls or operates facilities used for the transmission of electric energy in interstate commerce.

Utility Distribution Company (UDC) — The electric utility entity that constructs, operates and maintains the distribution system for the delivery of power to the end user.

Variable Cost — Those costs of generation, transmission or distribution of electricity that vary with the kWhs produced, sold, or transmitted.

WSCC — The Western Systems Coordinating Council.

WSCC Unscheduled Flow Reduction Procedure — A WSCC Procedure used by the CAO to alleviate Loop Flow on the transmission system.

WSCC Qualified Path — A transmission path that qualifies for curtailments due to unscheduled flow in accordance with the WSCC Unscheduled Flow Reduction Procedure.

III. Total Transmission Capability (TTC) Determination Principles

1. Each TP shall:

   1.1 Determine TTC and Committed Uses for paths located within its transmission system. Beginning with Phase II, this will be done in consultation with the Operating Committee of the Az ISA.

   1.2 Notify the Az ISA of changes to TTC for paths located within its transmission system.

2. Subject to the Board's Direction, the Az ISA Executive Director shall undertake the following Phase I functions or activities:

   2.1 Participate in the determination of TTC and Committed Uses within the Interconnected Transmission System and revisions thereto.

   2.2 Cause the Az ISA to become an affiliate member of the WSCC.

   2.3 Participate in SWRTA-sponsored regional coordinated transmission planning efforts.

   2.4 Attend, as needed, WSCC Operational Transfer Capability Study Group (OTCSG) meetings for discussion of seasonal ratings on qualified paths within the AZ-NM sub-region of the WSCC.

   2.5 As Operating Committee chair, preside over efforts to achieve consistent application of Committed Use determinations within the Interconnected Transmission System.

   2.6 Participate in Arizona joint-utility operating and planning study efforts for TTC.

   2.7 Participate in the coordination of transmission maintenance schedules among TPs.

V. Transmission Reservations and OASIS Management Principles

1. Purpose

The purpose of these principles is to delineate the role of the Az ISA with respect to Retail Network Integration Transmission Service (RNITS) reservation practices and OASIS management. The Az ISA shall implement a state-wide OASIS. Prior to the Az ISA's implementation of a state-wide OASIS, OASIS management for RNITS will continue to be performed by the TPs, with Az ISA oversight. After the Az ISA has implemented the state-wide OASIS, the Az ISA will administer this single state-wide OASIS for reservations for both RNITS and wholesale transmission service provided pursuant to the TP's OATT until such time as a RTO takes over such function.

2. Parties

The Transmission Reservations and OASIS Management Principles apply to the following entities:

2.1 SCs

2.2 TPs

2.3 Az ISA

3. General Conditions

3.1 There will be no change in the processing of requests for Point-to-Point Transmission Service by the TPs. TPs will continue to ensure that their OASIS systems comply with FERC requirements.

3.2 TPs will continue to provide wholesale transmission service pursuant to their OATTs. This Protocol is not intended to modify the provision of wholesale transmission services as specified in the TPs' OATTs nor to alter Existing Agreements.

4. Prior to Az ISA Implementation of a State-Wide OASIS (Phase I):

4.1 The Az ISA will have a "same-time" view into each TP's OASIS so that it can be actively notified of all new transmission reservation requests and transmission reservation status changes for both wholesale transmission service and RNITS. This same-time view will be implemented with the cooperation of the TPs and shall enable the Az ISA to view all information posted, including information otherwise only accessible to the respective TP.

4.2 Should the Az ISA request, it will be copied simultaneously by the TPs on all RNITS Schedules.

4.3 Az ISA will monitor release of ATC on each TP's OASIS.

4.4 Az ISA will begin to develop systems to allow it to calculate and update ATC.

5. Upon Az ISA Implementation of the State-Wide OASIS (Phase II):

5.1 All ATC for the TPs' transmission systems shall be posted on the state-wide OASIS.

5.2 The state-wide OASIS shall be used to receive and forward all wholesale and retail transmission reservation requests to the respective TPs.

5.3 All Ancillary Services and transmission access rights traded in secondary markets shall be posted on the state-wide OASIS.

V. Allocated Retail Network Transmission Protocol

1. Purpose

The Allocated Retail Network Transmission (ARNT) Protocol governs the allocation of Retail Network Integration Transmission Service (RNITS) among SCs in Arizona's competitive retail electricity market.

The purpose of this Protocol is to ensure that each SC is provided comparable, non-discriminatory access to the TP's transmission system to serve the SC's share of total Retail Network Load. In Phase II, this objective will be met by: (i) the Az ISA's conducting of monthly transmission rights auctions of all of the transmission capacity reserved for Committed Uses for Retail Network Load on each of the transmission paths within a given TP's transmission system that is reserved as a Committed Use for RNITS; and (ii) the allocation to each SC of a pro rata share of the revenues associated with the monthly auctions, except for (iii) those Load Zones that are served by only one path on the system of the TP whose service area includes the Load Zone. For these Load Zones, each SC shall receive network service rights based on its pro rata share of the retail Committed Use reservation based on the same formula for calculating the amount of ARNT auction revenues that SC's receive in other Load Zones.

For the purposes of this Protocol, a TP's transmission system shall include, to the extent not prohibited by law or contract, all of those transmission rights which are provided to the TP under contract from a third party, where such rights both: (i) have historically been used to serve Retail Network Load; and (ii) the cost of such rights is included in the TP's annual transmission revenue requirements under its OATT, or rate schedule, as applicable.

Each SC's pro rata share of the revenue from the monthly auction of the rights to use a transmission path that has been reserved to provide RNITS into a Load Zone shall be determined by dividing the Retail Network Load served by the SC in the Load Zone by the total Retail Network Load in the Load Zone.

After SCs receive their ARNT in the monthly transmission rights auctions, they may subsequently make arrangements with one another through trading of such ARNT in secondary markets or they may trade for ATC to use certain Retail Network Resources.

RNITS on each TP's system can be used only to serve Retail Network Load within that TP's service area. In addition, RNITS may not be converted by SCs to other types of transmission service, such as Point-to-Point Transmission Service. However, SCs may acquire Point-to-Point Transmission Service, if it is available, in addition to their ARNT to serve their shares of Retail Network Load, pursuant to the appropriate part of the TP's OATT.

The monthly ARNT auction procedures are Phase II functions or activities that are to be implemented when competitive direct access load in Arizona reaches 300 MW and the Board has approved a business plan covering all aspects of Az ISA activities after that date, including the ARNT auction and trading mechanisms described above. Effective with Phase I, however, the temporary ARNT allocation procedures, specified in Section 4 of this Protocol, shall be used.

2. Parties

The ARNT Protocol applies to the following entities:

2.1 CAOs

2.2 SCs

2.3 Az ISA

2.4 TPs

3. Allocation and Trading of ARNT

The Az ISA shall ensure that the necessary systems and procedures are put into place to conduct monthly auctions of ARNT and to account for: (i) the trading of ARNT; and (ii) the exchange of ARNT for ATC, within a given TP's transmission system.

3.1 By September 1 of each year, each TP, with oversight by the Az ISA, shall determine the total retail Committed Use reservations on each transmission path on a monthly basis for the next calendar year and on an annual basis for the next ten years. The determination of retail Committed Use reservations shall be based on the TP's forecast for total Retail Network Load and the projections for Retail Network Loads and Retail Network Resources made by Electric Service Providers and SCs. The EHV transmission paths that have reservations for Committed Uses to facilitate the delivery of Retail Network Resources to Retail Network Load in the State of Arizona, as they may be modified from time to time, shall be posted on the Az ISA's website (www.az-isa.org). Each congested interface within the State of Arizona shall also be posted on the Az ISA website. The retail Committed Use reservations on the TP's transmission paths shall be used to update long term ATC on the OASIS. ARNT for individual SCs shall not be determined at this time.

3.2 On the 15th day of each month:

3.2.1 Each TP shall post for the following month its

3.2.1.1 Loss Factors,

3.2.1.2 estimated hourly total Retail Network Load,

3.2.1.3 estimated hourly total Local Generation Requirements, and

3.2.1.4 the total retail Committed Use reservation for each hour on each transmission path.

3.2.2 Local Generation that is committed to run and schedule exports outside the Load Zone by the 15th day of the month ahead will increase MW for MW the ARNT on any transmission path that the Local Generation is scheduled on, up to the TTC on the path (in either direction). The total retail Committed Use reservation into an Import Limited Load Zone, plus any additional import capability into the Import Limited Load Zone that can be made available pursuant to Section 5.1 of the Must-Run Protocol, shall be available to be included in the ARNT auctions which shall take place on the 17th day of the month ahead. ARNT can be auctioned up to the lesser of:

- Total ARNT, or
- Import Limit, considering exports as described above.

3.3 On the 17th day of the month ahead, the Az ISA or its designated agent shall conduct auctions of the ARNT on each transmission path, as follows:[2]

3.3.1 The auction of ARNT on each transmission path shall be conducted independently of the auctions of ARNT on other transmission paths.

3.3.2 The ARNT product to be auctioned shall be a sequential block of hourly rights to use the transmission path for all of the hours of the month following the auction. The number of sequential blocks of ARNT for a transmission path shall equal the maximum amount of ARNT available for any of the hours in the month; and if the amount of ARNT in other hours is less than such maximum amount, the rights acquired by the winning bidders shall be pro rated downward during such hours.

3.3.3 Only SCs who are responsible for serving Retail Network Load may participate in the auction of ARNT. Such SCs may participate only in the auction for ARNT on transmission paths that may be used to serve such Retail Network Load.

3.3.4 Each auction shall be a "market clearing price" auction as further described below. For the retail Committed Use reservations between each Network Resource injection or receipt point and a particular Load Zone, the Az ISA or its designated agent shall stack bids from lowest price to highest price, accept the highest bids by moving down the bid stack until the quantity of accepted bids is equal to the amount of ARNT to be auctioned, and charge all of the winning SCs the price equal to the last-accepted bid. This price is called the market clearing price for the ARNT on that transmission path. The Az ISA shall post the results of each ARNT auction, including the winning bidder(s), the market clearing price(s) and quantities awarded, by transmission path.

3.3.5 Each SC shall be required to pay the Az ISA or its designated agent the market clearing price multiplied by the amount of ARNT awarded to the SC for each path.

3.3.6 Each SC's credit for a pro-rata share of the revenue from the ARNT auction for each transmission path shall be equal to the ratio of each SC's actual Retail Network Load in each Load Zone to the total Retail Network Load in the Load Zone as determined at the time of the TP's monthly system peak. Each TP shall perform this calculation, subject to Az ISA oversight.

3.3.7 The Az ISA shall render statements to each SC for monies due under Section 3.3.5 and monies owed under Section 3.3.6 pursuant to a schedule and the terms and conditions as set forth in the SC Certification Agreement.

3.3.8 By 0630 each day, each SC shall forecast its hourly Retail Network Load in each Load Zone for the succeeding seven days commencing with hour ending 0100 of the following day and provide its forecasts to the Az ISA

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[2] The ARNT auction procedure shall not apply for Retail Network Load in the Citizens Utilities Load Zones, as there is only one ARNT transmission path into each Load Zone. Therefore, allocation of ARNT to SCs *pro rata* with their shares of Retail Network Load will be used instead.

and to each TP with respect to the load served in that TP's service area, both in the manner reasonably requested by the Az ISA. If an SC acquires at auction and/or in the secondary market an aggregate amount of ARNT into a Load Zone which exceeds the SC's forecasted peak Retail Network Load less the amount of Local Generation the SC has committed to purchase in the Load Zone, if any, during the next seven days, the SC must release, at no charge to the Az ISA, such excess amount for use by other SCs at 0800 seven days ahead of the Operating Day.

Such excess amount of ARNT shall be allocated among capacity-deficient SCs on the basis of the ratio of each SC's ARNT deficiency over the total ARNT deficiency of all the SCs in that Load Zone. ARNT deficiencies shall be equal to the positive difference calculated as follows: (i) each SC's Retail Network Resource scheduled in a particular Load Zone during the peak hour of the same day during the immediately prior week, less (ii) the greater of the amount of Local Generation the SC has committed to purchase in the Load Zone or the SC's Local Generation Requirement, less (iii) the amount of ARNT the SC has to serve load in that Load Zone. Each SC shall calculate its capacity deficiency in accordance with the above formula and the Az ISA's procedures and provide the Az ISA with its calculations by 0800 seven days before the Operating Day.

3.3.9 At 1300 seven days in advance of each Operating Day, each TP shall determine whether the TP's peak Retail Network Load forecast for each of its Load Zones exceeds the total amount of ARNT already made available to serve such Load Zone and communicate these results to the Az ISA. The Az ISA shall electronically post such amounts. Each capacity-deficient SC may acquire ATC as ARNT by designating Retail Network Resources with the applicable TP. Each capacity-deficient SC shall be limited in its rights under this Section to an amount of transmission based on the product of: (a) the amount of additional ARNT to each Load Zone made available under this Section and (b) the ratio of (i) the SC's capacity-deficiency to that Load Zone to (ii) the sum of all capacity deficiencies to that Load Zone.

3.3.10 On a day-ahead basis, but prior to the close of the day-ahead schedule, each SC that has a capacity deficiency may schedule additional Retail Network Resources using any available capacity that the applicable TP has reserved as retail Committed Use to serve that SC's load to reduce or eliminate the deficiency in an amount up to the SC's load in a Load Zone less the sum of (a) its ARNT and (b) the SC's Local Generation schedule in that Load Zone. After the close of the day-ahead schedule, any SC may schedule additional Retail Network Resources on a shorter-term basis using any ATC in an amount up to the SC's reasonable load forecast for a Load Zone less the sum of its ARNT and Local Generation to serve load in that Load Zone.

3.3.11 Subsequent to each Az ISA ARNT auction, SCs may trade their ARNT with one another, in hourly blocks, until the deadline specified in Section 3.5 The AZ ISA shall implement a mechanism to track the trading of ARNT. Each TP shall post on its OASIS as ATC any ARNT on its

system not sold at auction. If the Az ISA has implemented a state-wide OASIS, then it shall post the ATC.

3.4 In the event that one or more transmission path's reservations exceeds its TTC, the Az ISA will instruct the SCs to adjust their designated Retail Network Resources to reduce the transmission path total reservation to the transmission path TTC. The Az ISA shall develop a methodology for implementing this backstop. The Az ISA shall submit the Retail Network Load and Retail Network Resource forecasts to the CAOs and each CAO shall immediately update ATC on the CAO's OASIS accordingly.

3.5 Until two days ahead of Operating Day, SCs may continue to: (i) trade their ARNT among themselves; and/or (ii) surrender all or part of their ARNT to the CAO, through the Az ISA, in exchange for an equivalent amount of ATC on the system of the TP on whose system the ARNT was based to be redesignated as RNITS. The Az ISA shall send the final results of the trades and exchanges to the CAOs by 1600 hours two days prior to Operating Day.

3.6 Each SC must exercise good faith and due diligence in performing all activities under this Protocol. In particular, each SC must exercise good faith in its bidding behavior with the intent of acquiring ARNT needed to serve its Retail Network Load. The Az ISA shall monitor the amount of ARNT acquired by each SC and compare it to the SC's actual Retail Network Load. The Az ISA shall also monitor the amount of ARNT that each SC relinquishes seven days ahead of the Operating Day and the amount, if any, by which each SC's ARNT to a particular Load Zone exceeds the amount of load the SC served in that Load Zone, less any Local Generation within that Load Zone. The Az ISA may investigate consistent or substantial releases or failures to release, as well as other anomalies. If an SC fails to satisfy these requirements, then the Az ISA may deem them to be non-compliant with the Protocols and take any and all corrective actions at its disposal.

3.7 Changes to System Configurations

If contingencies or changes in system configuration result in a reduction in the total amount of ARNT available on a particular transmission path, each affected SC's ARNT shall be multiplied by a percentage equal to the reduced total amount of ARNT available to all SCs at this particular transmission path divided by the total amount of ARNT originally made available to all SCs on said path.

Note: All allocations, Schedules, and forecasts forwarded to a CAO by the Az ISA shall be provided per SC, by path, by hour.

4. Temporary Mechanism for Allocation of ARNT

During Phase I, the following temporary ARNT allocation procedures shall be used in lieu of the procedures set forth in Sections 3.1 through 3.7:

4.1 The transmission requirements needed to serve the TP's total Retail Network Load shall be determined by the TP on a monthly basis, based on the TP's current retail customer Committed Use allocations.

4.2 On the 15th day of each month, each TP shall post for the following month its:

4.2.1 Loss Factors,

4.2.2 estimated hourly total Retail Network Load for each Load Zone,

4.2.3 estimated hourly total Local Generation Requirements, and

4.2.4 the total retail Committed Use reservation for each hour on each transmission path.

SCs may use this information to estimate their ARNT requirements.

4.3 Six Days Ahead

4.3.1 The TP shall, for each Load Zone, total the energy scheduled by each SC for the SC's share of total Retail Network Load during the Control Area's previous day peak hour.

4.3.2 The TP shall, for each Load Zone, divide each SC's previous day Retail Network Load Schedule for the Control Area's peak hour by the total Retail Network Load Schedules during that peak hour. The resulting percentage is then used to determine the SC's ARNT for the corresponding day of the subsequent week.

4.3.3 The TP shall multiply the retail Committed Use reservation on each transmission path (from Section 4.2.4 above) by each SC's percentage (from Section 4.3.2 above). The resulting hourly MW quantities for each SC will be provided as ARNT to that SC by the TP.

4.3.4 In the absence of the ARNT auction and trading mechanisms, the pro rata allocation of rights on all ARNT paths would place an inordinate burden on SCs serving competitive retail access customers, who would have limited mechanisms to access liquid energy trading hubs for Retail Network Resources to serve their Retail Network Loads. In mitigation of the burden placed on such SCs by the absence of the ARNT auction and trading mechanisms, each TP's SC serving standard offer retail load has stipulated that it shall trade part of its ARNT allocation to SCs serving competitive retail access customers during the period prior to implementation of the ARNT auction and trading mechanisms, as follows:

4.3.4.1 As an alternative to the procedure specified in Section 4.3.3, until any ARNT auction is implemented, each TP's SC serving standard offer retail load shall exchange up to an amount of MW (set forth by the individual TP below) of ARNT from the SC serving standard offer retail load to SCs serving competitive retail access customers for service to retail load within the transmission owner's service territory, at the request of the SCs serving competitive retail access customers, in return for a SC serving competitive retail access customer's exchange to the SC serving standard offer retail load of an equal amount of ARNT on other ARNT paths to the same Load Zone.

For Arizona Public Service Company (APS): The amount shall equal 200 MW from Palo Verde to the APS Load Zones.

For Tucson Electric Power Company (TEP): The amount shall equal 80 MW from Four Corners to the TEP Load Zone.

For Arizona Electric Power Cooperative, Inc. (AEPCo): The amount shall equal 4 MW from Westwing to Vail to serve Retail Network Load in the Southeastern Arizona Load Zone and 5 MW at Westwing for deliveries to the Western Area Power Administration to serve Retail Network Load in the Mohave Electric Cooperative Load Zone.

For Citizens Utilities Company (Citizens Utilities): This Section

4.3.4.1 shall not apply to Citizens Utilities because there is only one ARNT path to each relevant Citizens Utilities' Retail Network Load.

4.3.4.2 Should the Az ISA's ARNT auction and trading mechanism not be implemented, the commitment of the Standard Offer SCs to the mechanism specified in Section 4.3.4.1 shall continue until the earlier of: (i) the termination of services under the Az ISA tariff; or (ii) the operational date of an RTO that serves the retail load located in the service territories to which these Protocols apply.

4.3.4.3 In allocating the MW made available pursuant to Section 4.3.4.1, each TP shall allocate the amount of MW described to SCs serving competitive retail access customers who request such an allocation on a pro rata basis, by dividing the SC's Retail Network Load in the Load Zone(s) by the sum, for all of the requesting SCs, of the Retail Network Loads in the Load Zone(s).

4.4 Day Ahead

4.4.1 Any ATC posted on the TP's OASIS may be acquired by an SC as RNITS to serve its share of Retail Network Load.

4.4.2 Any ARNT allocated to an SC which is not scheduled by the SC as of the deadline for submission of balanced Schedules pursuant to the Scheduling Protocol shall be posted as ATC on the TP's OASIS.

4.4.3 The TP shall verify that the sum of an SC's Retail Network Load Schedules on a transmission path does not exceed that SC's ARNT on that path.

4.5 Changes to System Configuration

Whenever system configurations change such that the Import Limits or Local Generation Requirements change, each SC's ARNT and share of Local Generation Requirements shall also change accordingly. Allocation percentages (Section 4.3.2 above) shall remain the same.

VI. Scheduling Protocol

1. Purpose

The purpose of this Protocol is to define the processes and requirements for scheduling for Retail Network Load, including losses. Scheduling is the process of arranging for the delivery of energy from one location to another over specified transmission path(s). All Schedules must comply with WSCC and NERC procedures and guidelines. All Schedules must be stated in increments of 1,000 kW (1MW) per hour.

Each SC shall schedule for the Retail Network Load for which it is responsible. In addition, each SC is responsible for making necessary transmission reservations, establishing its Schedules for Retail Network Resources, and ensuring that the amount of Retail Network Resources delivered matches the Retail Network Load for which the SC is scheduling.

Each CAO or TP is responsible for assessing and approving or denying the Schedule based on established reliability criteria and adequacy of transmission. Energy transactions shall be scheduled by SCs, but shall only be implemented by and between Control Areas.

2. Parties

The Scheduling Protocol applies to the following entities:

2.1 SCs

2.2 CAOs

2.3 TPs

In addition, beginning with Phase I, should the Az ISA request, it shall be copied by the SCs and CAOs/TPs on all communications and decisions on any and all Schedules and Schedule changes. In the event of a disputed scheduling decision, the Az ISA shall initiate appropriate dispute resolution procedures.

3. Balanced Schedules

An SC must submit a Balanced Schedule for each Load Zone. A Schedule that is not balanced will be considered Non-Compliant.

4. Must-Run Generation Scheduling Requirements

For must-run generation scheduling requirements, see Section 5 of the Must-Run Generation Protocol.

5. Validation

Each CAO or TP shall check all Schedules submitted by the SCs to verify that the following criteria are met:

5.1 The Schedules submitted by each SC are Balanced Schedules for each Load Zone.

5.2 Schedules of Firm Energy from Retail Network Resources are associated with firm transmission paths.

5.3 NERC tags are accurate.

5.4 The SC's Schedules on given transmission path(s) do not exceed the SC's ARNT and/or acquired transmission rights on those path(s).

6. Time Lines

6.1 Overview

The pre-scheduling period starts at 1800 hours two days ahead of Operating Day and ends at 1400 hours on the day ahead of Operating Day, at which time the CAO or TP begins the pre-Schedule checkout process. Activities that occur during the pre-scheduling period are described in Sections 6.2 and 6.3 below. The pre-Schedule checkout process is described in Section 6.4 below.

6.2 Pre-Scheduling Period: Two Days Ahead of Operating Day

By 1800 hours two days ahead of Operating Day (for example, by 1800 hours on Monday for Wednesday), the TP will publish on its OASIS the following information for each hour of the Operating Day:

6.2.1 A forecast of conditions, including transmission line and other transmission facility outages, updating ATC accordingly;

6.2.2 A forecast of the TP's total Load, by Load Zone;

6.2.3 The TP's total Local Generation Requirements, by Load Zone.

6.3 Pre-Scheduling Period: Day Ahead of Operating Day

6.3.1 By 0600 hours on the day ahead of Operating Day, the TP will update all data that has changed from the two day ahead forecasts.

6.3.2 By 0630 hours, each SC shall provide to the TP via e-mail or other electronic means agreed to by the TP and SC, a forecast of its hourly Retail Network Load by Load Zone for the succeeding seven days commencing with the hour ending 0100 of the following day.

6.3.3 By 0800 hours, each SC shall submit to the TP its initial Local Generation Schedule, which must meet or exceed its share of Local Generation Requirements.

6.3.4 By 1000 hours, each SC shall submit to the TP any adjustments to its purchase of Must-Offer Generation.

6.3.5 By 1400 hours, for each Operating Hour:

6.3.5.1 Each SC shall submit its day ahead Balanced Schedule, including the appropriate NERC tags and the required adjustments to Must-Take Generation quantities, via e-mail or other electronic means agreed to by the TP and SC;

6.3.5.2 Each SC shall submit its Schedules for self-provided Ancillary Services, if any, to the TP and the Az ISA via e-mail or other electronic means agreed to by the TP and SC.

6.4 Pre-Schedule Checkout Process

The CAO or TP shall check the Schedule submissions to verify that each SC has met the following criteria:

- Each Schedule is balanced within each Load Zone.
- Each Schedule has a firm transmission path associated with a firm energy schedule.
- NERC tags are accurate.

6.4.1 By 1600 hours on the day ahead of Operating Day and for each Operating Hour, the CAO or TP shall:

6.4.1.1 Validate all SC-submitted day-ahead Balanced Schedules;

6.4.1.2 Notify SCs of errors discovered with their Schedules during validation;

6.4.1.3 Validate all SC-submitted Schedules for self-provided Ancillary Services which were part of their day-ahead Balanced Schedules;

6.4.1.4 Notify SCs of any Local Generation Requirements which the SC has failed to include in day-ahead Schedules but which the CAO or TP requires to run in the Operating Day.

6.4.2 By 1630 hours, each SC must submit a revised Schedule to correct any errors reported to it by the CAO or TP.

6.4.3 By 1700 hours, the CAO or TP shall validate Schedule corrections submitted by each SC at 1630 hours. The SCA to be entered into by each SC shall set forth all circumstances where failure to meet validation criteria shall cause the CAO or TP to reject the SC's Schedule, and such criteria shall be applied uniformly to all SCs. If the SC does not meet all such validation criteria, the SC is in a Non-Compliant condition and will be so notified as such by the CAO or TP. A rejected Schedule shall result in the release of the ARNT associated with the rejected Schedule to the CAO or TP in order for the CAO or TP to serve the SC's Retail Network Load. Rejected Schedules will be set to zero for the purpose of calculating charges for Energy Imbalance Service.

6.4.4 The CAO will coordinate with adjacent Control Areas on the net Schedules between the CAO's Control Area and such other Control Areas. If the CAO and the operator of an adjacent Control Area have different records with respect to the net Schedules, individual SC Schedules will be examined. If required, the CAO will notify the TP and SC of such problems and require the affected SCs to correct their Schedules.

6.4.5 Upon completion of the pre-Schedule checkout process, ATC will be recalculated and posted on the OASIS.

6.5 Operating Day/Real-time Scheduling

6.5.1 By 1 hour and 15 minutes prior to the Operating Hour, each CAO or TP

will update its system load forecast for the next four hours.

6.5.2 By 45 minutes prior to the Operating Hour, each SC may submit Schedule changes to the CAO or TP. For Schedule increases requiring additional RNITS on posted transmission paths, the SC must acquire ATC to designate as RNITS. Such ATC will be made available on a first-come-first-served-basis.

6.5.3 By 30 minutes prior to the Operating Hour, each CAO will begin the checkout process between the adjacent Control Areas and notify SCs and TPs of any scheduling discrepancies.

6.5.4 By 20 minutes prior to the Operating Hour, each CAO will complete Schedule checkouts with adjacent Control Areas and notify SCs and TPs of rejected Schedules and reasons for the rejection.

6.5.5 At 10 minutes prior to the Operating Hour, the CAO will begin the ramp.

6.6 Variances

A CAO or TP may implement temporary variances of timing requirements contained in this Protocol (including the omission of any step) if required for reliability purposes or due to technical difficulties beyond the CAO's or TP's control. The TP shall post information regarding such variances on its OASIS as soon as practicable, and will include the following information:

- The exact timing requirements affected;
- Details of any substituted timing requirements;
- An estimate of the period for which this variance will apply; and
- Reasons for the temporary variance.

7. Loss Factors

Each TP shall determine the Loss Factors which shall be used by the SCs in preparation of Schedules and by the TPs for settlement. Loss Factors shall be published on the TP's OASIS on or before the 15th of every month for use during the following month.

8. Existing Agreements

Scheduling of transactions under Existing Agreements shall be performed by the parties to such Existing Agreements in accordance with the provisions of such Existing Agreements.

9. Scheduling Ancillary Services Resources

9.1 An SC that chooses to have the CAO or TP provide Ancillary Services is not required to schedule such Ancillary Services with the CAO or TP.

9.2 The requirements of this Section 9 are in addition to the requirements specified in the Ancillary Services Protocol.

9.3 To the extent that a SC's purchase of firm energy and capacity from any qualified resource within SRSG is used to meet the SC's self-provision requirements for operating reserves pursuant to Section 3.4 of the Ancillary Services Protocol, the SC is not required to Schedule such operating reserves with the CAO or TP. The

SC must provide notification, as required by the CAO or TP.

9.4 For the following Ancillary Services, the SCs may self-provide, by Schedule, all or a portion of their requirements:

9.4.1 Regulation and Frequency Response Service – An SC that elects to self-provide its Regulation and Frequency Response Service obligation must satisfy the Ancillary Services Protocol.

9.4.2 Operating Reserves: Spinning Reserve Service – An SC that elects to self-provide its Spinning Reserve Service obligation to the CAO must meet all SRSG, NERC and WSCC requirements and the following criteria:

9.4.2.1 The provider of Spinning Reserve Service generation is responsible for scheduling or arranging for the scheduling of the minimum energy output of generation located within the Control Area. When, by arrangement, the SC is the responsible party, it shall schedule appropriately the minimum output of the generation required to provide its Spinning Reserve Service obligation.

9.4.2.2 Under normal operating conditions, the SC may not change the point(s) of receipt for delivery of its Spinning Reserves after they have been specified by the SC in the day-ahead scheduling process. In the event of a contingency affecting the resource, the point(s) of receipt for delivery of Spinning Reserves may be changed if approved by the CAO or TP and the SC has obtained the appropriate firm transmission.

9.4.2.3 The CAO or TP shall reduce the quantity of the Spinning Reserve Services it competitively procures by the corresponding amount of the Spinning Reserve Services self-provided by the SCs.

9.4.2.4 Any unit that satisfies the Ancillary Services Protocol may provide reserves. If purchased from a unit that is not a qualified SRSG resource, then the reserves must be dynamically scheduled.

9.4.3 Operating Reserves: Supplemental Reserves Service – An SC that self-provides all or a portion of its Supplemental Reserves Service obligation to the CAO or TP must meet all SRSG, NERC and WSCC requirements and the following criteria:

9.4.3.1 Under normal operating conditions, the SC may not change the point(s) of receipt for delivery of its Supplemental Reserves after they have been specified by the SC in the day-ahead scheduling process. In the event of an Emergency, the point(s) of receipt for delivery of Supplemental Reserves may be changed if approved by the CAO or TP and the SC has obtained the appropriate firm transmission.

9.4.3.2 The CAO or TP shall reduce the quantity of Supplemental Reserves Services it competitively procures by the corresponding amount of the Supplemental Reserves Service(s) self-provided by the SCs.

9.4.3.3 If purchased from a unit that is not a qualified SRSG resource, than the reserves must be dynamically scheduled.

VII. Ancillary Services Protocol

1. Purpose

The purpose of this Protocol is to specify the obligations of the SCs, TPs and CAOs concerning the provision of Ancillary Services to support retail transactions. All Ancillary Services must meet all applicable FERC, NERC, WSCC and SRSG criteria.

2. Parties

The Ancillary Services Protocol applies to the following entities:

2.1 SCs

2.2 CAOs

2.3 Third Party Suppliers

2.4 TPs

All disputes regarding the provision of Ancillary Services pursuant to this Protocol shall be referred to the Az ISA for initiation of appropriate dispute resolution procedures.

3. Ancillary Services

3.1 FERC has identified six Ancillary Services that the TP is required to offer and that are required for unbundled open access transmission:

3.1.1 Scheduling, System Control and Dispatch Service

3.1.2 Reactive Supply and Voltage Control from Generation Sources Service

3.1.3 Regulation and Frequency Response Service

3.1.4 Energy Imbalance Service

3.1.5 Operating Reserve – Spinning Reserve Service

3.1.6 Operating Reserve – Supplemental Reserve Service

3.2 The TP shall be the sole supplier to the SCs of the following services for loads served within its CA or system:

3.2.1 Scheduling, System Control and Dispatch Service

3.2.2 Reactive Supply and Voltage Control from Generation Sources Service Charges for these services will be pursuant to the TP's OATT.

3.3 An SC may self-provide all or a portion of the SC's requirements for the following Ancillary Services or purchase all or a portion of such requirements from the TP pursuant to the TP's OATT:

3.3.1 Regulation and Frequency Response Service: The Regulation and Frequency Response requirement shall be that specified in the TP's OATT. An SC may obtain this service from the TP, may self-provide it, or may purchase the service from a third party up to the amount specified in the TP's OATT.

3.3.2 Energy Imbalance Service: SCs will incur charges pursuant to the Energy Imbalance Protocol.

3.3.3 Operating Reserve – Spinning Reserve Service: The Spinning Reserve requirement shall be that specified in the TP's OATT. Any SRSG, NERC or WSCC penalties imposed upon the TP as the result of an SC not meeting its Spinning Reserves obligations shall be passed on to the SC pursuant to the terms of the Scheduling Coordinator Agreement. An SC may obtain this service from the TP or self-provide it from resources that satisfy the SRSG requirement.

3.3.4 Operating Reserve – Supplemental Reserve Service: The Supplemental Reserve requirement shall be that specified in the TP's OATT. Any SRSG, NERC or WSCC penalties imposed upon the TP as a result of an SC not meeting its Supplemental Reserve obligations shall be passed on to the SC pursuant to the terms of the Scheduling Coordinator Agreement. An SC may obtain this service from the TP or self-provide it from resources that satisfy the SRSG requirement.

3.4 An SC's purchase of Firm Energy shall be deemed to contribute towards the SC's self-provision requirements for Operating Reserves (Spinning Reserves and/or Supplemental Reserves) in a CA provided that the Firm Energy is either:

3.4.1 Purchased from a resource on the system of any member of the SRSG, in which case the credit for self-provision shall equal the TP's OATT reserve requirement x .75 x the Firm Energy scheduled in each hour; or

3.4.2 Purchased from a resource that is not on the system of a member of the SRSG and: (i) the CAO can verify the selling party's readiness to supply the Operating Reserves in the form of energy in excess of the Firm Energy transaction scheduled within the time frames required by the WSCC; and (ii) the SC can, in addition to delivering the Firm Energy on a firm primary transmission path, deliver the Firm Energy on a secondary transmission path within the Operating Reserves' time requirements upon the loss of the primary path.

4. Transmission Requirements for Self-Provision

An SC that self-provides Ancillary Services is responsible for reserving the firm transmission required to allow delivery of service to and within the CA or the TP's system. An SC that uses transmission service from outside the CA or the TP's system to deliver an Ancillary Service shall be responsible for acquiring the necessary contracts for firm transmission service from such CA or TP's system. If the CAO/TP is able to reduce its reservation of transmission capacity for Ancillary Services when an SC self-provides these services, the SC shall be afforded an opportunity to apply this freed-up transmission capacity toward meeting its transmission requirement for its self-provided Ancillary Services. Transmission reserved for Ancillary Services may only be used for Ancillary Services. If an SC modifies the resources associated with its self-provision of Ancillary Service, it shall modify its required transmission reservations accordingly.

5. Interface Requirements for Self-Provision

An SC desiring to self-provide Ancillary Services must provide proof to the TP that it can provide Ancillary Services and necessary transmission to serve its load. Additionally, the necessary infrastructure and procedures specified under such agreement must be in place before the SC will be allowed to self-provide.

VIII. Must-Run Generation Protocol

1. Purpose:

The purpose of this Protocol is to provide a framework and process governing the access to energy from Must-Run Generation to support retail transactions in a competitive market. During certain hours, load within a Load Zone may exceed the Import Limit on the Interconnected Transmission System. For such hours, each SC's ARNT will be insufficient to serve 100 percent of the SC's share of Retail Network Load in the Load Zone through imports alone. Such conditions will require that Local Generation be made available to SCs. For each SC, the difference between its share of Retail Network Load in the Load Zone and its ARNT will be specified in advance, and will be the SC's Local Generation Requirement. Third Party Suppliers that have facilities with Must-Offer Generation obligations that commit to run and commit to schedule exports from the Load Zone by the 15th day of the month ahead will decrease the Local Generation Requirement on a MW for MW basis. The specification of the SC's share of the Local Generation Requirement will occur concurrently with the steps taken in the administration of the ARNT Protocol.

Implementation of the Must-Run Generation Protocol is to occur in two phases. In Phase I, which commences with the effective date of this Protocols Manual, the Temporary Must-Run Generation Procedures set forth in Section 6 will be implemented. In Phase II, which commences when competitive direct retail access load in Arizona reaches 300MW and the Board has approved a business plan covering all aspects of Az ISA activities (including all Phase II activities), the Must-Run Generation Procedures set forth in Sections 1-5 of this Protocol will be implemented.

2. Parties

The Must-Run Generation Protocol applies to the following entities:

2.1 CAOs
2.2 SCs
2.3 TPs
2.4 Third Party Suppliers
2.5 Az ISA

3. Local Generation Management Options for Must-Run Generation Requirements

Each SC shall manage its obligation to provide its share of the Local Generation Requirement by using one or more of the following means:

3.1 Scheduling Discretionary Local Generation;

3.2 Purchasing Must-Offer Generation;

3.3 Acquiring ARNT into the Import-Limited Zone from another SC;[3] or

3.4 Implementing dispatchable direct retail load-tripping within the Load Zone (which reduces Retail Network Load within the Load Zone, and thus reduces the SC's share of

[3] The SC providing the additional ARNT may be causing its own share of the Local Generation Requirement to increase, all things being equal.

Local Generation Requirement).

4. Must-Run Generation Framework

4.1 The Must Run Generation Protocol is applicable to the following Import-Limited Load Zones:

- APS Phoenix
- Tucson
- Yuma

4.2 For each Import-Limited Load Zone, the TP will determine the total Local Generation Requirement for each hour, which will be equal to the forecasted Retail Network Load within the Import-Limited Load Zone minus the Import Limit. Local Generation providers that have facilities with Must-Offer Generation obligations that commit to run and commit to schedule exports from the Load Zone by the 15th day of the month ahead will decrease the total Local Generation Requirement on a MW for MW basis.[4]

4.3 Each SC scheduling into an Import-Limited Load Zone will be assigned a share of the total Local Generation Requirement for each hour. The Az ISA will calculate each SC's share of Local Generation Requirement for each hour of the month and each SC's ARNT for each transmission path for each day of the month. In Phase II, the Az ISA will communicate the results of this allocation to all SCs by the 15th day of the month prior to the Operating Month. This function will be performed by the TPs until the Az ISA has the capability but, in no event, later than such time as the ARNT trading mechanism is implemented.

4.4 Each SC's share of the total Local Generation Requirement will be equal to that SC's scheduled Retail Network Load within the Import-Limited Load Zone minus the SC's ARNT into that same zone.

4.5 Each SC must meet its share of the Local Generation Requirement by one or more of the means identified in Section 3 of this Protocol.

4.6 For each Import-Limited Load Zone, the provider of Must-Run Generation service (e.g., the TP) must provide the amount of Must-Offer Generation scheduled by SCs, up to the amount of the total Local Generation Requirement. Must Offer Energy is provided at regulated prices as described in Sections 4.8 and 4.9 of this Protocol.

4.7 Each SC will be given the opportunity to purchase Must-Offer Generation up to the amount of the SC's share of the Local Generation Requirement.

4.8 Recovery of Must-Run Generation Fixed Costs occurs as part of the TP's OATT. Must-Run Generation Fixed Costs are the Fixed Costs associated with specific Must-Run Generation units. Must-Run Generation Fixed Costs will be limited to the percentage of each Must-Run Generation unit's annual usage[5] that is

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[4] Third Party Suppliers that have Local Generation facilities with *no* Must-Offer Generation obligations that commit to run and commit to schedule outside the Load Zone may make it possible for imports into the Load Zone to be increased; however, unless such Local Generation facilities are committed to meet Local Generation Requirements in the event that the export is reduced, any increase in transmission imports could only be made if such transmission were recallable.

[5] In certain circumstances, a generation facility that is needed for Must-Run Generation purposes on a first-contingency basis may have a total annual usage of zero. When such a

attributable to providing Must-Run Generation service.

4.9 Recovery of Must-Run Generation Variable Costs occurs via SC purchases of Must-Offer Generation. These purchases will take place using a regulated pricing mechanism, as set forth in the TP's OATT, that reflects the actual Variable Cost of Must-Run Generation within each Load Zone, for each hour, as it is dispatched in the most economic sequence permitted by system conditions.

5. Must-Run Generation Scheduling Sequence

5.1 Month Ahead of Operating Month

Pursuant to Section 3.2.3 of the ARNT Protocol, the monthly auctions of ARNT and share of Local Generation Requirement for each SC shall be completed by the 17th day of the month ahead of the Operating Month. Local Generation providers that have facilities with Must-Offer Generation obligations that commit to run and commit to schedule exports from the Load Zone by the 15th day of the month ahead of the Operating Month will decrease the Local Generation Requirement on a MW for MW basis. When such situations occur, ARNT into the Load Zone is increased by the amount of the reduction in the total Local Generation Requirement and is included in the auction of ARNT to SCs.[6] Concurrently, the Must-Offer Generation obligation of the Local Generation provider is reduced MW for MW. Should a Local Generation provider's export of energy be reduced during a must run situation for any reason, the Must-Offer Generation obligation will be restored in the amount of the export reduction.

Generators within Load Zones may be scheduled to serve Load outside the Load Zone without committing by the 15th day of the month ahead of the Operating Month. However, while this generation may result in increased ATC into the Load Zone, the Must-Offer Generation obligation will not change.

5.2 18th Day of the Month Prior To Operating Month Through Two Days Ahead of Operating Day

As ARNT is traded among SCs, each SC's share of the Local Generation Requirement will change to reflect the SC's amended ARNT. These changes shall be reported by the SCs to the Az ISA, tracked by the Az ISA and communicated by the Az ISA to TPs, as set forth in Section 5.3.

5.3 Two Days Ahead of Operating Day

By 1600 hours two days ahead of Operating Day, the Az ISA will submit the final results of the trades and exchanges of ARNT and each SC's share of Local Generation Requirements to the TP. The TP shall update its OASIS accordingly.

5.4 Day Ahead of Operating Day

Each SC will submit its Balanced Schedule pursuant to Section 6.3 of the Scheduling Protocol, which must meet or exceed its share of the Local Generation Requirement and must specify its intended purchase of Must-Offer

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generation facility is used, the owner of the generation facility will not be precluded from recovering appropriate Must-Run Generation Fixed Costs.

[6] ARNT can be made available up to the lesser of: (i) total ARNT; or (ii) the Import Limit, considering exports.

Generation. Must-Offer Generation made available to an SC is capped at the SC's share of the Local Generation Requirement. An SC may schedule Discretionary Local Generation and/or reduce its share of Retail Network Load within the Load Zone through dispatchable direct retail Load tripping.

5.5 18th Day of the Month Prior To Operating Month Through Scheduling Hour

5.5.1 Changes in System Configurations

If contingencies or changes in system configurations result in a reduction in an SC's ARNT into an Import Limited Load Zone, the SC's share of the Local Generation Requirement shall be recalculated using the formula specified in Section 4.4.

5.5.2 Increased Exports by Must-Offer Generation Providers after ARNT is Allocated

If Local Generation providers that have facilities with Must-Offer Generation obligations schedule exports from the Load Zone after ARNT is allocated, such scheduling shall not decrease the Local Generation provider's Must-Offer Generation obligation even if it results in an increase in ATC into the Load Zone.

6. Temporary Must-Run Generation Procedures

During Phase I, temporary changes must be made to the Must-Run Generation Protocol to correspond to the temporary ARNT allocation procedures that will be in effect. The temporary Must-Run Generation procedures differ from the standard procedures in the following ways:

6.1 There is no trading of ARNT among SCs.

6.2 SCs' ARNT and shares of the Local Generation Requirement are specified and communicated to the SCs by the TPs ahead of the Operating Day. Local Generation providers that have facilities with Must-Offer Generation obligations that commit to run and commit to schedule outside the Load Zone by seven (7) days ahead of the Operating Day will decrease the total Local Generation Requirement. If there are changes in system conditions, the Local Generation Requirement may be modified subject to the provisions of Section 5.5 of this Protocol.

6.3 Each SC's hourly share of the Local Generation Requirement will be determined as follows: For hours for which a non-zero Local Generation Requirement is anticipated, the TP will divide each SC's previous day total Retail Network Load Schedule for the Load Zone for each hour by the total Retail Network Load in the Load Zone for that hour. The resulting percentage will be used to determine the SC's share of the Local Generation Requirement for the corresponding day and hour of the subsequent week.

IX Energy Imbalance Protocol

1. Purpose

The purpose of this Protocol is to establish procedures for the accounting, after-the-fact trading and settlement for Energy Imbalance Service and to create incentives for reasonable scheduling and operational behavior by SCs.

Implementation of the Energy Imbalance Protocol is to occur in two phases. Phase l, which commences with the effective date of this Protocols Manual, the Temporary Imbalance Settlement Mechanism set forth in Section 3.5 will be implemented. In Phase II, which commences when competitive direct retail access load in Arizona reaches 300 MW and the Board has approved a business plan covering all aspects of Az ISA activities (including all Phase II activities), the Energy Imbalance Procedures set forth in Section 5 of this Protocol will be implemented.

2. Parties

The Energy Imbalance Protocol applies to the following entities:

2.1 SCs

2.2 CAOs

2.3 UDCs

2.4 TPs

2.5 Az ISA

3. Principles

3.1 All settlements for Energy Imbalance shall be determined on an hourly basis.

3.2 Energy Imbalance shall be determined for each Load Zone.

3.3 Settlement for Energy Imbalance Service shall be in dollars.

3.4 The Trading Entity shall facilitate and administer after-the-fact trading of Energy Imbalances by SCs and settlement of Energy Imbalances. SCs will settle their Energy Imbalances with the Trading Entity, and the Trading Entity shall settle with each TP. The Trading Entity and each TP shall enter into an agreement to facilitate billing and settlement for Energy Imbalances. Pursuant to its agreement with the TP, the Trading Entity will be subject to the creditworthiness requirements under each TP's respective OATT.

3.5 During Phase I, the Temporary Imbalance Settlement Mechanism, specified below, shall be used in lieu of the procedures specified in Section 5 of this Protocol.

3.5.1 Temporary Imbalance Settlement Mechanism

Each TP shall perform Energy Imbalance settlement accounting with each SC as follows:

Within sixty-one (61) days after the last day of the month, each TP shall provide the following information to each SC for each hour of the month:

- The energy consumed in the TP's system by each SC's Retail Network Load (LActual), in KWh;
- The energy scheduled into the TP's system by each SC's Retail Network Resource (RActual), in KWh;
- Each SC's Energy Imbalance in the TP's system, in KWh;
- The System Incremental Cost for the TP's system, in $/MWh; and
- The Market Price.

For purposes of determining hourly Energy Imbalance amounts, each TP shall calculate hourly Energy Imbalances for individual SCs in accordance with this Protocol. Settlement for Energy Imbalance shall be determined in the following manner:

- During an hour in which the SC's Energy Imbalance is negative (that is, the SC consumed more energy than it provided), the price at which Energy Imbalances shall be settled (in $/MWh) shall be equal to the higher of the SIC for the TP's system or the Market Price. The SC will make payment to the TP.
- During an hour in which the SC's Energy Imbalance is positive (that is, the SC provided more energy than it consumed), the price at which Energy Imbalances shall be settled (in $/MWh) shall be equal to the lower of the SIC for the TP's system or the Market Price. The SC will receive payment or credit for this from the TP.
- The TP shall establish an Energy Imbalance deadband equal to the greater of 2 MW or +/- 10% of the scheduled transaction to be applied hourly to any energy imbalance that occurs as a result of the SC's scheduled transaction(s). During an hour in which the SC's Energy Imbalances exceeds the Energy Imbalance deadband, the TP shall levy a penalty equal to the product of: (i) the amount (in kWh) by which the SC's Energy Imbalances exceeds the deadband; and (ii) 10% of the greater of the TP's SIC or Market Price when the SC under-schedules; or the lower of SIC or Market Price when the SC over-schedules.

4. Nature of Energy Imbalance Service

Energy Imbalance Service is the supplying of energy by the TP to a SC in an amount equal to the net hourly MWh mismatch (which may be a positive or a negative quantity) between the SCs actual delivery to the TP's system during an hour and the SC's actual Retail Network Load in the TP's system during the hour, including applicable transmission and distribution losses.

The Energy Imbalance settlement process assigns charges or credits to the SC as compensation for energy supplied by or taken by the TP. Because the TP can maintain the energy balance for the TP's system on a real-time basis only to the extent that all users of the transmission system reasonably minimize their Energy Imbalances, the settlement process also assigns penalties to SCs with large Energy Imbalances which place burdens on TP.

5. Calculation of Energy Imbalance Charges and Penalties

5.1 Each TP shall calculate each SC's hourly Energy Imbalance as the SC's [R_{Actual} - L_{Actual}], where:

5.1.1 R_{Actual} = the actual energy delivery from the SC's Retail Network Resources scheduled into the TP's system (includes integrated hourly generation within the TP's system plus imports from other TP systems)

5.1.2 L_{Actual} = the actual energy consumption by the SC's share of Retail Network Load within the TP's system (integrated hourly demand for the SC's share of Retail Network Load, based on both interval-metered Load and load-profiled Load), including the TP's applicable calculated transmission and distribution losses.

5.2 Within sixty-one days after the last day of the month, each TP shall provide the following information to the Trading Entity for each hour of the month:

(i) The energy consumed in the TP's system by each SC's Retail Network Load (LActual), in KWh;
(ii) The energy provided to the TP's system by each SC's Retail Network Resources (RActual), in KWh;
(iii) Each SC's Energy Imbalance in the TP's system, in KWh;
(iv) The net Energy Imbalance for the TP's system, in KWh;
(v) The SIC for the TP's system, in $/MWh; and
(vi) The Energy Imbalance deadband for the TP's system, in KWh.

The Trading Entity shall make the information specified in Section 5.2(i) – (vi) available to the affected SC immediately, provided that the Trading Entity and the affected SC shall treat the information specified in Sections 5.2(i) - (iii) and (v) as confidential information not subject to disclosure to third parties, however said information may be disclosed to the affected customer of the SC upon said customer's agreement to also maintain the confidentiality of this information.

5.3 The Trading Entity shall make the Market Price for each hour of the month available to each SC and to each TP as soon as such information is available.

5.4 The net Energy Imbalance for the TP's system shall equal the sum of the Energy Imbalances of the SCs serving Retail Network Load on the TP's system.

5.5 The Energy Imbalance deadband for the TP's system shall equal the greater of 2 MW or 1.5% of the sum of the Retail Network Load scheduled within the TP's system by SCs.

5.6 During an hour in which the sum of the SCs' Energy Imbalances is positive (that is, the SCs collectively provided more energy than they consumed), the price at which Energy Imbalances shall be settled (in $/MWh) shall be equal to the lower of the SIC for the TP's system or the Market Price.

5.7 During an hour in which the sum of the SCs' Energy Imbalances is negative (that is, the SCs collectively consumed more energy than they provided), the price at which Energy Imbalances shall be settled (in $/MWh) shall be equal to the higher of the SIC for the TP's system or the Market Price.

5.8 SCs shall be provided the opportunity to trade their Energy Imbalance accounts within an individual TP's system as part of the settlement process. At the end of the trading period, the Trading Entity shall be responsible for settlement with each SC for the SC's final allocation of the net hourly Energy Imbalances, at the prices specified in Sections 5.6 and 5.7.

5.9 During an hour in which the sum of the SCs' Energy Imbalances exceeds the

Energy Imbalance deadband for the TP's system, the Az ISA, or its designated agent, shall levy a penalty equal to the product of: (i) the amount (in MWh) by which the absolute value of the sum of the SCs' Energy Imbalances exceeds the deadband; and (ii) 10% of the price specified in Section 5.6 (if the sum of the Energy Imbalances is positive) or Section 5.7 (if the sum of the Energy Imbalances is negative).

5.10 The Trading Entity shall allocate this penalty to each SC based on each SC's final (after all trading of Energy Imbalances has been completed) Energy Imbalance. Each SC's share of the charge shall equal that SC's penalty allocation factor divided by the sum of the penalty allocation factors of all of the SCs. The SC's penalty allocation factor shall equal the absolute value of the amount by which the SC's Energy Imbalance (in MWh) exceeds the greater of 2 MW or 1.5% of the SC's scheduled Retail Network Load in the TP's system.

5.11 In calculating the Energy Imbalance deadband for each TP's system pursuant to Section 5.5 and the penalties pursuant to Section 5.9 and 5.10, the following additional criteria shall apply. SCs that have met their Operating Reserve obligations, and whose imports into the TP's system and/or Retail Network Resources within the TP's system are reduced due to unplanned forced curtailments, shall not incur Energy Imbalance penalties during the period prior to the first opportunity to update Schedules, provided that the SC's Schedule(s) for the period of the unplanned curtailment would otherwise fall within the deadband.

5.12 Each SC shall settle with the Trading Entity for the Energy Imbalance charges, credits and penalties, as specified above.

5.13 Each TP shall settle with the Trading Entity no later than 5 days after the TP renders its invoice for the net amount of the Energy Imbalance charges. Such invoice shall be rendered within 61 days after the last day of the month and calculated in accordance with Section 5 of this Protocol.

5.14 The Trading Entity, with the input and approval of the Az ISA, shall implement administrative procedures and deadlines for the procedures described above and for validating trades of Energy Imbalances among the SCs.

6. Transmission and Distribution Loss Factors (TLFs and DLFs)

6.1 TLFs and DLFs to be used for scheduling shall be those as set forth in the applicable service agreement entered into pursuant to the TP's OATT or other tariff.

X. Congestion Management Principles

1. Purpose

The purpose of these Principles is to describe the process for mitigating congestion on transmission paths where capacity has been reserved for serving Retail Network Load within the TP's system. These congestion management principles shall apply to all SCs that are scheduling a share of Retail Network Load within the TP's system. Use of the Interconnected Transmission System for wholesale power transactions shall continue to be governed by the terms and provisions of the TP's OATT or the terms and provisions of Existing Agreements, whichever may apply.

2. Parties

The Congestion Management principles apply to the following entities:

2.1 SCs
2.2 CAOs
2.3 Az ISA
2.4 TPs

3. EHV Transmission Paths

Beginning with Phase II, the EHV transmission paths that have reservations for Committed Uses to facilitate the delivery of Retail Network Resources to Retail Network Load in the State of Arizona, as such reservations may be modified from time to time, will be posted on the Az ISA's website (www.az-isa.org). Each congested interface within the State of Arizona will also be posted on the Az ISA website effective with Phase II.

4. Congestion Management Practices

4.1 The ARNT Protocol ensures that total transmission path reservations will not exceed the TTC.

4.2 Congestion related to a Load Zone's Import Limit shall be managed with Local Generation pursuant to the Must-Run Generation Protocol.

4.3 If planned maintenance results in a reduction of the TTC of a transmission path, transmission reservations shall be reduced pursuant to the TP's OATT. RNITS shall be reduced pro-rata based on each SC's then-current reservation on that affected transmission path.

4.4 Any Schedule Curtailments on a WSCC Qualified Path required by implementation of the WSCC Unscheduled Flow Mitigation Procedure shall be made pursuant to that procedure.

4.5 If forced outages, Loop Flow or other unexpected system conditions reduce transmission path capability in real time, the TPs shall make transmission path Curtailments first to non-firm Schedules and, if required, to firm Schedules (wholesale and retail) on a non-discriminatory pro-rata basis, based on the Schedules on the path and consistent with the terms of the TP's OATT. The TP shall notify the Az ISA as soon as practical of Curtailments and of the parties affected.

4.6 If an Emergency condition necessitates redispatch to relieve transmission path loading, those SCs scheduling on the transmission path shall share in the cost of the Emergency redispatch based on the terms of the TP's OATT. The TP shall notify the Az ISA as soon as practical of the Emergency redispatch condition(s) and of the parties affected.

XI. Emergency Operations Protocol

1. Purpose

The purpose of the Emergency Operations Protocol is to describe system conditions that warrant Emergency operations and procedures used to mitigate or eliminate those system conditions and return the electric system to a normal operating condition.

2. Parties

The Emergency Operations Protocol applies to the following entities:

2.1 SCs

2.2 CAOs

2.3 TPs

In addition, any disputes related to Emergency operations shall be referred to the Az ISA for resolution pursuant to the dispute resolution procedures outlined in the Az ISA By-laws.

3. Interface Requirements

The CAO or TP may issue instructions and information to SCs and adjacent CAOs or TPs during Emergency operating conditions.

3.1 Emergency communications shall occur via direct telephone contact.

3.2 Outage and Curtailment information shall be posted on the TP's OASIS.

4. Emergency Operations

The CAO or TP is authorized to take those actions, automatic or manual, that are necessary to:

4.1 Maintain system reliability.

4.2 Fulfill WSCC reliability obligations.

4.3 Comply with the Emergency Operations Policies of NERC, WSCC, SRSG and their successors.

The SC's share of Retail Network Load shall be subject to all applicable emergency operation standards promulgated by NERC, WSCC, SRSG, the TP and the CAO. Emergency operation may include, but is not limited to, automatic or manual operation of under-frequency relaying equipment, load shedding equipment, and voltage reduction equipment.

5. Emergency Conditions and Curtailments

5.1 The CAO or TP may curtail an SC's Schedules under Emergency conditions. Such Emergency conditions include, but are not limited to, the following circumstances:

WSCC-mandated circumstances such as the WSCC's "Unscheduled Flow Reduction Procedure." The CAO shall curtail Schedules based upon a WSCC predefined matrix.

5.1.1 Emergency outages on any of the CAO's or TP's EHV transmission paths that impact Import Limits.

5.1.2 Emergency outages of third party facilities that impact Import Limits.

5.2 Load shedding shall be administered in a non-discriminatory manner and within the CAO's or TP's technical limitations. The CAO or TP shall take those actions required to avoid shedding Load for entities deemed critical to the community.

5.3 SCs shall follow the CAO's or TP's instructions to aid in remedying system problems under Emergency conditions. System problems include, but are not limited to, transmission equipment overloads, system frequency or voltage conditions that are outside of safe operating ranges, and CAO's or TP's energy deficiencies.

5.4 After curtailing all non-firm Schedules, the CAO or TP shall implement Curtailments in proportion to the then-current load ratio shares of parties scheduling into the constrained area, to the extent practical and consistent with Good Utility Practice.

5.5 When Schedules have been curtailed in accordance with Section 5.1 herein, affected SCs shall provide modified Schedules pursuant to Section 6.5 of the Scheduling Protocol beginning with the next Operating Hour.

6. Management of Emergencies

In the event of an Emergency, the CAO or TP shall:

6.1 Initiate action it considers necessary to preserve or restore stable operation of the CAO's or TP's system, including but not limited to:

6.1.1 Committing and dispatching all necessary available generation and Ancillary Services.

6.1.2 Tripping all interruptible demand designated for reliability uses.

6.1.3 Initiating the public appeals process for Load Curtailment as appropriate.

6.1.4 Shedding Load to curtail demand on an involuntary basis.

6.2 Inform adjacent CAOs and TPs as to the nature and extent of the Emergency, in accordance with established WSCC procedures.

6.3 Within a reasonable period of time, inform SCs of the Emergency and update them as the system is restored and stabilized.

6.4 Cease Emergency operations as soon as the system has been restored to normal operations and is stabilized.

7. Implementation of Emergency Dispatch Instructions

7.1 Each SC shall respond to CAO or TP dispatch instructions immediately upon notification during Emergencies.

7.2 Non-Compliant condition: An SC that does not execute the instructions of the CAO or TP during Emergency situations shall be considered to be in a Non-Compliant condition.

XII. After-The-Fact Checkout Protocol

1. Purpose

The purpose of the After-the-Fact Checkout Protocol is to establish procedures for determining each SC's Final Schedule. This information is required for settlement of transmission and Ancillary Services, as well as to ensure that all involved CAOs can meet the requirements of NERC Policy 1F, Inadvertent Interchange Standard. The process for checking out Schedules involves all parties to a power transaction, including CAOs TPs SCs and Third Party Suppliers.

2. Parties

The Checkout Protocol applies to the following entities:

2.1 SCs

2.2 CAOs

2.3 TPs

2.4 Third Party Suppliers

2.5 Az ISA

3. Checkout Process and Timelines

3.1 Normal business days for the purposes of this Protocol are Monday through Friday, excluding Holidays.

3.2 The TP shall select one of the following two options for its checkout process and timeline:

3.2.1 Option One:

3.2.1.1 After-the-fact checkout information shall be posted electronically. Access to the information shall be limited to the parties involved in the transaction and the Az ISA, which shall have access to all of the posted after-the-fact information.

3.2.1.2 Each SC's Final Schedules shall be posted electronically by the TP within two (2) normal business days after the trading day.

3.2.1.3 Within five (5) normal business days after the later of the actual or scheduled electronic posting of each SC's final Schedules, the SC shall inform the TP of any disagreement with the Final Schedules. Failure by the SC to inform the TP of such disagreement within the specified time period shall constitute acceptance of the Final Schedules as posted. The SC shall notify the TP of a disagreement electronically, with a copy to the Az ISA, and shall include the following information:

- Dispute date;
- Dispute hour;

- Explanation of the dispute; and
- SC contact name, phone number and e-mail address.

3.2.1.4 The TP shall acknowledge receipt of the SC's disagreement within one (1) normal business day.

3.2.1.5 The parties shall endeavor to resolve the disagreement within ten (10) normal business days.

3.2.1.6 The TP shall promptly notify the SC and the Az ISA regarding the resolution of a disagreement.

3.2.1.7 Once a month, concurrent with the TP's issuance of the SC's monthly invoice, the TP shall notify the Az ISA and the impacted SC(s) of any unresolved Schedule disputes and the status thereof. Monthly invoices issued by the TP shall reflect the values posted by the TP unless the TP has notified the SC of changes.

3.2.1.8 Due to the timing of the NERC inadvertent energy checkout process, the TP may need to make changes to the previously posted Final Schedules. In such instance, the TP shall notify the SC of the changes. Within five (5) normal business days after such notification, the SC will notify the TP and the Az ISA of any disagreement with the changed Final Schedules, and the parties shall use the same procedures described in Sections 3.2.1.3 through 3.2.1.5 above.

3.2.2 Option Two:

3.2.2.1 The Schedule verification steps listed below shall be completed electronically or via direct telephone communication.

3.2.2.2 After 2400 hours on each trading day, the TP shall verify with each SC the SC's Final Schedules for the day.

3.2.2.3 Within five (5) normal business days after the trading day, as part of the Control Area checkout process, the TP shall verify with each SC the individual hourly values for each of the SC's Final Schedules.

3.2.2.4 Within ten (10) normal business days after the end of the calendar month in which the trading day occurred, the TP shall contact the SC to correct any discrepancies found in the monthly Control Area checkout process.

3.3 The TP shall use all available information to investigate any after-the-fact disagreements with an SC, including phone recordings, tags, etc.

3.4 Should the TP or the SC believe that a disagreement cannot be resolved pursuant to this Protocol, either or both parties may submit the disagreement to the Az ISA for dispute resolution pursuant to the By-Laws of the Az ISA.

3.5 The TP shall specify the electronic mode of communication for posting Final

Schedules, disagreements, resolution and status of resolution.

Appendices

Appendix A - PM Implementation by Major Function

Appendix B - Phased Implementation of Az ISA PM Obligations

Appendix A
PM Implementation by Major Function

	PM Phase[1]	PM Function Implemented[2]	Implementation Date[3]	Implementation Requirements[4]
1	Phase I	ADR and limited PM oversight that includes temporary[5]: 1. ARNT allocation mechanism in Section 4.3.4.1 of the ARNT Protocol. 2. Must-Run Generation Procedures in Section 6 of the Must-Run Protocol. 3. Imbalance settlement mechanism in Section 3.6.1 of the Energy Imbalance Protocol.	FERC accepts tariff	1. Board approval of implementation details (Implementation Plan) 2. Board approves funding 3. Board approves FERC filing
2	Phase I	Fully administer PM functions with the exception of items 3, 4, 5 and 6.	FERC accepts tariff	1. Ability to hire technical staff on short-term assignments 2. Monitor RTO development 3. Board approval of implementation details (Implementation Plan) 4. Board approves funding for additional staff
3	Phase II	OASIS and ATC Calculation	None	1. Delay in RTO startup 2. Board approval -funding, revised implementation plan
4	Phase II	State wide scheduling	None	1. Delay in RTO startup 2. Board approval - funding, revised implementation plan
5	Phase II	State wide transmission planning	None	1. Delay in RTO startup 2. Board approval - funding, revised implementation plan
6	Phase II	ARNT and EI trading , auction and settlements	None	1. Competitive served retail load reaches 300 MW 2. Business Plan Approved by Board 3. Agreement reached on ARNT and EI functions cost allocations 4. TP funding issues

[1] PM phasing established by April 7, 2000 Board resolution.
[2] PM functions implementation overview ,"Proposed Implementation Plan", approved by Board June 7, 2000
[3] Date for PM function implementation
[4] Meeting listed preconditions prior to implementation
[5] See Item 6 Phase II requirements

Appendix B
Phased Implementation of
Az ISA PM Obligations

PM Section	PM Obligation	Az ISA Impl
	Protocol I Introduction	
3.	Monitor Compliance with Protocols Manual	Phase I
3.	Monitor operations of the Interconnected Transmission System (ITS); insure compliance with FERC-recognized standards of conduct related to transmission access and the operation of the ITS	Phase I
3.	Act on complaints related to application of the Protocols Manual and standards of conduct and resolve other issues related to discriminatory treatment in the provision of transmission service.	Phase I
	Upon implementation of the ARNT auction and energy imbalance trading mechanisms, monitor conditions indicating market anomalies or market inefficiencies and take action to remedy such conditions should they arise.	Phase II
4.	Conduct a survey of available SCs.	Phase I
	Protocol II Definitions	
	Definitions only -- no Az ISA functions or activities to be implemented.	
	Protocol III Total Transmission Capability Determination Principles	
2.	Participate in TTC/Committed Use determinations for the ITS and chair Operating Committee efforts to achieve consistent application of same.	Phase I
2.	Oversee TP determinations of total retail Committed Use reservations.	Phase II
2.	Cause the Az ISA to become an affiliated member of the WSCC and attend specified meetings	Phase I
2.	Participate in SWRTA transmission and joint Az utility planning efforts.	Phase I
2.	Participate in coordination of transmission maintenance schedules among TPs.	Phase I
	Protocol IV Transmission Reservations and OASIS Management Principles	
4.1	Exercise oversight of TPs' OASIS sites ("same-time view") so that it can be actively notified of all new transmission reservation requests and transmission reservation status changes.	Phase I
1.	Administer a single state-wide OASIS (retail and wholesale) until an RTO is functional.	Phase II

4.3, 4.4	Monitor release of ATC; begin development of system for ATC calculation.	Phase II

Protocol V Allocated Retail Network Transmission Protocol

	Initiate dispute resolution procedures in cases of disputes related to ARNT Section4.	Phase I
	Ensure that systems are in place for ARNT auction/trading and exchange of ARNT for ATC.	Phase II
	Post lists on Az ISA website showing: Committed Uses reservations by path and congested interfaces.	Phase II
	Conduct ARNT auctions, post the results, render statements for monies due and owed.	Phase II
	Review SC forecasts of hourly Retail Network Load and insure release of any excess amounts of ARNT and reallocation to other capacity-deficient SCs in the Load Zone.	
	Monitor SC activities and detect market anomalies suggesting "gaming" and take remedial action, as required.	Phase II
	Implement an ARNT trading mechanism, exchange of ARNT for ATC.	Phase II
	Instruct SCs to adjust designated Retail Network Resources to reduce transmission path reservations if they exceed TTC.	Phase II
4.3, 4.2	Reevaluate temporary ARNT mechanism if ARNT auction and trading not in place by 9/1/01 to see if extension is required.	Phase I

Protocol VI Scheduling Protocol

2.	Initiate dispute resolution procedures in cases of disputed scheduling decisions.	Phase I
2.	Upon Az ISA's request, receive from SCs, CAOs and TPs copies of all schedule and schedule changes.	Phase I

Protocol VII Ancillary Services Protocol

	Initiate dispute resolution procedures in cases of disputes regarding Ancillary Services.	Phase I

Protocol VIII Must-Run Generation Protocol

	Calculate and communicate each SC's share of Local Generation Requirement for each hour of the month and each SC's ARNT for each transmission path for each day of the month (once ARNT trading is implemented),	Phase II
	Initiate dispute resolution procedures in cases of disputes regarding Must-Run Generation.	Phase I

Protocol IX Energy Imbalance Protocol

Oversee Trading Entity implementation of Energy Imbalance Procedures.	Phase II
Initiate dispute resolution procedures in cases of disputed Energy Imbalance decisions	Phase I

Protocol X Congestion Management Principles

Post lists on Az ISA website showing: Committed Uses reservations by path and congested interfaces.	Phase II
Initiate dispute resolution procedures in cases of disputes regarding Congestion Management principles.	Phase I

Protocol XI Emergency Operations Protocol

Initiate dispute resolution procedures in cases of disputes related to Emergency Operations.	Phase I

Protocol XII After-The-Fact Checkout Protocol

Initiate dispute resolution procedures in cases of disputes related to After-The-Fact Checkout procedures.	Phase I

ATTACHMENT M

Point-to-Point Transmission Service Products Offered by APS

Pursuant to the North American Electric Standards Board ("NAESB") Wholesale Electric Quadrant ("WEQ") OASIS Business Practice Standards ("WEQ-001"), APS will process the following transmission services pursuant to the provisions of Part II of APS's Open Access Transmission Tariff. APS transmission service products are offered and processed in Pacific Prevailing Time ("PPT") only.

001-2.1.1 Fixed Hourly

The service starts at the beginning of a clock hour and stops at the end of a clock hour.

001-2.1.2 Fixed Daily

The service starts at 00:00 and stops at 24:00 of the same calendar date (same as 00:00 of the next consecutive calendar date).

001-2.1.3 Fixed Weekly

The service starts at 00:00 on Monday and stops at 24:00 of the following Sunday (same as 00:00 of the following Monday).

001-2.1.4 Fixed Monthly

The service starts at 00:00 on the first date of a calendar month and stops at 24:00 on the last date of the same calendar month (same as 00:00 of the first date of the next consecutive month).

001-2.1.5 Fixed Yearly

The service starts at 00:00 on the first date of a calendar year end ends at 24:00 on the last date of the same calendar year (same as 00:00 of the first date of the next consecutive year).

001-2.1.9 Sliding Yearly

The service starts at 00:00 of any date and stops at 00:00 on the same date of the following year. If there is no corresponding date in the following year, the service stops at 24:00 on the last day of the same month in the following year. For example: SLIDING YEARLING service starting on February 29 would stop on February 28 of the following year. The Transmission Provider may limit the start of service to the beginning of a calendar month.

001-2.13 Extended Yearly
The service starts at 00:00 of any date and stops at 00:00 more than one year later. The Transmission Provider may limit the service to be in increments of full years or full calendar months. The Transmission Provider may limit the start of service to the beginning of a calendar month. As allowed by NAESB WEQ-001, APS is limiting this service to full years and will limit the start of service to the beginning of a calendar month.

001-2.14 Next Increment Hourly

The service starts at the beginning of the next clock hour and stops at the end of that clock hour.

Transmission services APS does not offer pursuant to the provisions of Part II of APS's Open Access Transmission Tariff, as defined in Standard WEQ-001 of the NAESB OASIS Business Practice Standards, are shown below. Any OASIS request for these transmission services will be invalidated and the Transmission Customer may resubmit the request in the form of any of the transmission services previously described in this Attachment M as being offered by APS.

001-2.1.6 Sliding Daily (Not Offered by APS)

The service starts at the beginning of any hour of the day and stops exactly 24 hours later at the same time on the next day.

001-2.1.7 Sliding Weekly (Not Offered by APS)

The service starts at 00:00 at any date and stops exactly 168 hours later at 00:00 on the same day of the next week.

001-2.1.8 Sliding Monthly (Not Offered by APS)

The service starts at 00:00 of any date and stops at 00:00 on the same date of the next month (28-31 days later). If there is no corresponding date in the following month, the service stops at 24:00 on the last day of the next month. For example: SLIDING MONTHLY starting at 00:00 on January 30 would stop at 24:00 on February 28 (same as 00:00 March 1).

001-2.10 Extended Daily (Not Offered by APS)

The service starts at any hour of a day and stops more than 24 hours later and less than 168 hours later.

001-2.11 Extended Weekly (Not Offered by APS)

The service starts at 00:00 of any date and stops at 00:00 more than one week later, but less than four weeks later.

001-2.12 Extended Monthly (Not Offered by APS)

The service starts at 00:00 of any date and stops at 00:00 more than one month later, but less than twelve months later.

ATTACHMENT N

Transmission Loading Relief Procedures

The Western Electricity Coordinating Council's ("WECC") Unscheduled Flow Reduction Procedure can be accessed via the WECC website at:

http://www.wecc.biz/documents/library/UFAS/WECC_UnscheduledFlow%20ReductProc_7-14-03.pdf

Attachment O

LGIP and LGIA

STANDARD LARGE GENERATOR

INTERCONNECTION PROCEDURES (LGIP)

including

STANDARD LARGE GENERATOR

INTERCONNECTION AGREEMENT (LGIA)

Standard Large Generator

Interconnection Procedures (LGIP)

(Applicable to Generating Facilities that exceed 20 MW)

TABLE OF CONTENTS

Appendix 5 - Optional Interconnection Study Agreement

Appendix 6 - Standard Large Generator Interconnection Agreement

Appendix 7 - Interconnection Procedures for a Wind Generating Plant

Section 1. Definitions

Adverse System Impact shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

Affected System shall mean an electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Affected System Operator shall mean the entity that operates an Affected System.

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

Ancillary Services shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Applicable Reliability Council shall mean the reliability council applicable to the Transmission System to which the Generating Facility is directly interconnected.

Applicable Reliability Standards shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Transmission System to which the Generating Facility is directly interconnected.

Base Case shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by the Transmission Provider or Interconnection Customer.

Breach shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

Breaching Party shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

Business Day shall mean Monday through Friday, excluding Federal Holidays.

Calendar Day shall mean any day including Saturday, Sunday or a Federal Holiday.

Clustering shall mean the process whereby a group of Interconnection Requests is studied together, instead of serially, for the purpose of conducting the Interconnection System Impact Study.

Commercial Operation shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

Commercial Operation Date of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

Confidential Information shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

Control Area shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by an Applicable Reliability Council.

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

Deposit in Lieu of Site Control shall mean a deposit of $160,000 for an Interconnection Request of up to 75 MW, or $250,000 for an Interconnection Request of greater than 75 MW, that Interconnection Customer submits to Transmission Provider in place of demonstrating Site Control.

Dispute Resolution shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

Distribution System shall mean the Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

Distribution Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Effective Date shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

Emergency Condition shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration

and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

Energy Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or nonfirm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

Engineering & Procurement (E&P) Agreement shall mean an agreement that authorizes the Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

Environmental Law shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

FERC shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Generating Facility shall mean Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Generating Facility Capacity shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other

governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, or any Affiliate thereof.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

Initial Deposit shall mean a deposit of $160,000 for an Interconnection Request of up to 75 MW, or $250,000 for an Interconnection Request of greater than 75 MW, that Interconnection Customer submits to Transmission Provider upon initiating an Interconnection Request.

Initial Synchronization Date shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

In-Service Date shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Provider's Interconnection Facilities to obtain back feed power.

Interconnection Customer shall mean any entity, including the Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission Provider's Transmission System.

Interconnection Customer's Interconnection Facilities shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities shall mean the Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Interconnection Facilities Study shall mean a study conducted by the Transmission Provider or a third party consultant for the Interconnection Customer to determine a list of facilities (including Transmission Provider's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission Provider's Transmission

System. The scope of the study is defined in Section 8 of the Standard Large Generator Interconnection Procedures.

Interconnection Facilities Study Agreement shall mean the form of agreement contained in Appendix 3 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

Interconnection Request shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Standard Large Generator Interconnection Procedures, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission Provider's Transmission System.

Interconnection Service shall mean the service provided by the Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Transmission Provider's Tariff.

Interconnection Study shall mean any of the following studies: the Interconnection System Impact Study and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures.

Interconnection Study Agreement shall mean any of the following studies: the Interconnection System Impact Study and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures.

Interconnection System Impact Study shall mean a technical and engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of Transmission Provider's Transmission System and, if applicable, an Affected System. The study shall identify a list of facilities (including Transmission Provider's Interconnection Facilities and Network Upgrades) to interconnect the Generating Facility, a good faith estimate of the cost of those facilities, and a good faith estimate the time required to interconnect the Generating Facility with the Transmission Provider's Transmission System.

Interconnection System Impact Study Agreement shall mean the form of agreement contained in Appendix 2 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection System Impact Study.

IRS shall mean the Internal Revenue Service.

Joint Operating Committee shall be a group made up of representatives from Interconnection Customers and the Transmission Provider to coordinate operating and technical considerations of Interconnection Service.

Large Generating Facility shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

Loss shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other

obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.

Material Modification shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Metering Equipment shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

NERC shall mean the North American Electric Reliability Council or its successor organization.

Network Resource shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

Network Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Network Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the interconnection of the Large Generating Facility to the Transmission Provider's Transmission System.

Notice of Dispute shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

Optional Interconnection Study shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

Optional Interconnection Study Agreement shall mean the form of agreement contained in Appendix 4 of the Standard Large Generator Interconnection Procedures for conducting the Optional Interconnection Study.

Party or Parties shall mean Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Change of Ownership shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

Point of Interconnection shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider's Transmission System.

Queue Position shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the Transmission Provider.

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Scoping Meeting shall mean the meeting between representatives of the Interconnection Customer and Transmission Provider conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

Site Control shall mean documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose.

Small Generating Facility shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

Stand Alone Network Upgrades shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Transmission Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement.

Standard Large Generator Interconnection Agreement (LGIA) shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Transmission Provider's Tariff.

Standard Large Generator Interconnection Procedures (LGIP) shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Transmission Provider's Tariff.

Start Date shall mean that actual date of the start of the System Impact Study as evidenced by the initiation of the development of the required Base Case(s), or the initiation of the technical study work, i.e., start of the powerflow/stability computer runs, whichever is applicable.

System Protection Facilities shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission Provider's Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Transmission Provider's Transmission System or on other delivery systems or other generating systems to which the Transmission Provider's Transmission System is directly connected.

Tariff shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

Transmission Owner shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

Transmission Provider shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission Provider's Interconnection Facilities shall mean all facilities and equipment owned, controlled, or operated by the Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Transmission System shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff.

Trial Operation shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

Section 2. Scope and Application

2.1 Application of Standard Large Generator Interconnection Procedures.

Sections 2 through 13 apply to processing an Interconnection Request pertaining to a Large Generating Facility.

2.2 Comparability.

Transmission Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this LGIP. Transmission Provider will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Generating Facilities are owned by Transmission Provider, its subsidiaries or Affiliates or others.

2.3 Base Case Data.

In accordance with the Applicable Reliability Council policies, Transmission Provider shall provide base power flow, short circuit and stability databases, including all underlying assumptions, and contingency list upon request subject to confidentiality provisions in LGIP Section 13.1. Transmission Provider is permitted to require that Interconnection Customer sign a confidentiality agreement before the release of commercially sensitive information or Critical Energy Infrastructure Information in the Base Case data. Such databases and lists, hereinafter referred to as Base Cases, shall include all (1) generation projects and (ii) transmission projects, including merchant transmission projects that are proposed for the Transmission System for which a transmission expansion plan has been submitted and approved by the applicable authority.

2.4 No Applicability to Transmission Service.

Nothing in this LGIP shall constitute a request for transmission service or confer upon an Interconnection Customer any right to receive transmission service.

2.5 EIM Requirements.

The Interconnection Customer shall have a continuing duty to comply with Attachment Q of this Tariff as applicable.

Section 3. Interconnection Requests

3.1 General.

An Interconnection Customer shall submit to Transmission Provider an Interconnection Request in the form of Appendix 1 to this LGIP and the Initial Deposit of $160,000 for an Interconnection Request of up to 75 MW or $250,000 for an Interconnection Request of greater than 75 MW. Transmission Provider shall apply the Initial Deposit toward the cost of the required Interconnection Study. Interconnection Customer shall submit a separate Interconnection Request for each site and may submit multiple Interconnection Requests for a single site. Interconnection Customer must submit an Initial Deposit with each Interconnection Request even when more than one request is submitted for a single site. An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests.

At Interconnection Customer's option, Transmission Provider and Interconnection Customer will identify alternative Point(s) of Interconnection and configurations at the Scoping Meeting to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. Interconnection Customer will select the definitive Point(s) of Interconnection to be studied no later than the execution of the Interconnection System Impact Study Agreement.

3.2 Identification of Types of Interconnection Services.

At the time the Interconnection Request is submitted, Interconnection Customer must request either Energy Resource Interconnection Service or Network Resource Interconnection Service, as described; provided, however, any Interconnection Customer requesting Network Resource Interconnection Service may also request that it be concurrently studied for Energy Resource Interconnection Service, up to the point when an Interconnection Facility Study Agreement is executed. Interconnection Customer may then elect to proceed with Network Resource Interconnection Service or to proceed under a lower level of interconnection service to the extent that only certain upgrades will be completed.

3.2.1 Energy Resource Interconnection Service.

3.2.1.1 The Product. Energy Resource Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Transmission System and be eligible to deliver the Large Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. Energy Resource Interconnection Service does not in and of itself convey any right to deliver electricity to any specific customer or Point of Delivery.

3.2.1.2 The Study. The study consists of short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The short circuit/fault duty analysis would identify direct Interconnection Facilities required and the Network Upgrades necessary to address short circuit issues associated with the Interconnection Facilities.

The stability and steady state studies would identify necessary upgrades to allow full output of the proposed Large Generating Facility and would also identify the maximum allowed output, at the time the study is performed, of the interconnecting Large Generating Facility without requiring additional Network Upgrades.

3.2.2 Network Resource Interconnection Service.

3.2.2.1 The Product. Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Large Generating Facility (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service Allows Interconnection Customer's Large Generating Facility to be designated as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur.

3.2.2.2 The Study. The Interconnection Study for Network Resource Interconnection Service shall assure that Interconnection Customer's Large Generating Facility meets the requirements for Network Resource Interconnection Service and as a general matter, that such Large Generating Facility's interconnection is also studied with Transmission Provider's Transmission System at peak load, under a variety of severely stressed conditions, to determine whether, with the Large Generating Facility at full output, the aggregate of generation in the local area can be delivered to the aggregate of load on Transmission Provider's Transmission System, consistent with Transmission Provider's reliability criteria and procedures. This approach assumes that some portion of existing Network Resources are displaced by the output of Interconnection Customer's Large Generating Facility. Network Resource Interconnection Service in and of itself does not convey any right to deliver electricity to any specific customer or Point of Delivery. The Transmission Provider may also study the Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer the Transmission Provider must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

3.3 Valid Interconnection Request.

3.3.1 Initiating an Inter connection Request.

To initiate an Interconnection Request, Interconnection Customer must submit all of the following: (i) Initial Deposit of $160,000 for an Interconnection Request of up to 75 MW or $250,000 for an Interconnection Request greater than 75 MW, (ii) a completed application in the form of Appendix 1, and (iii) demonstration of Site Control or a Deposit in Lieu of Site Control in the amount of $160,000 for an Interconnection Request of up to 75 MW or $250,000 for an Interconnection Request

greater than 75 MW. Such Deposits shall be applied toward any Interconnection Studies pursuant to the Interconnection Request.

In the event the Interconnection Request is withdrawn or deemed withdrawn after the Transmission Provider has initiated the System Impact Study (SIS), all monies are refundable except actual costs incurred. If the Interconnection Customer has not demonstrated Site Control as of the Start Date, $25,000 of the Deposit in Lieu of Site Control shall be non-refundable.

In the event the Interconnection Request is withdrawn or deemed withdrawn after the Transmission Provider has initiated the System Impact Study (SIS), $25,000 of all monies received shall be non-refundable, in addition to all costs incurred to date.

In the event the Interconnection Request is withdrawn or deemed withdrawn after the execution of the Facilities Study Agreement, in accordance with Section 8.1, $50,000 of the Initial Deposit will be non-refundable. If the Interconnection Customer has not demonstrated Site Control at the time of this withdrawal, $50,000 of the Deposit in Lieu of Site Control shall be non-refundable.

These non-refundable amounts shall not be cumulative and shall be in addition to the actual costs incurred by Transmission Provider up to the date of the withdrawal.

The expected Commercial Operation Date of the new Large Generating Facility or increase in capacity of the existing Generating Facility shall be no more than the process window for the regional expansion planning period (or in the absence of a regional planning process, the process window for Transmission Provider's expansion planning period) not to exceed seven years from the date the Interconnection Request is received by Transmission Provider, unless Interconnection Customer demonstrates that engineering, permitting and construction of the new Large Generating Facility or increase in capacity of the existing Generating Facility will take longer than the regional expansion planning period. The Commercial Operation Date may succeed the date the Interconnection Request is received by Transmission Provider by a period up to ten years, or longer where Interconnection Customer and Transmission Provider agree, such agreement not to be unreasonably withheld.

3.3.2 Acknowledgment of Interconnection Request.

Transmission Provider shall acknowledge receipt of the Interconnection Request within five (5) Business Days of receipt of the request and attach a copy of the received Interconnection Request to the acknowledgement.

3.3.3 Deficiencies in Interconnection Request.

An Interconnection Request will not be considered to be a valid request until all items in Section 3.3.1 have been received by Transmission Provider. If an Interconnection Request fails to meet the requirements set forth in Section 3.3.1, Transmission Provider shall notify Interconnection Customer within five (5) Business Days of receipt of the initial Interconnection Request of the reasons for such failure and that the Interconnection Request does not constitute a valid request. Interconnection Customer shall provide Transmission Provider the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice. Failure by Interconnection Customer to comply with this Section 3.3.3 shall be treated in accordance with Section 3.6.

3.3.4 Scoping Meeting.

Within ten (10) Business Days after receipt of a valid Interconnection Request, Transmission Provider shall establish a date agreeable to Interconnection Customer for the Scoping Meeting, and such date shall be no later than thirty (30) Calendar Days from receipt of the valid Interconnection Request, unless otherwise mutually agreed upon by the Parties.

The purpose of the Scoping Meeting shall be to discuss alternative interconnection options, to exchange information including any transmission data that would reasonably be expected to impact such interconnection options, to analyze such information and to determine the potential feasible Points of Interconnection. Transmission Provider and Interconnection Customer will bring to the meeting such technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues as may be reasonably required to accomplish the purpose of the meeting. Transmission Provider and Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, Interconnection Customer shall designate its Point of Interconnection and one or more available alternative Point(s) of Interconnection. The duration of the meeting shall be sufficient to accomplish its purpose.

3.4 OASIS Posting.

Transmission Provider will maintain on its OASIS a list of all Interconnection Requests. The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected In-Service Date; (v) the status of the Interconnection Request, including Queue Position; (vi) the type of Interconnection Service being requested; and (vii) the availability of any studies related to the Interconnection Request; (viii) the date of the Interconnection Request; (ix) the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine and fuel type); and (x) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed. Except in the case of an Affiliate, the list will not disclose the identity of Interconnection Customer until Interconnection Customer executes an LGIA or requests that Transmission Provider file an unexecuted LGIA with FERC. Before holding a Scoping Meeting with its Affiliate, Transmission Provider shall post on OASIS an advance notice of its intent to do so. Transmission Provider shall post to its OASIS site any deviations from the study timelines set forth herein. Interconnection Study reports and Optional Interconnection Study reports shall be posted to Transmission Provider's OASIS site subsequent to the meeting between Interconnection Customer and Transmission Provider to discuss the applicable study results. Transmission Provider shall also post any known deviations in the Large Generating Facility's In-Service Date.

3.5 Coordination with Affected Systems.

Transmission Provider will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System Operators and, if possible, include those results (if available) in its applicable

Interconnection Study within the time frame specified in this LGIP. Transmission Provider will include such Affected System Operators in all meetings held with Interconnection Customer as required by this LGIP. Interconnection Customer will cooperate with Transmission Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A Transmission Provider which may be an Affected System shall cooperate with Transmission Provider with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems. The Transmission Provider has the right to delay and/or prevent energization of the Interconnection Facilities if the Interconnection Customer does not fully address all Affected System issues associated with the Interconnection Request. If the Interconnection Facilities are not energized, and the Commercial Operation Date is not achieved, within the timeframe specified in Section 3.3.1 of this LGIP, the Interconnection Request will be deemed withdrawn and the LGIA will be terminated.

3.6 Withdrawal.

Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to Transmission Provider. In addition, if Interconnection Customer fails to adhere to all requirements of this LGIP, except as provided in Section 13.5 (Disputes), Transmission Provider shall deem the Interconnection Request to be withdrawn and shall provide written notice to Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Upon receipt of such written notice, Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cures the deficiency or to notify Transmission Provider of its intent to pursue Dispute Resolution.

Withdrawal shall result in the loss of Interconnection Customer's Queue Position. If an Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during Dispute Resolution, Interconnection Customer's Interconnection Request is eliminated from the queue until such time that the outcome of Dispute Resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to Transmission Provider all costs that Transmission Provider prudently incurs with respect to that Interconnection Request prior to Transmission Provider's receipt of notice described above. Interconnection Customer must pay all monies due to Transmission Provider before it is allowed to obtain any Interconnection Study data or results.

Transmission Provider shall (i) update the OASIS Queue Position posting and (ii) refund to Interconnection Customer any portion of Interconnection Customer's deposit or study payments that exceeds the costs that Transmission Provider has incurred, including interest calculated in accordance with section 35.19a(a)(2) of FERC's regulations. In the event of such withdrawal, Transmission Provider, subject to the confidentiality provisions of Section 13.1, shall provide, at Interconnection Customer's request, all information that Transmission Provider developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

Section 4. Queue Position

4.1 General.

Transmission Provider shall assign a Queue Position based upon the date and time of receipt of the valid Interconnection Request; provided that, if the sole reason an Interconnection Request is not valid is the lack of required information on the application form, and Interconnection Customer provides such information in accordance with Section 3.3.3, then Transmission Provider shall assign Interconnection Customer a Queue Position based on the date the application form was originally filed. Moving a Point of Interconnection shall result in a lowering of Queue Position if it is deemed a Material Modification under Section 4.4.3.

The Queue Position of each Interconnection Request will be used to determine the order of performing the Interconnection Studies and determination of cost responsibility for the facilities necessary to accommodate the Interconnection Request. A higher queued Interconnection Request is one that has been placed "earlier" in the queue in relation to another Interconnection Request that is lower queued.

Transmission Provider may allocate the cost of the common upgrades for clustered Interconnection Requests without regard to Queue Position.

4.2 Clustering.

Interconnection Requests are to be studied in clusters for the purpose of the Interconnection System Impact Study and the Interconnection Facilities Study.

Clustering shall be implemented on the basis of Queue Position and geographic location of the proposed Interconnection Point on the Transmission Provider's Transmission System. All Interconnection Requests received during the second and third quarters of a given year (i.e., beginning April 1 and closing September 30) will be grouped into one "Queue Cluster Window," and all Interconnection Requests received during the fourth quarter of a year and the first quarter of the following year (i.e., beginning October 1 and closing March 31 of the following year) will be placed into a separate "Queue Cluster Window." Interconnection Requests shall be grouped in their respective Queue Cluster Window and by geographical areas, and shall be studied together for Network Resource Interconnection Service without regard to the nature of the requested Interconnection Service, whether Energy Resource Interconnection Service or Network Resource Interconnection Service. The deadline for completing all Interconnection System Impact Studies for which an Interconnection System Impact Study Agreement has been executed during a Queue Cluster Window shall be in accordance with Section 7.4, for all Interconnection Requests assigned to the same Queue Cluster Window. Transmission Provider may study an Interconnection Request separately to the extent warranted by Good Utility.

Practice based upon the electrical remoteness of the proposed Large Generating Facility.

Any changes to the established Queue Cluster Window interval and opening or closing dates shall be announced with a posting on Transmission Provider's OASIS beginning at least one hundred and eighty (180) Calendar Days in advance of the change and continuing thereafter through the end date of the first Queue Cluster Window that is to be modified.

4.2.1 Cluster Window Transition Period

The first Queue Cluster Window will commence upon the first Window deadline following Commission approval of the Queue Cluster Windows.

4.3 Transferability of Queue Position.

An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change.

4.4 Modifications.

Interconnection Customer shall submit to Transmission Provider, in writing, modifications to any information provided in the Interconnection Request. Interconnection Customer shall retain its Queue Position if the modifications are in accordance with Sections 4.4.1, 4.4.2 or 4.4.5, or are determined not to be Material Modifications pursuant to Section 4.4.3.

Notwithstanding the above, during the course of the Interconnection Studies, either Interconnection Customer or Transmission Provider may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes are acceptable to Transmission Provider and Interconnection Customer, such acceptance not to be unreasonably withheld, Transmission Provider shall modify the Point of Interconnection and/or configuration in accordance with such changes and proceed with any re-studies necessary to do so in accordance with Section 7.6 and Section 8.5 as applicable and Interconnection Customer shall retain its Queue Position.

4.4.1 Prior to the return of the executed Interconnection System Impact Study Agreement to Transmission Provider, modifications permitted under this Section shall include specifically: (a) a decrease of up to 60 percent of electrical output (MW) of the proposed project; (b) modifying the technical parameters associated with the Large Generating Facility technology or the Large Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. For plant increases, the incremental increase in plant output will go to the end of the queue for the purposes of cost allocation and study analysis.

4.4.2 Prior to the return of the executed Interconnection Facility Study Agreement to Transmission Provider, the modifications permitted under this Section shall include specifically: (a) a 15 percent decrease of electrical output (MW), and (b) Large Generating Facility technical parameters associated with modifications to Large Generating Facility technology and transformer impedances; provided, however, the incremental costs associated with those modifications are the responsibility of the requesting Interconnection Customer.

4.4.3 Prior to making any modification other than those specifically permitted by Sections 4.4.1, 4.4.2, and 4.4.5, Interconnection Customer may first request that Transmission Provider evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, Transmission Provider shall evaluate the proposed modifications prior to making them and inform Interconnection Customer in writing of whether the modifications would

constitute a Material Modification. Any change to the Point of Interconnection, except those deemed acceptable under Sections 4.4.1, 7.2, or so allowed elsewhere, shall constitute a Material Modification. Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

4.4.4 Upon receipt of Interconnection Customer's request for modification permitted under this Section 4.4, Transmission Provider shall commence and perform any necessary additional studies as soon as practicable, but in no event shall Transmission Provider commence such studies later than thirty (30) Calendar Days after receiving notice of Interconnection Customer's request. Any additional studies resulting from such modification shall be done at Interconnection Customer's cost.

4.4.5 Extensions of less than three (3) cumulative years in the Commercial Operation Date of the Large Generating Facility to which the Interconnection Request relates are not material and should be handled through construction sequencing; provided, however, that extensions may necessitate a determination of whether the Generating Facility will retain its WECC accepted rating status and whether additional studies are required pursuant to the Applicable Reliability Standards.

Section 5. Procedures for Interconnection Requests Submitted Prior to Effective Date of Standard Large Generator Interconnection Procedures

5.1 Queue Position for Pending Requests.

5.1.1 Any Interconnection Customer assigned a Queue Position prior to the effective date of this LGIP shall retain that Queue Position.

5.1.1.1 If an Interconnection Study Agreement has not been executed as of the effective date of this LGIP, then such Interconnection Study, and any subsequent Interconnection Studies, shall be processed in accordance with this LGIP.

5.1.1.2 If an agreement termed an Interconnection Feasibility Study Agreement has been executed as of the effective date of this LGIP, and the study has been initiated, then such study shall be completed under the terms of the Agreement.

5.1.1.3 If an agreement termed an Interconnection Feasibility Study Agreement has been executed as of the effective date of this LGIP, but the study has not been initiated, then any study shall be performed under the terms of this LGIP.

5.1.1.4 If an Interconnection Study Agreement has been executed prior to the effective date of this LGIP, such Interconnection Study shall be completed in accordance with the terms of such agreement. With respect to any remaining studies for which an Interconnection Customer has not signed an Interconnection Study Agreement prior to the effective date of the LGIP, Transmission Provider must go forward with the completion of the necessary Interconnection Studies (for which it does not have a signed Interconnection Studies Agreement) in accordance with this LGIP.

5.1.1.5 If an LGIA has been submitted to FERC for approval before the effective date of the LGIP, then the LGIA would be grandfathered.

5.2 New Transmission Provider.

If Transmission Provider transfers control of its Transmission System to a successor Transmission Provider during the period when an Interconnection Request is pending, the original Transmission Provider shall transfer to the successor Transmission Provider any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection (less any non-refundable amounts). Any difference between such net amount and the deposit or payment required by this LGIP shall be paid by or refunded to the Interconnection Customer, as appropriate. The original Transmission Provider shall coordinate with the successor Transmission Provider to complete any Interconnection Study, as appropriate, that the original Transmission Provider has begun but has not completed. If Transmission Provider has tendered a draft LGIA to Interconnection Customer but Interconnection Customer has not either executed the LGIA or requested the filing of an unexecuted LGIA with FERC, unless otherwise provided, Interconnection Customer must complete negotiations with the successor Transmission Provider.

Section 6. [Reserved for Future Use]

Section 7. Interconnection System Impact Study

7.1 Interconnection System Impact Study Agreement.

Simultaneously with the acknowledgement of a valid Interconnection Request, Transmission Provider shall provide to Interconnection Customer an Interconnection System Impact Study Agreement in the form of Appendix 2 of this LGIP. The Interconnection System Impact Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Interconnection System Impact Study. Within five (5) Business Days following the Scoping Meeting, Interconnection Customer shall specify for inclusion in the attachment to the Interconnection System Impact Study Agreement the Point(s) of Interconnection. Within five (5) Business Days following Transmission Provider's receipt of such designation, Transmission Provider shall tender to Interconnection Customer the Interconnection System Impact Study Agreement signed by Transmission Provider, which includes a good faith estimate of the cost and estimated timeframe for completing the Interconnection System Impact Study.

7.2 Execution of Interconnection System Impact Study Agreement.

Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to Transmission Provider no later than thirty (30) Calendar Days after its receipt.

On or before the return of the executed Interconnection System Impact Study Agreement to Transmission Provider, Interconnection Customer shall provide the technical data called for in Appendix 1, Attachment A.

If Interconnection Customer does not provide all such technical data called for in Appendix 1, Attachment Awhen it delivers the Interconnection System Impact Study Agreement, Transmission Provider shall notify Interconnection Customer of the deficiency within five (5) Business Days of the receipt of the executed Interconnection System Impact Study Agreement and Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided, however, such deficiency does not include failure to deliver the executed Interconnection System Impact Study Agreement.

If the Interconnection System Impact Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting, a substitute Point of Interconnection identified by either Interconnection Customer or Transmission Provider, and acceptable to the other, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and restudies shall be completed pursuant to Section 7.6 as applicable. For the purpose of this Section 7.2, if Transmission Provider and Interconnection Customer cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified pursuant to Section 3.3.4, shall be the substitute.

7.3 Scope of Interconnection System Impact Study.

The Interconnection System Impact Study shall evaluate the impact of the proposed interconnection on the reliability of the Transmission System. The Interconnection System Impact Study will consider the Base Case as well as all generating facilities (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued interconnection) that, on the date the Interconnection System Impact Study is commenced: (i) are directly interconnected to the Transmission System; (ii) are

interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the Transmission System; and (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.

The Interconnection System Impact Study will consist of a short circuit analysis, a stability analysis, and a power flow analysis. The Interconnection System Impact Study will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The Interconnection System Impact Study will provide a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility and a non-binding good faith estimated time to construct.

7.4 Interconnection System Impact Study Procedures,

Transmission Provider shall coordinate the Interconnection System Impact Study with any Affected System that is affected by the Interconnection Request pursuant to Section 3.5 above. Transmission Provider shall utilize existing studies to the extent practicable when it performs the study. Transmission Provider shall use Reasonable Efforts to complete the Interconnection System Impact Study within ninety (90) Calendar Days after the receipt of the Interconnection System Impact Study Agreement or notification to proceed, study payment, and technical data. If Transmission Provider uses Clustering, Transmission Provider shall use Reasonable Efforts to deliver a completed Interconnection System Impact Study within ninety (90) Calendar Days after the close of the Queue Cluster Window.

At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the required time frame for completing the Interconnection System Impact Study, Transmission Provider shall notify Interconnection Customer as to the schedule status of the Interconnection System Impact Study. If Transmission Provider is unable to complete the Interconnection System Impact Study within the time period, it shall notify Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. Upon request, Transmission Provider shall provide Interconnection Customer all supporting documentation, workpapers and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the Interconnection System Impact Study, subject to confidentiality arrangements consistent with Section 13.1.

7.5 Meeting with Transmission Provider.

Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection System Impact Study, unless otherwise mutually agreed upon by the Parties.

7.6 Re-Study.

If Re-Study of the Interconnection System Impact Study is required due to a higher queued project dropping out of the queue, or a modification of a higher queued project subject to Section 4.4, or re-designation of the Point of Interconnection pursuant to

Section 7.2 Transmission Provider shall notify Interconnection Customer(s) in writing. The Transmission Provider shall use Reasonable Efforts to complete the Re-Study in no longer than sixty (60) Calendar Days from the date of notice. Any cost of Re-Study shall first utilize the funds remaining of the non-refundable portion of the withdrawing applicant's Initial Deposit as per Section 3.3.1, then the funds remaining of the Initial Deposit(s) of all Interconnection Customer(s) being re-studied, and, if these funds are insufficient, the Interconnection Customer is responsible for the remaining actual cost incurred for the re-study.

Section 8. Interconnection Facilities Study

8.1 Interconnection Facilities Study Agreement.

Simultaneously with the delivery of the Interconnection System Impact Study to Interconnection Customer, Transmission Provider shall provide to Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 3 to this LGIP. The Interconnection Facilities Study Agreement shall provide that Interconnection Customer shall compensate Transmission Provider for the actual cost of the Interconnection Facilities Study. Within three (3) Business Days following the Interconnection System Impact Study results meeting, Transmission Provider shall provide to Interconnection Customer a non-binding good faith estimate of the cost and timeframe for completing the Interconnection Facilities Study. Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to Transmission Provider within thirty (30) Calendar Days after its receipt, together with the required technical data.

8.1.1 Transmission Provider shall invoice Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay invoiced amounts within thirty (30) Calendar Days of receipt of invoice. Transmission Provider shall continue to hold the amounts on deposit until settlement of the final invoice.

8.2 Scope of Interconnection Facilities Study.

The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Interconnection Facility to the Transmission System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Transmission Provider's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities.

8.3 Interconnection Facilities Study Procedures.

Transmission Provider shall coordinate the Interconnection Facilities Study with any Affected System pursuant to Section 3.5 above. Transmission Provider shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. Transmission Provider shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to Interconnection Customer within ninety (90) Calendar Days after receipt of an executed Interconnection Facilities Study Agreement.

At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the required time frame for completing the Interconnection Facilities Study, Transmission Provider shall notify Interconnection Customer as to the schedule status of the Interconnection Facilities Study. If Transmission Provider is unable to complete the Interconnection Facilities Study and issue a draft Interconnection Facilities Study report within the time required, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required.

Interconnection Customer may, within thirty (30) Calendar Days after receipt of the draft report, provide written comments to Transmission Provider, which Transmission Provider shall include in the final report. Transmission Provider shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. Transmission Provider may reasonably extend such fifteen-day period upon notice to Interconnection Customer if Interconnection Customer's comments require Transmission Provider to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Report. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 13.1.

8.4 Meeting with Transmission Provider.

Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study, unless otherwise mutually agreed upon by the Parties.

8.5 Re-Study.

If Re-Study of the Interconnection Facilities Study is required due to a higher queued project dropping out of the queue or a modification of a higher queued project pursuant to Section 4.4, Transmission Provider shall so notify Interconnection Customer(s) in writing. The Transmission Provider shall use Reasonable Efforts to complete the Re-Study in no longer than sixty (60) Calendar Days from the date of notice. Any cost of Re-Study shall first utilize the funds remaining of the withdrawing applicant's Initial Deposit(s) of all Interconnection Customer(s) being re-studied, and, if these funds are insufficient, the remaining cost is borne by the Interconnection Customer(s) being re-studied.

Section 9. Engineering & Procurement ('E&P') Agreement.

Prior to executing an LGIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and Transmission Provider shall offer the Interconnection Customer, an E&P Agreement that authorizes Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, Transmission Provider shall not be obligated to offer an E&P Agreement if Interconnection Customer is in Dispute Resolution as a result of an allegation that Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the LGIP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer's Queue Position or In-Service Date. The E&P Agreement shall provide for Interconnection Customer to pay the cost of all activities authorized by Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If Interconnection Customer withdraws its application for interconnection or either Party terminates the E&P Agreement, to the extent the equipment ordered can be canceled under reasonable terms, Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, Transmission Provider may elect: (i) to take title to the equipment, in which event Transmission Provider shall refund Interconnection Customer any amounts paid by Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to Interconnection Customer, in which event Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

Section 10. Optional Interconnection Study

10.1 Optional Interconnection Study Agreement.

On or after the date when Interconnection Customer receives Interconnection System Impact Study results, Interconnection Customer may request, and Transmission Provider shall perform a reasonable number of Optional Studies. The request shall describe the assumptions that Interconnection Customer wishes Transmission Provider to study within the scope described in Section 10.2. Within five (5) Business Days after receipt of a request for an Optional Interconnection Study, Transmission Provider shall provide to Interconnection Customer an Optional Interconnection Study Agreement in the form of Appendix 5.

The Optional Interconnection Study Agreement shall: (i) specify the technical data that Interconnection Customer must provide for each phase of the Optional Interconnection Study, (ii) specify Interconnection Customer's assumptions as to which Interconnection Requests with earlier queue priority dates will be excluded from the Optional Interconnection Study case and assumptions as to the type of interconnection service for Interconnection Requests remaining in the Optional Interconnection Study case, and (iii) Transmission Provider's estimate of the cost of the Optional Interconnection Study. To the extent known by Transmission Provider, such estimate shall include any costs expected to be incurred by any Affected System whose participation is necessary to complete the Optional Interconnection Study. Notwithstanding the above, Transmission Provider shall not be required as a result of an Optional Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request.

Interconnection Customer shall execute the Optional Interconnection Study Agreement within ten (10) Business Days of receipt and deliver the Optional Interconnection Study Agreement, the technical data and a $25,000 deposit to Transmission Provider.

10.2 Scope of Optional Interconnection Study.

The Optional Interconnection Study will consist of a sensitivity analysis based on the assumptions specified by Interconnection Customer in the Optional Interconnection Study Agreement. The Optional Interconnection Study will also give a good faith estimate of Transmission Provider's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide Interconnection Service based upon the results of the Optional Interconnection Study. The Optional Interconnection Study shall be performed solely for informational purposes. Transmission Provider shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the types of Interconnection Services that are being studied. Transmission Provider shall utilize existing studies to the extent practicable in conducting the Optional Interconnection Study.

10.3 Optional Interconnection Study Procedures.

The executed Optional Interconnection Study Agreement, the prepayment, and technical and other data called for therein must be provided to Transmission Provider within ten (10) Business Days of Interconnection Customer receipt of the Optional Interconnection Study Agreement. Transmission Provider shall use Reasonable Efforts to complete the Optional Interconnection Study within a mutually agreed upon time period specified within the Optional Interconnection Study Agreement. If Transmission Provider is unable to complete the Optional Interconnection Study within such time period, it shall

notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required. Any difference between the study deposit and the actual cost of the study shall be paid to Transmission Provider or refunded to Interconnection Customer, as appropriate. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation and workpapers and databases or data developed in the preparation of the Optional Interconnection Study, subject to confidentiality arrangements consistent with Section 13.1.

Section 11. Standard Large Generator Interconnection Agreement (LGIA)

11.1 Tender.

Interconnection Customer shall tender comments on the draft Interconnection Facilities Study Report within thirty (30) Calendar Days of receipt of the report. Within thirty (30) Calendar Days after the comments are submitted, Transmission Provider shall tender a draft LGIA, together with draft appendices. The draft LGIA shall be in the form of Transmission Provider's FERC-approved standard form LGIA, which is in Appendix 6. Interconnection Customer shall execute and return the completed draft appendices within thirty (30) Calendar Days.

11.2 Negotiation.

Notwithstanding Section 11.1, at the request of Interconnection Customer Transmission Provider shall begin negotiations with Interconnection Customer concerning the appendices to the LGIA at any time after Interconnection Customer executes the Interconnection Facilities Study Agreement. Transmission Provider and Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) Calendar Days after tender of the final Interconnection Facilities Study Report. If Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft LGIA pursuant to Section 11.1 and request submission of the unexecuted LGIA with FERC or initiate Dispute Resolution procedures pursuant to Section 13.5. If Interconnection Customer requests termination of the negotiations, but within sixty (60) Calendar Days thereafter fails to request either the filing of the unexecuted LGIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if Interconnection Customer has not executed the LGIA, requested filing of an unexecuted LGIA, or initiated Dispute Resolution procedures pursuant to Section 13.5 within sixty (60) Calendar Days of tender of draft LGIA, it shall be deemed to have withdrawn its Interconnection Request. Transmission Provider shall provide to Interconnection Customer a final LGIA within fifteen (15) Business Days after the completion of the negotiation process.

11.3 Execution and Filing.

Within fifteen (15) Business Days after receipt of the final LGIA, Interconnection Customer shall provide Transmission Provider (A) reasonable evidence that continued Site Control or (B) posting of $250,000, non-refundable additional security, which shall be applied toward future construction costs. At the same time, Interconnection Customer also shall provide reasonable evidence that one or more of the following milestones in the development of the Large Generating Facility, at Interconnection Customer election, has been achieved: (i) the execution of a contract for the supply or transportation of fuel to the Large Generating Facility; (ii) the execution of a contract for the supply of cooling water to the Large Generating Facility; (iii) execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Large Generating Facility; (iv) execution of a contract for the sale of electric energy or capacity from the Large Generating Facility; or (v) application for an air, water, or land use permit.

Interconnection Customer shall either: (i) execute two originals of the tendered LGIA and return them to Transmission Provider; or (ii) request in writing that Transmission Provider file with FERC an LGIA in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the two executed originals of the

tendered LGIA (if it does not conform with a FERC-approved standard form of interconnection agreement) or the request to file an unexecuted LGIA, Transmission Provider shall file the LGIA with FERC, together with its explanation of any matters as to which Interconnection Customer and Transmission Provider disagree and support for the costs that Transmission Provider proposes to charge to Interconnection Customer under the LGIA. An unexecuted LGIA should contain terms and conditions deemed appropriate by Transmission Provider for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted LGIA, they may proceed pending FERC action.

11.4 Commencement of Interconnection Activities.

If Interconnection Customer executes the final LGIA, Transmission Provider and Interconnection Customer shall perform their respective obligations in accordance with the terms of the LGIA, subject to modification by FERC. Upon submission of an unexecuted LGIA, Interconnection Customer and Transmission Provider shall promptly comply with the unexecuted LGIA, subject to modification by FERC.

Section 12. Construction of Transmission Provider's Interconnection Facilities and Network Upgrades

12.1 Schedule.

Transmission Provider and Interconnection Customer shall negotiate in good faith concerning a schedule for the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades.

12.2 Construction Sequencing.

12.2.1 General.

In general, the In-Service Date of an Interconnection Customers seeking interconnection to the Transmission System will determine the sequence of construction of Network Upgrades.

12.2.2 Advance Construction of Network Upgrades that are an Obligation of an Entity other than Interconnection Customer.

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Transmission Provider advance to the extent necessary the completion of Network Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer, (ii) are necessary to support such In-Service Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than Interconnection Customer that is seeking interconnection to the Transmission System, in time to support such In-Service Date. Upon such request, Transmission Provider will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Provider: (i) any associated expediting costs and (ii) the cost of such Network Upgrades.

Transmission Provider will refund to Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the LGIA. Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that Transmission Provider has not refunded to Interconnection Customer. Payment by that entity shall be due on the date that it would have been due had there been no request for advance construction. Transmission Provider shall forward to Interconnection Customer the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to Interconnection Customer. Transmission Provider then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Article 11.4 of the LGIA.

12.2.3 Advancing Construction of Network Upgrades that are Part of an Expansion Plan of the Transmission Provider.

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Transmission Provider advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such In-Service Date and (ii) would otherwise not be completed, pursuant to an expansion plan of Transmission Provider, in time to support such In-Service Date. Upon such request, Transmission Provider will use Reasonable Efforts to

advance the construction of such Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Provider any associated expediting costs. Interconnection Customer shall be entitled to transmission credits, if any, for any expediting costs paid.

12.2.4 Amended Interconnection System Impact Study.

An Interconnection System Impact Study will be amended to determine the facilities necessary to support the requested In-Service Date. This amended study will include those transmission and Large Generating Facilities that are expected to be in service on or before the requested In-Service Date.

Section 13. Miscellaneous

13.1 Confidentiality.

Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of an LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

APS may perform study work using WECC data (power flow, stability, and disturbance monitoring data) for nonmembers provided that the WECC data are not provided to the nonmember. Under such arrangements the nonmembers are permitted to look at the data in the APS office to gain an understanding of the study results, but are not permitted to have the data or a copy of the data. Interconnection Customer must also sign the WECC Nonmember Confidentiality Agreement in accordance with regional Reliability Council policies.

13.1.1 Scope.

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of the LGIA; or (6) is required, in accordance with Section 13.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

13.1.2 Release of Confidential Information.

Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or

to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section 13.1 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 13.1.

13.1.3 Rights.

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

13.1.4 No Warranties.

By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

13.1.5 Standard of Care.

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under these procedures or its regulatory requirements.

13.1.6 Order of Disclosure.

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of the LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

13.1.7 Remedies.

The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Section 13.1. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Section 13.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Section 13.1, but shall be in addition to all other remedies available at law or in equity. The Parties further

acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 13.1.

13.1.8 Disclosure to FERC, its Staff, or a State.
Notwithstanding anything in this Section 13.1 to the contrary, and pursuant to 18 CFR section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to the LGIP, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when its is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules and regulations.

13.1.9 Subject to the exception in Section 13.1.8, any information that a Party claims is competitively sensitive, commercial or financial information ("Confidential Information") shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIP or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

13.1.10 This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

13.1.11 Transmission Provider shall, at Interconnection Customer's election, destroy, in a confidential manner, or return the Confidential Information provided at the time of Confidential Information is no longer needed.

13.2 Delegation of Responsibility.

Transmission Provider may use the services of subcontractors as it deems appropriate to perform its obligations under this LGIP. Transmission Provider shall remain primarily liable to Interconnection Customer for the performance of such subcontractors and compliance with its obligations of this LGIP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

13.3 Obligation for Study Costs.

Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Studies. Any difference between the Initial Deposit submitted as per Section 3.3.1, less any part of that Deposit deemed non-refundable as per Section 3.3.1, and the actual cost of the Interconnection Study shall be paid by or refunded, except as otherwise provided herein, to Interconnection Customer. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study. Interconnection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice therefor. Transmission Provider shall not be obligated to perform or continue to perform any studies unless Interconnection Customer has paid all undisputed amounts in compliance herewith.

13.4 Third Parties Conducting Studies.

If (i) at the time of the signing of an Interconnection Study Agreement there is disagreement as to the estimated time to complete an Interconnection Study, (ii) Interconnection Customer receives notice pursuant to Sections 7.4 or 8.3 that Transmission Provider will not complete an Interconnection Study within the applicable timeframe for such Interconnection Study, or (iii) Interconnection Customer receives neither the Interconnection Study nor a notice under Sections 7.4 or 8.3 within the applicable timeframe for such Interconnection Study, then Interconnection Customer may require Transmission Provider to utilize a third party consultant reasonably acceptable to Interconnection Customer and Transmission Provider to perform such Interconnection Study under the direction of Transmission Provider. At other times, Transmission Provider may also utilize a third party consultant to perform such Interconnection Study, either in response to a general request of Interconnection Customer, or on its own volition.

In all cases, use of a third party consultant shall be in accord with Article 26 of the LGIA (Subcontractors) and limited to situations where Transmission Provider determines that doing so will help maintain or accelerate the study process for Interconnection Customer's pending Interconnection Request and not interfere with Transmission Provider's progress on Interconnection Studies for other pending Interconnection Requests. In cases where Interconnection Customer requests use of a third party consultant to perform such Interconnection Study, Interconnection Customer and Transmission Provider shall negotiate all of the pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. Transmission Provider shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the

Interconnection Request as soon as soon as practicable upon Interconnection Customer's request subject to the confidentiality provision in Section 13.1. In any case, such third party contract may be entered into with either Interconnection Customer or Transmission Provider at Transmission Provider's discretion. In the case of (iii) Interconnection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such third party study. Such third party consultant shall be required to comply with this LGIP, Article 26 of the LGIA (Subcontractors), and the relevant Tariff procedures and protocols as would apply if Transmission Provider were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and for no other purposes. Transmission Provider shall cooperate with such third party consultant and Interconnection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

13.5 Disputes.

13.5.1 Submission.

In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with the LGIA, the LGIP, or their performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

13.5.2 External Arbitration Procedures.

Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 13, the terms of this Section 13 shall prevail.

13.5.3 Arbitration Decisions.

Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the LGIA and LGIP and shall have no power to modify or change any provision of the LGIA and LGIP in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

13.5.4 Costs.

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

13.6 Local Furnishing Bonds.

13.6.1 Transmission Providers That Own Facilities Financed by Local Furnishing Bonds.

This provision is applicable only to a Transmission Provider that has financed facilities for the local furnishing of electric energy with tax-exempt bonds, as described in Section 142(f) of the Internal Revenue Code ("local furnishing bonds"). Notwithstanding any other provision of this LGIA and LGIP, Transmission Provider shall not be required to provide Interconnection Service to Interconnection Customer pursuant to this LGIA and LGIP if the provision of such Transmission Service would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance Transmission Provider's facilities that would be used in providing such Interconnection Service.

13.6.2 Alternative Procedures for Requesting Interconnection Service.

If Transmission Provider determines that the provision of Interconnection Service requested by Interconnection Customer would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance its facilities that would be used in providing such Interconnection Service, it shall advise the Interconnection Customer within thirty (30) Calendar Days of receipt of the Interconnection Request.

Interconnection Customer thereafter may renew its request for interconnection using the process specified in Article 5.2(ii) of the Transmission Provider's Tariff.

APPENDIX 1 to LGIP
INTERCONNECTION REQUEST FOR A
LARGE GENERATING FACILITY

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with Transmission Provider's Transmission System pursuant to a Tariff.

2. This Interconnection Request is for (check one):
   _____ A proposed new Large Generating Facility.
   _____ An increase in the generating capacity or a Material Modification of an existing Generating Facility.

3. The type of interconnection service requested (check one):
   _____ Energy Resource Interconnection Service
   _____ Network Resource Interconnection Service

4. _____ Check here only if Interconnection Customer requesting Network Resource Interconnection Service also seeks to have its Generating Facility studied for Energy Resource Interconnection Service

5. Interconnection Customer provides the following information:

   a. Address or location or the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;

   b. Maximum summer at ____ degrees C and winter at _____ degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;

   c. General description of the equipment configuration;

   d. Commercial Operation Date (Day, Month, and Year);

   e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;

   f. Approximate location of the proposed Point of Interconnection (optional); and

   g. Interconnection Customer Data (set forth in Attachment A)

6. Applicable Initial Deposit amount as specified in the LGIP.

7. Evidence of Site Control as specified in the LGIP (check one)
   ____ Is attached to this Interconnection Request
   ____ Is NOT attached to this Interconnection Request, but a Deposit in Lieu of Site Control is provided

8. This Interconnection Request shall be submitted to the representative indicated below:

[To be completed by Transmission Provider]

9. Representative of Interconnection Customer to contact:

[To be completed by Interconnection Customer]

10. This Interconnection Request is submitted by:

Name of Interconnection Customer: _____ By

(signature): _____ Name

(type or print): _____ Title:

_____ Date:

_____

Attachment A to Appendix 1
Interconnection Request

LARGE GENERATING FACILITY DATA

UNIT RATINGS

kVA _____ °F _____ Voltage _____
Power Factor _____
Speed (RPM) Connection (e.g. Wye) _____
Short Circuit Ratio _____ Frequency, Hertz _____
Stator Amperes at Rated kVA Field Volts _____
Max Turbine MW °F _____

COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA

Inertia Constant, H = _____ kW sec/kVA
Moment-of-Inertia, WR^2 = _____ lb. $ft.^2$

REACTANCE DATA (PER UNIT-RATED KVA)

		DIRECT AXIS		QUADRATURE AXIS	
Synchronous - saturated		X_{dv}	_____	X_{qv}	_____
Synchronous - unsaturated		X_{di}	_____	X_{qi}	_____
Transient - saturated	X'_{dv}	_____	X'_{qv}	_____	
Transient - unsaturated	X'_{di}	_____	X'_{qi}	_____	
Subtransient - saturated	X''_{dv}	_____	X''_{qv}	_____	
Subtransient - unsaturated		X''_{di}	_____	X''_{qi}	_____
Negative Sequence - saturated	$X2_v$	_____			
Negative Sequence - unsaturated Zero	$X2_i$	_____			
Sequence - saturated		$X0_v$	_____		
Zero Sequence - unsaturated	$X0_i$	_____			
Leakage Reactance		Xl_m			

FIELD TIME CONSTANT DATA (SEC)

Open Circuit		T'_{do} _____		T'_{qo}	_____
Three-Phase Short Circuit Transient	T'_{d3}	_____	T'_{q}	_____	
Line to Line Short Circuit Transient	T'_{d2}	_____			
Line to Neutral Short Circuit Transient	T'_{d1}				
Short Circuit Subtransient		T''_{d} _____		T''_{q}	_____
Open Circuit Subtransient		T''_{do}		T''_{qo}	_____

ARMATURE TIME CONSTANT DATA (SEC)

Three Phase Short Circuit	T_{a3}	_____
Line to Line Short Circuit	T_{a2}	_____
Line to Neutral Short Circuit	T_{a1}	_____

NOTE: If requested information is not applicable, indicate by marking "N/A."

MW CAPABILITY AND PLANT CONFIGURATION
LARGE GENERATING FACILITY DATA

ARMATURE WINDING RESISTANCE DATA (PER UNIT)

Positive	R_1	_____
Negative	R_2	_____
Zero	R_0	_____

Rotor Short Time Thermal Capacity $I_{22}t$ = _____ _____
Field Current at Rated kVA, Armature Voltage and PF = _____ amps
Field Current at Rated kVA and Armature Voltage, 0 PF = _____ amps
Three Phase Armature Winding Capacitance = _____ microfarad
Field Winding Resistance = _____ ohms _____°C _____
Armature Winding Resistance (Per Phase) = _____ ohms _____°C

CURVES

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves.
Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

GENERATOR STEP-UP TRANSFORMER DATA RATINGS

Capacity		Self-cooled/ Maximum Nameplate
_____	/	_____ kVA

Voltage Ratio(Generator Side/System side/Tertiary) _____
_____ / _____ / _____ kV

Winding Connections (Low V/High V/Tertiary V (Delta or Wye))
/_____/_____

Fixed Taps Available _____

Present Tap Setting _____

IMPEDANCE

Positive	Z_1 (on self-cooled kVA rating)	_____	_____	X/R
Zero	Z_0 (on self-cooled kVA rating)	_____	_____	X/R

EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request:
_____

Elevation: _____ _____ Single Phase _____ Three Phase

Inverter manufacturer, model name, number, and version:
_____

List of adjustable setpoints for the protective equipment or software:
_____

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

INDUCTION GENERATORS

(*) Field Volts: _____
(*) Field Amperes: _____
(*) Motoring Power (kW): _____
(*) Neutral Grounding Resistor (If Applicable): _____
(*) $I_{22}t$ or K (Heating Time Constant): _____
(*) Rotor Resistance: _____
(*) Stator Resistance: _____
(*) Stator Reactance: _____
(*) Rotor Reactance: _____
(*) Magnetizing Reactance: _____
(*) Short Circuit Reactance: _____
(*) Exciting Current: _____
(*) Temperature Rise: _____
(*) Frame Size: _____
(*) Design Letter: _____
(*) Reactive Power Required In Vars (No Load): _____
(*) Reactive Power Required In Vars (Full Load): _____
(*) Total Rotating Inertia, H: _____Per Unit on KVA Base

Note: Please consult Transmission Provider prior to submitting the Interconnection Request to determine if the information designated by (*) is required

APPENDIX 2 to LGIP
INTERCONNECTION FEASIBILITY STUDY AGREEMENT

THIS AGREEMENT is made and entered into this___day of _____, 20___ by and between_____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____ a _____existing under the laws of the State of _____, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____ ; and

WHEREAS, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System; and

WHEREAS, Interconnection Customer has requested Transmission Provider to perform an Interconnection Feasibility Study to assess the feasibility of interconnecting the proposed Large Generating Facility to the Transmission System, and of any Affected Systems;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.

2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed an Interconnection Feasibility Study consistent with Section 6.0 of this LGIP in accordance with the Tariff.

3.0 The scope of the Interconnection Feasibility Study shall be subject to the assumptions set forth in Attachment A to this Agreement.

4.0 The Interconnection Feasibility Study shall be based on the technical information provided by Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study and as designated in accordance with Section 3.3.4 of the LGIP. If, after the designation of the Point of Interconnection pursuant to Section 3.3.4 of the LGIP, Interconnection Customer modifies its Interconnection Request pursuant to Section 4.4, the time to complete the Interconnection Feasibility Study may be extended.

5.0 The Interconnection Feasibility Study report shall provide the following information:

- preliminary identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;

- preliminary identification of any thermal overload or voltage limit violations resulting from the interconnection; and

- preliminary description and non-bonding estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit and power flow issues.

6.0 Interconnection Customer shall provide a deposit of $10,000 for the performance of the Interconnection Feasibility Study.

Upon receipt of the Interconnection Feasibility Study Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Feasibility Study.

Any difference between the deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

7.0 Miscellaneous. The Interconnection Feasibility Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By: _____ By: _____

Title: _____ Title: _____

Date: _____ Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

Attachment A to Appendix 2
Interconnection Feasibility
Study Agreement

ASSUMPTIONS USED IN CONDUCTING THE INTERCONNECTION FEASIBILITY STUDY

The Interconnection Feasibility Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on _____:

Designation of Point of Interconnection and configuration to be studied.
Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Transmission Provider]

APPENDIX 2 to LGIP
INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT

THIS AGREEMENT is made and entered into this ___ day of , 20___ by and between , a organized and existing under the laws of the State of , ("Interconnection Customer,") and _____ a existing under the laws of the State of , ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____; and

WHEREAS, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System; and

WHEREAS, Interconnection Customer has requested Transmission Provider to perform an Interconnection System Impact Study to assess the impact of interconnecting the Large Generating Facility to the Transmission System, and of any Affected Systems;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.

2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed an Interconnection System Impact Study consistent with Section 7.0 of this LGIP in accordance with the Tariff.

3.0 The scope of the Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.

4.0 The Interconnection System Impact Study will be based upon the technical information provided by Interconnection Customer in the Interconnection Request, subject to any modifications in accordance with Section 4.4 of the LGIP. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Customer System Impact Study. If Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the Interconnection System Impact Study may be extended.

5.0 The Interconnection System Impact Study report shall provide the following information:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;

- identification of any thermal overload or voltage limit violations resulting from the interconnection;

- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection and

- description and non-binding, good faith estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit, instability, and power flow issues.

6.0 Transmission Provider's good faith estimate for the time of completion of the Interconnection System Impact Study is [insert date].

Upon receipt of the Interconnection System Impact Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection System Impact Study.

Any difference between the Initial Deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate, less any amounts deemed non-refundable as per Section 3.3.1 of this LGIP.

7.0 Miscellaneous. The Interconnection System Impact Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.]

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By: _____ By: _____

Title: _____ Title: _____

Date: _____ Date: _____

[Insert name of Interconnection Customer]

_____

By:

Title: _____

Date: _____

Attachment A To Appendix 2
Interconnection System Impact
Study Agreement

ASSUMPTIONS USED IN CONDUCTING THE INTERCONNECTION SYSTEM IMPACT STUDY

The Interconnection System Impact Study will be based upon the following assumptions:

Designation of Point of Interconnection and configuration to be studied.
Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Transmission Provider]

APPENDIX 3 to LGIP
INTERCONNECTION FACILITIES STUDY AGREEMENT

THIS AGREEMENT is made and entered into this____day of_____, 20___ by and between _____, a _____ organized and existing under the laws of the State of _____,("Interconnection Customer,") and _____ a_____existing under the laws of the State of_____, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated_____; and

WHEREAS, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System;

WHEREAS, Transmission Provider has completed an Interconnection System Impact Study (the "System Impact Study") and provided the results of said study to Interconnection Customer; and

WHEREAS, Interconnection Customer has requested Transmission Provider to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the Transmission System.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.

2.0 Interconnection Customer elects and Transmission Provider shall cause an Interconnection Facilities Study consistent with Section 8.0 of this LGIP to be performed in accordance with the Tariff.

3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A and the data provided in Attachment B to this Agreement.

4.0 The Interconnection Facilities Study report (i) shall provide a description, estimated cost of (consistent with Attachment A), schedule for required facilities to interconnect the Large Generating Facility to the Transmission System and (ii) shall address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.

5.0 The time for completion of the Interconnection Facilities Study is specified in Attachment A.

Transmission Provider shall invoice Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay invoiced amounts within thirty (30) Calendar Days of receipt of invoice. Transmission Provider shall continue to hold the amounts on deposit until settlement of the final invoice.

6.0 Miscellaneous. The Interconnection Facility Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

Attachment A To Appendix 3
Interconnection Facilities
Study Agreement

INTERCONNECTION CUSTOMER SCHEDULE ELECTION FOR CONDUCTING THE INTERCONNECTION FACILITIES STUDY

Transmission Provider shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to Interconnection Customer within ninety (90) Calendar days after receipt of an executed copy of this Interconnection Facilities Study Agreement.

Attachment B to Appendix 3
Interconnection Facilities
Study Agreement

DATA FORM TO BE PROVIDED BY INTERCONNECTION CUSTOMER WITH THE INTERCONNECTION FACILITIES STUDY AGREEMENT

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

One set of metering is required for each generation connection to the new ring bus or existing Transmission Provider station. Number of generation connections:

On the one line diagram indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one line diagram indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

Will an alternate source of auxiliary power be available during CT/PT maintenance?

_____Yes _____ No

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation?_____Yes _____No (Please indicate on one line diagram).

What type of control system or PLC will be located at Interconnection Customer's Large Generating Facility?

_____

What protocol does the control system or PLC use?

_____

Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.

Physical dimensions of the proposed interconnection station:

_____

Bus length from generation to interconnection station:

_____

Line length from interconnection station to Transmission Provider's transmission line.

_____

Tower number observed in the field. (Painted on tower leg)* _____

Number of third party easements required for transmission lines*:

_____

* To be completed in coordination with Transmission Provider.

Is the Large Generating Facility in the Transmission Provider's service area?

_____Yes ____No Local provider: _____

Please provide proposed schedule dates:

Begin Construction	Date: _____
Generator set-up transformer receives back feed power	Date: _____
Generation Testing	Date:_____
Commercial Operation	Date: _____

APPENDIX 4 to LGIP
Reserved for Future Use

APPENDIX 5 to LGIP
OPTIONAL INTERCONNECTION STUDY AGREEMENT

THIS AGREEMENT is made and entered into this ___ day of ___ , 20___ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____ a _____ existing under the laws of the State of _____, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____;

WHEREAS, Interconnection Customer is proposing to establish an interconnection with the Transmission System; and

WHEREAS, Interconnection Customer has submitted to Transmission Provider an Interconnection Request; and

WHEREAS, on or after the date when Interconnection Customer receives the Interconnection System Impact Study results, Interconnection Customer has further requested that Transmission Provider prepare an Optional Interconnection Study;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.

2.0 Interconnection Customer elects and Transmission Provider shall cause an Optional Interconnection Study consistent with Section 10.0 of this LGIP to be performed in accordance with the Tariff.

3.0 The scope of the Optional Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.

4.0 The Optional Interconnection Study shall be performed solely for informational purposes.

5.0 The Optional Interconnection Study report shall provide a sensitivity analysis based on the assumptions specified by Interconnection Customer in Attachment A to this Agreement. The Optional Interconnection Study will identify Transmission Provider's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide interconnection service based upon the assumptions specified by Interconnection Customer in Attachment A.

6.0 Interconnection Customer shall provide a deposit of $25,000 for the performance of the Optional Interconnection Study. Transmission Provider's good faith estimate for the time of completion of the Optional Interconnection Study is [insert date].

Upon receipt of the Optional Interconnection Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Optional Study.

Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

7.0 Miscellaneous. The Optional Interconnection Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By: _____ By:_____

Title: _____ Title:_____

Date: _____ Date:_____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

Appendix 6 to the Standard Large Generator Interconnection Procedures

STANDARD LARGE GENERATOR

INTERCONNECTION AGREEMENT (LGIA)

TABLE OF CONTENTS

STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT

THIS STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT ("Agreement") is made and entered into this ____ day of _____ 20__, by and between _____, a _____organized and existing under the laws of the State/Commonwealth of _____("Interconnection Customer" with a Large Generating Facility), and_____, a _____
organized and existing under the laws of the State/Commonwealth of _____ ("Transmission Provider and/or Transmission Owner"). Interconnection Customer and Transmission Provider each may be referred to as a "Party" or collectively as the "Parties."

Recitals

WHEREAS, Transmission Provider operates the Transmission System; and

WHEREAS, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Large Generating Facility in Appendix C to this Agreement; and,

WHEREAS, Interconnection Customer and Transmission Provider have agreed to enter into this Agreement for the purpose of interconnecting the Large Generating Facility with the Transmission System;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this Standard Large Generator Interconnection Agreement, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used or the Open Access Transmission Tariff (Tariff).

Article 1. Definitions

Adverse System Impact shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

Affected System shall mean an electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Affected System Operator shall mean the entity that operates an Affected System.

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

Ancillary Services shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Applicable Reliability Council shall mean the reliability council applicable to the Transmission System to which the Generating Facility is directly interconnected.

Applicable Reliability Standards shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Transmission System to which the Generating Facility is directly interconnected.

Base Case shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by the Transmission Provider or Interconnection Customer.

Breach shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

Breaching Party shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

Business Day shall mean Monday through Friday, excluding Federal Holidays.

Calendar Day shall mean any day including Saturday, Sunday or a Federal Holiday.

Clustering shall mean the process whereby a group of Interconnection Requests is studied together, instead of serially, for the purpose of conducting the Interconnection System Impact Study.

Commercial Operation shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

Commercial Operation Date of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

Confidential Information shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

Control Area shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by the Applicable Reliability Council.

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

Dispute Resolution shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

Distribution System shall mean the Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

Distribution Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Effective Date shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

Emergency Condition shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

Energy Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or nonfirm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

Engineering & Procurement (E&P) Agreement shall mean an agreement that authorizes the Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

Environmental Law shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

FERC shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Generating Facility shall mean Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Generating Facility Capacity shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing

authority or power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, or any Affiliate thereof.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

Initial Synchronization Date shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

In-Service Date shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Provider's Interconnection Facilities to obtain back feed power.

Interconnection Customer shall mean any entity, including the Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission Provider's Transmission System.

Interconnection Customer's Interconnection Facilities shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities shall mean the Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Interconnection Facilities Study shall mean a study conducted by the Transmission Provider or a third party consultant for the Interconnection Customer to determine a list of facilities (including Transmission Provider's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission Provider's Transmission System. The scope of the study is defined in Section 8 of the Standard Large Generator Interconnection Procedures.

Interconnection Facilities Study Agreement shall mean the form of agreement contained in Appendix 4 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

Interconnection Feasibility Study shall mean a preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Transmission Provider's Transmission System, the scope of which is described in Section 6 of the Standard Large Generator Interconnection Procedures.

Interconnection Feasibility Study Agreement shall mean the form of agreement contained in Appendix 2 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.

Interconnection Request shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Standard Large Generator Interconnection Procedures, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission Provider's Transmission System.

Interconnection Service shall mean the service provided by the Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Transmission Provider's Tariff.

Interconnection Study shall mean any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures.

Interconnection System Impact Study shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of Transmission Provider's Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts identified in the Interconnection Feasibility Study, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.

Interconnection System Impact Study Agreement shall mean the form of agreement contained in Appendix 3 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection System Impact Study.

IRS shall mean the Internal Revenue Service.

Joint Operating Committee shall be a group made up of representatives from Interconnection Customers and the Transmission Provider to coordinate operating and technical considerations of Interconnection Service.

Large Generating Facility shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

Loss shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or

non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.

Material Modification shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Metering Equipment shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

NERC shall mean the North American Electric Reliability Council or its successor organization.

Network Resource shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

Network Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Network Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the interconnection of the Large Generating Facility to the Transmission Provider's Transmission System.

Notice of Dispute shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

Optional Interconnection Study shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

Optional Interconnection Study Agreement shall mean the form of agreement contained in Appendix 5 of the Standard Large Generator Interconnection Procedures for conducting the Optional Interconnection Study.

Party or Parties shall mean Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Change of Ownership shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

Point of Interconnection shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider's Transmission System.

Queue Position shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the Transmission Provider.

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Scoping Meeting shall mean the meeting between representatives of the Interconnection Customer and Transmission Provider conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

Site Control shall mean documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose.

Small Generating Facility shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

Stand Alone Network Upgrades shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Transmission Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement.

Standard Large Generator Interconnection Agreement (LGIA) shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Transmission Provider's Tariff.

Standard Large Generator Interconnection Procedures (LGIP) shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Transmission Provider's Tariff.

System Protection Facilities shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission Provider's Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances

occurring on the Transmission Provider's Transmission System or on other delivery systems or other generating systems to which the Transmission Provider's Transmission System is directly connected.

Tariff shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

Transmission Owner shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

Transmission Provider shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission Provider's Interconnection Facilities shall mean all facilities and equipment owned, controlled or operated by the Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Transmission System shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff.

Trial Operation shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

Variable Energy Resource shall mean a device for the production of electricity that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator.

Article 2. Effective Date, Term, and Termination

2.1 Effective Date. This LGIA shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC. Transmission Provider shall promptly file this LGIA with FERC upon execution in accordance with Article 3.1, if required.

2.2 Term of Agreement. Subject to the provisions of Article 2.3, this LGIA shall remain in effect for a period of ten (10) years from the Effective Date or such other longer period as Interconnection Customer may request (Term to be specified in individual agreements) and shall be automatically renewed for each successive one-year period thereafter.

2.3 Termination Procedures.

2.3.1 Written Notice. This LGIA may be terminated by Interconnection Customer after giving Transmission Provider ninety (90) Calendar Days advance written notice, or by Transmission Provider notifying FERC after the Generating Facility permanently ceases Commercial Operation.

2.3.2 Default. Either Party may terminate this LGIA in accordance with Article 17.

2.3.3 Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this LGIA, which notice has been accepted for filing by FERC.

2.4 Termination Costs. If a Party elects to terminate this Agreement pursuant to Article 2.3 above, each Party shall pay all costs incurred (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) or charges assessed by the other Party, as of the date of the other Party's receipt of such notice of termination, that are the responsibility of the Terminating Party under this LGIA. In the event of termination by a Party, the Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this LGIA, unless otherwise ordered or approved by FERC:

2.4.1 With respect to any portion of Transmission Provider's Interconnection Facilities that have not yet been constructed or installed, Transmission Provider shall to the extent possible and with Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Interconnection Customer elects not to authorize such cancellation, Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and Transmission Provider shall deliver such material and equipment, and, if necessary, assign such contracts, to Interconnection Customer as soon as practicable, at Interconnection Customer's expense. To the extent that Interconnection Customer has already paid Transmission Provider for any or all such costs of materials or equipment not taken by Interconnection Customer, Transmission Provider shall promptly refund such amounts to Interconnection Customer, less any costs, including penalties incurred by Transmission Provider to cancel any pending orders of or return such materials, equipment, or contracts.

If an Interconnection Customer terminates this LGIA, it shall be responsible for all costs incurred in association with that Interconnection Customer's interconnection, including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment, and other expenses including any Network Upgrades for which Transmission Provider has incurred expenses and has not been reimbursed by Interconnection Customer.

2.4.2 Transmission Provider may, at its option, retain any portion of such materials, equipment, or facilities that Interconnection Customer chooses not to accept delivery of, in which case Transmission Provider shall be responsible for all costs associated with procuring such materials, equipment, or facilities.

2.4.3 With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this LGIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.

2.5 **Disconnection**. Upon termination of this LGIA, the Parties will take all appropriate steps to disconnect the Large Generating Facility from the Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this LGIA or such non-terminating Party otherwise is responsible for these costs under this LGIA.

2.6 **Survival**. This LGIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this LGIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this LGIA was in effect; and to permit each Party to have access to the lands of the other Party pursuant to this LGIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

Article 3. Regulatory Filings

3.1 **Filing**. Transmission Provider shall file this LGIA (and any amendment hereto) with the appropriate Governmental Authority, if required. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If Interconnection Customer has executed this LGIA, or any amendment thereto, Interconnection Customer shall reasonably cooperate with Transmission Provider with respect to such filing and to provide any information reasonably requested by Transmission Provider needed to comply with applicable regulatory requirements.

Article 4. Scope of Service

4.1 Interconnection Product Options. Interconnection Customer has selected the following (checked) type of Interconnection Service:

4.1.1 Energy Resource Interconnection Service.

4.1.1.1 The Product. Energy Resource Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Transmission System and be eligible to deliver the Large Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. To the extent Interconnection Customer wants to receive Energy Resource Interconnection Service, Transmission Provider shall construct facilities identified in Attachment A.

4.1.1.2 Transmission Delivery Service Implications. Under Energy Resource Interconnection Service, Interconnection Customer will be eligible to inject power from the Large Generating Facility into and deliver power across the interconnecting Transmission Provider's Transmission System on an "as available" basis up to the amount of MWs identified in the applicable stability and steady state studies to the extent the upgrades initially required to qualify for Energy Resource Interconnection Service have been constructed. Where eligible to do so (e.g., PJM, ISO-NE, NYISO), Interconnection Customer may place a bid to sell into the market up to the maximum identified Large Generating Facility output, subject to any conditions specified in the interconnection service approval, and the Large Generating Facility will be dispatched to the extent Interconnection Customer's bid clears. In all other instances, no transmission delivery service from the Large Generating Facility is assured, but Interconnection Customer may obtain Point-to-Point Transmission Service, Network Integration Transmission Service, or be used for secondary network transmission service, pursuant to Transmission Provider's Tariff, up to the maximum output identified in the stability and steady state studies. In those instances, in order for Interconnection Customer to obtain the right to deliver or inject energy beyond the Large Generating Facility Point of Interconnection or to improve its ability to do so, transmission delivery service must be obtained pursuant to the provisions of Transmission Provider's Tariff. The Interconnection Customer's ability to inject its Large Generating Facility output beyond the Point of Interconnection, therefore, will depend on the existing capacity of Transmission Provider's Transmission System at such time as a transmission service request is made that would accommodate such delivery. The provision of firm Point-to-Point Transmission Service or Network Integration Transmission Service may require the construction of additional Network Upgrades.

4.1.2 Network Resource Interconnection Service.

4.1.2.1 The Product. Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Large

Generating Facility (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market based congestion management, in the same manner as all Network Resources. To the extent Interconnection Customer wants to receive Network Resource Interconnection Service, Transmission Provider shall construct the facilities identified in Attachment A to this LGIA.

4.1.2.2 Transmission Delivery Service Implications. Network Resource Interconnection Service allows Interconnection Customer's Large Generating Facility to be designated by any Network Customer under the Tariff on Transmission Provider's Transmission System as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur. Although Network Resource Interconnection Service does not convey a reservation of transmission service, any Network Customer under the Tariff can utilize its network service under the Tariff to obtain delivery of energy from the interconnected Interconnection Customer's Large Generating Facility in the same manner as it accesses Network Resources. A Large Generating Facility receiving Network Resource Interconnection Service may also be used to provide Ancillary Services after technical studies and/or periodic analyses are performed with respect to the Large Generating Facility's ability to provide any applicable Ancillary Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Network Resource. However, if an Interconnection Customer's Large Generating Facility has not been designated as a Network Resource by any load, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all generating facilities that are similarly situated. The provision of Network Integration Transmission Service or firm Point-to-Point Transmission Service may require additional studies and the construction of additional upgrades. Because such studies and upgrades would be associated with a request for delivery service under the Tariff, cost responsibility for the studies and upgrades would be in accordance with FERC's policy for pricing transmission delivery services.

Network Resource Interconnection Service does not necessarily provide Interconnection Customer with the capability to physically deliver the output of its Large Generating Facility to any particular load on Transmission Provider's Transmission System without incurring congestion costs. In the event of transmission constraints on Transmission Provider's Transmission System, Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures in Transmission Provider's Transmission System in the same manner as Network Resources.

There is no requirement either at the time of study or interconnection, or at any point in the future, that Interconnection Customer's Large

Generating Facility be designated as a Network Resource by a Network Service Customer under the Tariff or that Interconnection Customer identify a specific buyer (or sink). To the extent a Network Customer does designate the Large Generating Facility as a Network Resource, it must do so pursuant to Transmission Provider's Tariff.

Once an Interconnection Customer satisfies the requirements for obtaining Network Resource Interconnection Service, any future transmission service request for delivery from the Large Generating Facility within Transmission Provider's Transmission System of any amount of capacity and/or energy, up to the amount initially studied, will not require that any additional studies be performed or that any further upgrades associated with such Large Generating Facility be undertaken, regardless of whether or not such Large Generating Facility is ever designated by a Network Customer as a Network Resource and regardless of changes in ownership of the Large Generating Facility. However, the reduction or elimination of congestion or redispatch costs may require additional studies and the construction of additional upgrades.

To the extent Interconnection Customer enters into an arrangement for long term transmission service for deliveries from the Large Generating Facility outside Transmission Provider's Transmission System, such request may require additional studies and upgrades in order for Transmission Provider to grant such request.

4.2 **Provision of Service**. Transmission Provider shall provide Interconnection Service for the Large Generating Facility at the Point of Interconnection.

4.3 **Performance Standards**. Each Party shall perform all of its obligations under this LGIA in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith. If such Party is a Transmission Provider or Transmission Owner, then that Party shall amend the LGIA and submit the amendment to FERC for approval.

4.4 **No Transmission Delivery Service**. The execution of this LGIA does not constitute a request for, nor the provision of, any transmission delivery service under Transmission Provider's Tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

4.5 **Interconnection Customer Provided Services**. The services provided by Interconnection Customer under this LGIA are set forth in Article 9.6 and Article 13.5.1. Interconnection Customer shall be paid for such services in accordance with Article 11.6.

Article 5. Interconnection Facilities Engineering, Procurement, and Construction

5.1 Options. Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall select the In-Service Date, Initial Synchronization Date, and Commercial Operation Date; and either Standard Option or Alternate Option set forth below for completion of Transmission Provider's Interconnection Facilities and Network Upgrades as set forth in Appendix A, Interconnection Facilities and Network Upgrades, and such dates and selected option shall be set forth in Appendix B, Milestones.

5.1.1 Standard Option. Transmission Provider shall design, procure, and construct Transmission Provider's Interconnection Facilities and Network Upgrades, using Reasonable Efforts to complete Transmission Provider's Interconnection Facilities and Network Upgrades by the dates set forth in Appendix B, Milestones. Transmission Provider shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event Transmission Provider reasonably expects that it will not be able to complete Transmission Provider's Interconnection Facilities and Network Upgrades by the specified dates, Transmission Provider shall promptly provide written notice to Interconnection Customer and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

5.1.2 Alternate Option. If the dates designated by Interconnection Customer are acceptable to Transmission Provider, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities by the designated dates.

If Transmission Provider subsequently fails to complete Transmission Provider's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B, Milestones; Transmission Provider shall pay Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Interconnection Customer shall be extended day for day for each day that the applicable RTO or ISO refuses to grant clearances to install equipment.

5.1.3 Option to Build. If the dates designated by Interconnection Customer are not acceptable to Transmission Provider, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days, and unless the Parties agree otherwise, Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in Article 5.1.2. Transmission Provider and Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A. Except for Stand Alone Network Upgrades, Interconnection Customer shall have no right to construct Network Upgrades under this option.

5.1.4 Negotiated Option. If Interconnection Customer elects not to exercise its option under Article 5.1.3, Option to Build, Interconnection Customer shall so notify Transmission Provider within thirty (30) Calendar Days, and the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives or the procurement and construction of a portion of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades by Interconnection Customer) pursuant to which Transmission Provider is responsible for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Network Upgrades. If the Parties are unable to reach agreement on such terms and conditions, Transmission Provider shall assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Network Upgrades pursuant to 5.1.1, Standard Option.

5.2 General Conditions Applicable to Option to Build. If Interconnection Customer assumes responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades,

(1) Interconnection Customer shall engineer, procure equipment, and construct Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by Transmission Provider;

(2) Interconnection Customer's engineering, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law and Applicable Reliability Standards to which Transmission Provider would be subject in the engineering, procurement or construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;

(3) Transmission Provider shall review and approve the engineering design, equipment acceptance tests, and the construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;

(4) prior to commencement of construction, Interconnection Customer shall provide to Transmission Provider a schedule for construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from Transmission Provider;

(5) at any time during construction, Transmission Provider shall have the right to gain unrestricted access to Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;

(6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by Transmission Provider, Interconnection Customer shall be obligated to remedy deficiencies in that portion of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;

(7) Interconnection Customer shall indemnify Transmission Provider for claims arising from Interconnection Customer's construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 Indemnity;

(8) Interconnection Customer shall transfer control of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades to Transmission Provider;

(9) Unless Parties otherwise agree, Interconnection Customer shall transfer ownership of Transmission Provider's Interconnection Facilities and Stand-Alone Network Upgrades to Transmission Provider;

(10) Transmission Provider shall approve and accept for operation and maintenance Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and

(11) Interconnection Customer shall deliver to Transmission Provider "as-built" drawings, information, and any other documents that are reasonably required by Transmission Provider to assure that the Interconnection Facilities and Stand-Alone Network Upgrades are built to the standards and specifications required by Transmission Provider.

5.3 Liquidated Damages. The actual damages to Interconnection Customer, in the event Transmission Provider's Interconnection Facilities or Network Upgrades are not completed by the dates designated by Interconnection Customer and accepted by Transmission Provider pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by Transmission Provider to Interconnection Customer in the event that Transmission Provider does not complete any portion of Transmission Provider's Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to ½ of 1 percent per day of the actual cost of Transmission Provider's Interconnection Facilities and Network Upgrades, in the aggregate, for which Transmission Provider has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of Transmission Provider's Interconnection Facilities and Network Upgrades for which Transmission Provider has assumed responsibility to design, procure, and construct. The foregoing payments will be made by Transmission Provider to Interconnection Customer as just compensation for the damages caused to Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this LGIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Transmission Provider's failure to meet its schedule.

No liquidated damages shall be paid to Interconnection Customer if: (1) Interconnection Customer is not ready to commence use of Transmission Provider's Interconnection Facilities or Network Upgrades to take the delivery of power for the Large Generating Facility's Trial Operation or to export power from the Large Generating Facility on the specified dates,

unless Interconnection Customer would have been able to commence use of Transmission Provider's Interconnection Facilities or Network Upgrades to take the delivery of power for Large Generating Facility's Trial Operation or to export power from the Large Generating Facility, but for Transmission Provider's delay; (2) Transmission Provider's failure to meet the specified dates is the result of the action or inaction of Interconnection Customer or any other Interconnection Customer who has entered into an LGIA with Transmission Provider or any cause beyond Transmission Provider's reasonable control or reasonable ability to cure; (3) the Interconnection Customer has assumed responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

5.4 Power System Stabilizers. The Interconnection Customer shall procure, install, maintain and operate Power System Stabilizers in accordance with the guidelines and procedures established by the Applicable Reliability Council. Transmission Provider reserves the right to reasonably establish minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If the Large Generating Facility's Power System Stabilizers are removed from service or not capable of automatic operation, Interconnection Customer shall immediately notify Transmission Provider's system operator, or its designated representative. The requirements of this paragraph shall not apply to wind generators.

5.5 Equipment Procurement. If responsibility for construction of Transmission Provider's Interconnection Facilities or Network Upgrades is to be borne by Transmission Provider, then Transmission Provider shall commence design of Transmission Provider's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:

5.5.1 Transmission Provider has completed the Facilities Study pursuant to the Facilities Study Agreement;

5.5.2 Transmission Provider has received written authorization to proceed with design and procurement from Interconnection Customer by the date specified in Appendix B, Milestones; and

5.5.3 Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.

5.6 Construction Commencement. Transmission Provider shall commence construction of Transmission Provider's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

5.6.1 Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

5.6.2 Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of Transmission Provider's Interconnection Facilities and Network Upgrades;

5.6.3 Transmission Provider has received written authorization to proceed with construction from Interconnection Customer by the date specified in Appendix B, Milestones; and

5.6.4 Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.

5.7 Work Progress. The Parties will keep each other advised periodically as to the progress of their respective design, procurement and construction efforts. Either Party may, at any time, request a progress report from the other Party. If, at any time, Interconnection Customer determines that the completion of Transmission Provider's Interconnection Facilities will not be required until after the specified In-Service Date, Interconnection Customer will provide written notice to Transmission Provider of such later date upon which the completion of Transmission Provider's Interconnection Facilities will be required.

5.8 Information Exchange. As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Parties' Interconnection Facilities and compatibility of the Interconnection Facilities with Transmission Provider's Transmission System, and shall work diligently and in good faith to make any necessary design changes.

5.9 Limited Operation. If any of Transmission Provider's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Large Generating Facility, Transmission Provider shall, upon the request and at the expense of Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Large Generating Facility and Interconnection Customer's Interconnection Facilities may operate prior to the completion of Transmission Provider's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this LGIA. Transmission Provider shall permit Interconnection Customer to operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

5.10 Interconnection Customer's Interconnection Facilities ('ICIF'). Interconnection Customer shall, at its expense, design, procure, construct, own and install the ICIF, as set forth in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

5.10.1 Interconnection Customer's Interconnection Facility Specifications. Interconnection Customer shall submit initial specifications for the ICIF, including System Protection Facilities, to Transmission Provider at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. Transmission Provider shall review such specifications to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Provider and comment on such specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

5.10.2 Transmission Provider's Review. Transmission Provider's review of Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the ICIF. Interconnection Customer shall make such changes to the ICIF as may reasonably be required by Transmission

Provider, in accordance with Good Utility Practice, to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Provider.

5.10.3 ICIF Construction. The ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Interconnection Customer shall deliver to Transmission Provider "as-built" drawings, information and documents for the ICIF, such as: a one-line diagram, a site plan showing the Large Generating Facility and the ICIF, plan and elevation drawings showing the layout of the ICIF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with Interconnection Customer's step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the ICIF, and the impedances (determined by factory tests) for the associated step-up transformers and the Large Generating Facility. The Interconnection Customer shall provide Transmission Provider specifications for the excitation system, automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable.

5.11 Transmission Provider's Interconnection Facilities Construction. Transmission Provider's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Transmission Provider shall deliver to Interconnection Customer the following "as-built" drawings, information and documents for Transmission Provider's Interconnection Facilities [include appropriate drawings and relay diagrams].

Transmission Provider will obtain control of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities.

5.12 Access Rights. Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party ("Granting Party") shall furnish at no cost to the other Party ("Access Party") any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the Transmission System; (ii) operate and maintain the Large Generating Facility, the Interconnection Facilities and the Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this LGIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.

5.13 Lands of Other Property Owners. If any part of Transmission Provider or Transmission Owner's Interconnection Facilities and/or Network Upgrades is to be installed on property owned by persons other than Interconnection Customer or Transmission Provider or Transmission Owner, Transmission Provider or Transmission Owner shall at Interconnection Customer's expense use efforts, similar in nature and extent to those that it typically

undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove Transmission Provider or Transmission Owner's Interconnection Facilities and/or Network Upgrades upon such property.

5.14 Permits. Transmission Provider or Transmission Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses, and authorizations that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Transmission Provider or Transmission Owner shall provide permitting assistance to Interconnection Customer comparable to that provided to Transmission Provider's own, or an Affiliate's generation.

5.15 Early Construction of Base Case Facilities. Interconnection Customer may request Transmission Provider to construct, and Transmission Provider shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Transmission System which are included in the Base Case of the Facilities Study for Interconnection Customer, and which also are required to be constructed for another Interconnection Customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date.

5.16 Suspension. Interconnection Customer reserves the right, upon written notice to Transmission Provider, to suspend at any time all work by Transmission Provider associated with the construction and installation of Transmission Provider's Interconnection Facilities and/or Network Upgrades required under this LGIA with the condition that Transmission System shall be left in a safe and reliable condition in accordance with Good Utility Practice and Transmission Provider's safety and reliability criteria. In such event, Interconnection Customer shall be responsible for all reasonable and necessary costs which Transmission Provider (i) has incurred pursuant to this LGIA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Transmission Provider cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, Transmission Provider shall obtain Interconnection Customer's authorization to do so.

Transmission Provider shall invoice Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Interconnection Customer suspends work by Transmission Provider required under this LGIA pursuant to this Article 5.16, and has not requested Transmission Provider to recommence the work required under this LGIA on or before the expiration of three (3) years following commencement of such suspension, this LGIA shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Transmission Provider, if no effective date is specified.

5.17 Taxes.

5.17.1 Interconnection Customer Payments Not Taxable. The Parties intend that all payments or property transfers made by Interconnection Customer to Transmission

Provider for the installation of Transmission Provider's Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

5.17.2 Representations and Covenants. In accordance with IRS Notice 2016-36, Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Large Generating Facility will pass to another party prior to the transmission of the electricity on the Transmission System (i.e. at the busbar on the Interconnection Customer's end of the intertie), (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to Transmission Provider for Transmission Provider's Interconnection Facilities will be capitalized by Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of Transmission Provider's Interconnection Facilities that is a "dual-use intertie," within the meaning of IRS Notice2016-36, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Large Generating Facility. For this purpose, "de minimis amount" means no more than 5 percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice2016-36. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Transmission Provider's request, Interconnection Customer shall provide Transmission Provider with a report from an independent engineer confirming its representation in clause (iii), above. Transmission Provider represents and covenants that the cost of Transmission Provider's Interconnection Facilities paid for by Interconnection Customer will have no net effect on the base upon which rates are determined.

5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon the Transmission Provider. Notwithstanding Article 5.17.1, Interconnection Customer shall protect, indemnify and hold harmless Transmission Provider from the cost consequences of any current tax liability imposed against Transmission Provider as the result of payments or property transfers made by Interconnection Customer to Transmission Provider under this LGIA for Interconnection Facilities, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Transmission Provider.

Transmission Provider shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges Interconnection Customer under this LGIA unless (i) Transmission Provider has determined, in good faith, that the payments or property transfers made by Interconnection Customer to Transmission Provider should be reported as income subject to taxation or (ii) any Governmental Authority directs Transmission Provider to report payments or property as income subject to taxation; provided, however, that Transmission Provider may require Interconnection Customer to provide security for Interconnection Facilities, in a form reasonably acceptable to Transmission Provider (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17. Interconnection Customer shall reimburse Transmission Provider for such costs on a fully grossed-up basis, in accordance with

Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Transmission Provider of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten year testing period and the applicable statute of limitation, as it may be extended by Transmission Provider upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

5.17.4 Tax Gross-Up Amount. Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that Interconnection Customer will pay Transmission Provider, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount equal to (1) the current taxes imposed on Transmission Provider ("Current Taxes") on the excess of (a) the gross income realized by Transmission Provider as a result of payments or property transfers made by Interconnection Customer to Transmission Provider under this LGIA (without regard to any payments under this Article 5.17) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit Transmission Provider to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on Transmission Provider's composite federal and state tax rates at the time the payments or property transfers are received and Transmission Provider will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting Transmission Provider's anticipated tax depreciation deductions as a result of such payments or property transfers by Transmission Provider's current weighted average cost of capital. Thus, the formula for calculating Interconnection Customer's liability to Transmission Owner pursuant to this Article 5.17.4 can be expressed as follows: (Current Tax Rate x (Gross Income Amount – Present Value of Tax Depreciation))/(1-Current Tax Rate). Interconnection Customer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

5.17.5 Private Letter Ruling or Change or Clarification of Law. At Interconnection Customer's request and expense, Transmission Provider shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Interconnection Customer to Transmission Provider under this LGIA are subject to federal income taxation. Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Interconnection Customer's knowledge. Transmission Provider and Interconnection Customer shall cooperate in good faith with respect to the submission of such request.

Transmission Provider shall keep Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. Transmission Provider shall allow Interconnection Customer to attend all meetings with IRS officials about the request and shall permit Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

5.17.6 Subsequent Taxable Events. If, within 10 years from the date on which the relevant Transmission Provider's Interconnection Facilities are placed in service, (i) Interconnection Customer Breaches the covenants contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice2016-36, or (iii) this LGIA terminates and Transmission Provider retains ownership of the Interconnection Facilities and Network Upgrades, Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Transmission Provider, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 2016-36.

5.17.7 Contests. In the event any Governmental Authority determines that Transmission Provider's receipt of payments or property constitutes income that is subject to taxation, Transmission Provider shall notify Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by Interconnection Customer and at Interconnection Customer's sole expense, Transmission Provider may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Interconnection Customer's written request and sole expense, Transmission Provider may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Transmission Provider reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but Transmission Provider shall keep Interconnection Customer informed, shall consider in good faith suggestions from Interconnection Customer about the conduct of the contest, and shall reasonably permit Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Transmission Provider may agree to a settlement either with Interconnection Customer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by Transmission Provider, but reasonably acceptable to Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally-recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Interconnection Customer's consent or such written advice will

relieve Interconnection Customer from any obligation to indemnify Transmission Provider for the tax at issue in the contest.

5.17.8 Refund. In the event that (a) a private letter ruling is issued to Transmission Provider which holds that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Provider under the terms of this LGIA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to Transmission Provider in good faith that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Provider under the terms of this LGIA is not taxable to Transmission Provider, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Interconnection Customer to Transmission Provider are not subject to federal income tax, or (d) if Transmission Provider receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by Interconnection Customer to Transmission Provider pursuant to this LGIA, Transmission Provider shall promptly refund to Interconnection Customer the following:

(i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,

(ii) interest on any amount paid by Interconnection Customer to Transmission Provider for such taxes which Transmission Provider did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR §35.19a(a)(2)(iii) from the date payment was made by Interconnection Customer to the date Transmission Provider refunds such payment to Interconnection Customer, and

(iii) with respect to any such taxes paid by Transmission Provider, any refund or credit Transmission Provider receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to Transmission Provider for such overpayment of taxes (including any reduction in interest otherwise payable by Transmission Provider to any Governmental Authority resulting from an offset or credit); provided, however, that Transmission Provider will remit such amount promptly to Interconnection Customer only after and to the extent that Transmission Provider has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to Transmission Provider's Interconnection Facilities.

The intent of this provision is to leave the Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

5.17.9 Taxes Other Than Income Taxes. Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, Transmission Provider may appeal, protest, seek abatement of, or otherwise contest any tax (other than

federal or state income tax) asserted or assessed against Transmission Provider for which Interconnection Customer may be required to reimburse Transmission Provider under the terms of this LGIA. Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and Transmission Provider shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to Transmission Provider for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Transmission Provider.

5.17.10 Transmission Owners Who Are Not Transmission Providers. If Transmission Provider is not the same entity as the Transmission Owner, then (i) all references in this Article 5.17 to Transmission Provider shall be deemed also to refer to and to include the Transmission Owner, as appropriate, and (ii) this LGIA shall not become effective until such Transmission Owner shall have agreed in writing to assume all of the duties and obligations of Transmission Provider under this Article 5.17 of this LGIA.

5.18 Tax Status. Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this LGIA is intended to adversely affect any Transmission Provider's tax exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

5.19 Modification.

5.19.1 General. Either Party may undertake modifications to its facilities. If a Party plans to undertake a modification that reasonably may be expected to affect the other Party's facilities, that Party shall provide to the other Party sufficient information regarding such modification so that the other Party may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Large Generating Facility modifications that do not require Interconnection Customer to submit an Interconnection Request, Transmission Provider shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the Transmission System, Transmission Provider's Interconnection Facilities or Network Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof.

5.19.2 Standards. Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this LGIA, Applicable Reliability Standards, and Good Utility Practice.

5.19.3 Modification Costs. Interconnection Customer shall not be directly assigned for the costs of any additions, modifications, or replacements that Transmission Provider makes to Transmission Provider's Interconnection Facilities or the Transmission System to facilitate the interconnection of a third party to Transmission Provider's Interconnection Facilities or the Transmission System, or to provide transmission service to a third party under Transmission Provider's Tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

Article 6. Testing and Inspection

6.1 Pre-Commercial Operation Date Testing and Modifications. Prior to the Commercial Operation Date, Transmission Provider shall test Transmission Provider's Interconnection Facilities and Network Upgrades and Interconnection Customer shall test the Large Generating Facility and Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. Interconnection Customer shall bear the cost of all such testing and modifications. Interconnection Customer shall generate test energy at the Large Generating Facility only if it has arranged for the delivery of such test energy.

6.2 Post-Commercial Operation Date Testing and Modifications. Each Party shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Large Generating Facility with the Transmission System in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.

6.3 Right to Observe Testing. Each Party shall notify the other Party in advance of its performance of tests of its Interconnection Facilities. The other Party has the right, at its own expense, to observe such testing.

6.4 Right to Inspect. Each Party shall have the right, but shall have no obligation to: (i) observe the other Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of the other Party's System Protection Facilities and other protective equipment; and (iii) review the other Party's maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be deemed to be Confidential Information and treated pursuant to Article 22 of this LGIA.

Article 7. Metering

7.1 **General.** Each Party shall comply with the Applicable Reliability Council requirements. Unless otherwise agreed by the Parties, Transmission Provider shall install Metering Equipment at the Point of Interconnection prior to any operation of the Large Generating Facility and shall own, operate, test and maintain such Metering Equipment. Power flows to and from the Large Generating Facility shall be measured at or, at Transmission Provider's option, compensated to, the Point of Interconnection. Transmission Provider shall provide metering quantities, in analog and/or digital form, to Interconnection Customer upon request. Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.

7.2 **Check Meters**. Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check Transmission Provider's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this LGIA, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Transmission Provider or its designee. The installation, operation and maintenance thereof shall be performed entirely by Interconnection Customer in accordance with Good Utility Practice.

7.3 **Standards**. Transmission Provider shall install, calibrate, and test revenue quality Metering Equipment in accordance with applicable ANSI standards.

7.4 **Testing of Metering Equipment**. Transmission Provider shall inspect and test all Transmission Provider-owned Metering Equipment upon installation and at least once every two (2) years thereafter. If requested to do so by Interconnection Customer, Transmission Provider shall, at Interconnection Customer's expense, inspect or test Metering Equipment more frequently than every two (2) years. Transmission Provider shall give reasonable notice of the time when any inspection or test shall take place, and Interconnection Customer may have representatives present at the test or inspection. If at any time Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Interconnection Customer's expense, in order to provide accurate metering, unless the inaccuracy or defect is due to Transmission Provider's failure to maintain, then Transmission Provider shall pay. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than two percent from the measurement made by the standard meter used in the test, Transmission Provider shall adjust the measurements by correcting all measurements for the period during which Metering Equipment was in error by using Interconnection Customer's check meters, if installed. If no such check meters are installed or if the period cannot be reasonably ascertained, the adjustment shall be for the period immediately preceding the test of the Metering Equipment equal to one-half the time from the date of the last previous test of the Metering Equipment.

7.5 **Metering Data**. At Interconnection Customer's expense, the metered data shall be telemetered to one or more locations designated by Transmission Provider and one or more locations designated by Interconnection Customer. Such telemetered data shall be used, under normal operating conditions, as the official measurement of the amount of energy delivered from the Large Generating Facility to the Point of Interconnection.

Article 8. Communications

8.1 **Interconnection Customer Obligations**. Interconnection Customer shall maintain satisfactory operating communications with Transmission Provider's Transmission System dispatcher or representative designated by Transmission Provider. Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Large Generating Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. Interconnection Customer shall also provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to Transmission Provider as set forth in Appendix D, Security Arrangements Details. The data circuit(s) shall extend from the Large Generating Facility to the location(s) specified by Transmission Provider. Any required maintenance of such communications equipment shall be performed by Interconnection Customer. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data.

8.2 **Remote Terminal Unit**. Prior to the Initial Synchronization Date of the Large Generating Facility, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Interconnection Customer, or by Transmission Provider at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Transmission Provider through use of a dedicated point-to-point data circuit(s) as indicated in Article 8.1. The communication protocol for the data circuit(s) shall be specified by Transmission Provider. Instantaneous bi-directional analog real power and reactive power flow information must be telemetered directly to the location(s) specified by Transmission Provider.

Each Party will promptly advise the other Party if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

8.3 **No Annexation.** Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

8.4 **Provision of Data from a Variable Energy Resource.** The Interconnection Customer whose Generating Facility is a Variable Energy Resource shall provide meteorological and forced outage data to the Transmission Provider to the extent necessary for the Transmission Provider’s development and deployment of power production forecasts for that class of Variable Energy Resources. The Interconnection Customer with a Variable Energy Resource having wind as the energy source, at a minimum, will be required to provide the Transmission Provider with site-specific meteorological data including: temperature, wind speed, wind direction, and atmospheric pressure. The Interconnection Customer with a Variable Energy Resource having solar as the energy source, at a minimum, will be required to provide the Transmission Provider with site-specific meteorological data including: temperature, atmospheric pressure, and irradiance. The

Transmission Provider and Interconnection Customer whose Generating Facility is a Variable Energy Resource shall mutually agree to any additional meteorological data that are required for the development and deployment of a power production forecast. The Interconnection Customer whose Generating Facility is a Variable Energy Resource also shall submit data to the Transmission Provider regarding all forced outages to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources. The exact specifications of the meteorological and forced outage data to be provided by the Interconnection Customer to the Transmission Provider, including the frequency and timing of data submittals, shall be made taking into account the size and configuration of the Variable Energy Resource, its characteristics, location, and its importance in maintaining generation resource adequacy and transmission system reliability in its area. All requirements for meteorological and forced outage data must be commensurate with the power production forecasting employed by the Transmission Provider. Such requirements for meteorological and forced outage data are set forth in Appendix C, Interconnection Details, of this LGIA, as they may change from time to time.

Article 9. Operations

9.1 General. Each Party shall comply with the Applicable Reliability Council requirements. Each Party shall provide to the other Party all information that may reasonably be required by the other Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.

9.2 Control Area Notification. At least three months before Initial Synchronization Date, Interconnection Customer shall notify Transmission Provider in writing of the Control Area in which the Large Generating Facility will be located. If Interconnection Customer elects to locate the Large Generating Facility in a Control Area other than the Control Area in which the Large Generating Facility is physically located, and if permitted to do so by the relevant transmission tariffs, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this LGIA, and remote Control Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Large Generating Facility in the other Control Area.

9.3 Transmission Provider Obligations. Transmission Provider shall cause the Transmission System and Transmission Provider's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA. Transmission Provider may provide operating instructions to Interconnection Customer consistent with this LGIA and Transmission Provider's operating protocols and procedures as they may change from time to time. Transmission Provider will consider changes to its operating protocols and procedures proposed by Interconnection Customer.

9.4 Interconnection Customer Obligations. Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA. Interconnection Customer shall operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with all applicable requirements of the Control Area of which it is part, as such requirements are set forth in Appendix C, Interconnection Details, of this LGIA. Appendix C, Interconnection Details, will be modified to reflect changes to the requirements as they may change from time to time. Either Party may request that the other Party provide copies of the requirements set forth in Appendix C, Interconnection Details, of this LGIA.

9.5 Start-Up and Synchronization. Consistent with the Parties' mutually acceptable procedures, Interconnection Customer is responsible for the proper synchronization of the Large Generating Facility to Transmission Provider's Transmission System.

9.6 Reactive Power.

9.6.1 Power Factor Design Criteria.

9.6.1.1 Synchronous Generation. Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all synchronous generators in the Control Area on a comparable basis.

9.6.1.2 Non-Synchronous Generation. Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established a different power factor range that applies to all non-synchronous generators in the Control Area on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet executed a Facilities Study Agreement as of the effective date of the Final Rule establishing this requirement (Order No. 827).

9.6.2 Voltage Schedules. Once Interconnection Customer has synchronized the Large Generating Facility with the Transmission System, Transmission Provider shall require Interconnection Customer to operate the Large Generating Facility to produce or absorb reactive power within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). Transmission Provider's voltage schedules shall treat all sources of reactive power in the Control Area in an equitable and not unduly discriminatory manner. Transmission Provider shall exercise Reasonable Efforts to provide Interconnection Customer with such schedules at least one (1) day in advance, and may make changes to such schedules as necessary to maintain the reliability of the Transmission System. Interconnection Customer shall operate the Large Generating Facility to maintain the specified output voltage or power factor at the Point of Interconnection within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). If Interconnection Customer is unable to maintain the specified voltage or power factor, it shall promptly notify the System Operator.

9.6.2.1 Governors and Regulators. Whenever the Large Generating Facility is operated in parallel with the Transmission System and the speed governors (if installed on the generating unit pursuant to Good Utility Practice) and voltage regulators are capable of operation, Interconnection Customer shall operate the Large Generating Facility with its speed governors and voltage regulators in automatic operation. If the Large Generating Facility's speed governors and voltage regulators are not capable of such automatic operation, Interconnection Customer shall immediately notify Transmission Provider's system operator, or its designated representative, and ensure that such Large Generating Facility's reactive power production or absorption (measured in MVARs) are within the design capability of the Large Generating Facility's generating unit(s) and steady state stability limits. Interconnection Customer shall not cause its Large Generating Facility to disconnect automatically or instantaneously from the Transmission System or trip any generating unit comprising the Large Generating Facility for an under or over frequency condition unless the abnormal frequency condition persists for a time period beyond the limits set forth in ANSI/IEEE Standard C37.106, or such other standard as applied to other generators in the Control Area on a comparable basis.

9.6.3 Payment for Reactive Power. Transmission Provider is required to pay Interconnection Customer for reactive power that Interconnection Customer provides or absorbs from the Large Generating Facility when Transmission Provider requests Interconnection Customer to operate its Large Generating Facility outside the range specified in Article 9.6.1, provided that if Transmission Provider pays its own or affiliated generators for reactive power service within the specified range, it must also pay Interconnection Customer. Payments shall be pursuant to Article 11.6 or such other agreement to which the Parties have otherwise agreed.

9.7 Outages and Interruptions.

9.7.1 Outages.

9.7.1.1 Outage Authority and Coordination. Each Party may in accordance with Good Utility Practice in coordination with the other Party remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact the other Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency Condition, the Party scheduling a removal of such facility(ies) from service will use Reasonable Efforts to schedule such removal on a date and time mutually acceptable to the Parties. In all circumstances, any Party planning to remove such facility(ies) from service shall use Reasonable Efforts to minimize the effect on the other Party of such removal.

9.7.1.2 Outage Schedules. Transmission Provider shall post scheduled outages of its transmission facilities on the OASIS. Interconnection Customer shall submit its planned maintenance schedules for the Large Generating Facility to Transmission Provider for a minimum of a rolling twenty-four month period. Interconnection Customer shall update its planned maintenance schedules as necessary. Transmission Provider may request Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the Transmission System; provided, however, adequacy of generation supply shall not be a criterion in determining Transmission System reliability. Transmission Provider shall compensate Interconnection Customer for any additional direct costs that Interconnection Customer incurs as a result of having to reschedule maintenance, including any additional overtime, breaking of maintenance contracts or other costs above and beyond the cost Interconnection Customer would have incurred absent Transmission Provider's request to reschedule maintenance. Interconnection Customer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, Interconnection Customer had modified its schedule of maintenance activities.

9.7.1.3 Outage Restoration. If an outage on a Party's Interconnection Facilities or Network Upgrades adversely affects the other Party's operations or facilities, the Party that owns or controls the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns or controls the facility that is out of service shall provide the other Party, to the extent such information is known, information on the nature of the Emergency Condition, an estimated time of restoration, and

any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice explaining the nature of the outage.

9.7.2 Interruption of Service. If required by Good Utility Practice to do so, Transmission Provider may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect Transmission Provider's ability to perform such activities as are necessary to safely and reliably operate and maintain the Transmission System. The following provisions shall apply to any interruption or reduction permitted under this Article 9.7.2:

9.7.2.1 The interruption or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;

9.7.2.2 Any such interruption or reduction shall be made on an equitable, non-discriminatory basis with respect to all generating facilities directly connected to the Transmission System;

9.7.2.3 When the interruption or reduction must be made under circumstances which do not allow for advance notice, Transmission Provider shall notify Interconnection Customer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification as soon as practicable;

9.7.2.4 Except during the existence of an Emergency Condition, when the interruption or reduction can be scheduled without advance notice, Transmission Provider shall notify Interconnection Customer in advance regarding the timing of such scheduling and further notify Interconnection Customer of the expected duration. Transmission Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the interruption or reduction during periods of least impact to Interconnection Customer and Transmission Provider;

9.7.2.5 The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Large Generating Facility, Interconnection Facilities, and the Transmission System to their normal operating state, consistent with system conditions and Good Utility Practice.

9.7.3 Under-Frequency and Over Frequency Conditions. The Transmission System is designed to automatically activate a load-shed program as required by the Applicable Reliability Council in the event of an under-frequency system disturbance. Interconnection Customer shall implement under-frequency and over-frequency relay set points for the Large Generating Facility as required by the Applicable Reliability Council to ensure "ride through" capability of the Transmission System. Large Generating Facility response to frequency deviations of pre-determined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with Transmission Provider in accordance with Good Utility Practice. The term "ride through" as used herein shall mean the ability of a Generating Facility to stay connected to and synchronized with the Transmission System during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice.

9.7.4 System Protection and Other Control Requirements.

9.7.4.1 System Protection Facilities. Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Transmission Provider shall install at Interconnection Customer's expense any System Protection Facilities that may be required on Transmission Provider's Interconnection Facilities or the Transmission System as a result of the interconnection of the Large Generating Facility and Interconnection Customer's Interconnection Facilities.

9.7.4.2 Each Party's protection facilities shall be designed and coordinated with other systems in accordance with Good Utility Practice.

9.7.4.3 Each Party shall be responsible for protection of its facilities consistent with Good Utility Practice.

9.7.4.4 Each Party's protective relay design shall incorporate the necessary test switches to perform the tests required in Article 6. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and causing unnecessary breaker operations and/or the tripping of Interconnection Customer's units.

9.7.4.5 Each Party will test, operate and maintain System Protection Facilities in accordance with Good Utility Practice.

9.7.4.6 Prior to the In-Service Date, and again prior to the Commercial Operation Date, each Party or its agent shall perform a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice and following any apparent malfunction of the System Protection Facilities, each Party shall perform both calibration and functional trip tests of its System Protection Facilities. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated.

9.7.5 Requirements for Protection. In compliance with Good Utility Practice, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the Transmission System not otherwise isolated by Transmission Provider's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the Transmission System. Such protective equipment shall include, without limitation, a disconnecting device or switch with load-interrupting capability located between the Large Generating Facility and the Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. Interconnection Customer shall be responsible for protection of the Large Generating Facility and Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. Interconnection

Customer shall be solely responsible to disconnect the Large Generating Facility and Interconnection Customer's other equipment if conditions on the Transmission System could adversely affect the Large Generating Facility.

9.7.6 Power Quality. Neither Party's facilities shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard. In the event of a conflict between ANSI Standard C84.1-1989, or any applicable superseding electric industry standard, ANSI Standard C84.1-1989, or the applicable superseding electric industry standard, shall control.

9.8 Switching and Tagging Rules. Each Party shall provide the other Party a copy of its switching and tagging rules that are applicable to the other Party's activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

9.9 Use of Interconnection Facilities by Third Parties.

9.9.1 Purpose of Interconnection Facilities. Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the Transmission System and shall be used for no other purpose.

9.9.2 Third Party Users. If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use Transmission Provider's Interconnection Facilities, or any part thereof, Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by Transmission Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually-agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by Transmission Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to FERC for resolution.

9.10 Disturbance Analysis Data Exchange. The Parties will cooperate with one another in the analysis of disturbances to either the Large Generating Facility or Transmission Provider's Transmission System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by Good Utility Practice.

Article 10. Maintenance

10.1 Transmission Provider Obligations. Transmission Provider shall maintain the Transmission System and Transmission Provider's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

10.2 Interconnection Customer Obligations. Interconnection Customer shall maintain the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

10.3 Coordination. The Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Large Generating Facility and the Interconnection Facilities.

10.4 Secondary Systems. Each Party shall cooperate with the other in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the operation of a Party's facilities and equipment which may reasonably be expected to impact the other Party. Each Party shall provide advance notice to the other Party before undertaking any work on such circuits, especially on electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.

10.5 Operating and Maintenance Expenses. Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such third party pays for such expenses, Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of Transmission Provider's Interconnection Facilities.

Article 11. Performance Obligation

11.1 Interconnection Customer Interconnection Facilities. Interconnection Customer shall design, procure, construct, install, own and/or control Interconnection Customer Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at its sole expense.

11.2 Transmission Provider's Interconnection Facilities. Transmission Provider or Transmission Owner shall design, procure, construct, install, own and/or control the Transmission Provider's Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at the sole expense of the Interconnection Customer.

11.3 Network Upgrades and Distribution Upgrades. Transmission Provider or Transmission Owner shall design, procure, construct, install, and own the Network Upgrades and Distribution Upgrades described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades. The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Unless Transmission Provider or Transmission Owner elects to fund the capital for the Network Upgrades, they shall be solely funded by Interconnection Customer.

11.4 Transmission Credits.

11.4.1 Repayment of Amounts Advanced for Network Upgrades. Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to Transmission Provider and Affected System Operator, if any, for the Network Upgrades, including any tax gross-up or other tax-related payments associated with Network Upgrades, and not refunded to Interconnection Customer pursuant to Article 5.17.8 or otherwise, to be paid to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under Transmission Provider's Tariff and Affected System's Tariff for transmission services with respect to the Large Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. Interconnection Customer may assign such repayment rights to any person.

Notwithstanding the foregoing, Interconnection Customer, Transmission Provider, and Affected System Operator may adopt any alternative payment schedule that is mutually agreeable so long as Transmission Provider and Affected System Operator take one of the following actions no later than five years from the Commercial Operation Date: (1) return to Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that Transmission Provider or Affected System Operator will continue to provide payments to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid;

however, full reimbursement shall not extend beyond twenty (20) years from the Commercial Operation Date.

If the Large Generating Facility fails to achieve commercial operation, but it or another Generating Facility is later constructed and makes use of the Network Upgrades, Transmission Provider and Affected System Operator shall at that time reimburse Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the Generating Facility, if different, is responsible for identifying the entity to which reimbursement must be made.

11.4.2 **Special Provisions for Affected Systems**. Unless Transmission Provider provides, under the LGIA, for the repayment of amounts advanced to Affected System Operator for Network Upgrades, Interconnection Customer and Affected System Operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by Interconnection Customer to the Affected System Operator as well as the repayment by the Affected System Operator.

11.4.3 Notwithstanding any other provision of this LGIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that Interconnection Customer, shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Large Generating Facility.

11.5 **Provision of Security**. At least thirty (30) Calendar Days prior to the commencement of the procurement, installation, or construction of a discrete portion of a Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades, Interconnection Customer shall provide Transmission Provider, at Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Transmission Provider and is consistent with the Uniform Commercial Code of the jurisdiction identified in Article 14.2.1. Such security for payment shall be in an amount sufficient to cover the costs for constructing, procuring and installing the applicable portion of Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to Transmission Provider for these purposes.

In addition:

11.5.1 The guarantee must be made by an entity that meets the creditworthiness requirements of Transmission Provider, and contain terms and conditions that guarantee payment of any amount that may be due from Interconnection Customer, up to an agreed-to maximum amount.

11.5.2 The letter of credit must be issued by a financial institution reasonably acceptable to Transmission Provider and must specify a reasonable expiration date.

11.5.3 The surety bond must be issued by an insurer reasonably acceptable to Transmission Provider and must specify a reasonable expiration date.

11.6 Interconnection Customer Compensation. If Transmission Provider requests or directs Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power), or 13.5.1 of this LGIA, Transmission Provider shall compensate Interconnection Customer in accordance with Interconnection Customer's applicable rate schedule then in effect unless the provision of such service(s) is subject to an RTO or ISO FERC-approved rate schedule. Interconnection Customer shall serve Transmission Provider or RTO or ISO with any filing of a proposed rate schedule at the time of such filing with FERC. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb any Reactive Power under this LGIA, Transmission Provider agrees to compensate Interconnection Customer in such amount as would have been due Interconnection Customer had the rate schedule been in effect at the time service commenced; provided, however, that such rate schedule must be filed at FERC or other appropriate Governmental Authority within sixty (60) Calendar Days of the commencement of service.

11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition. Transmission Provider or RTO or ISO shall compensate Interconnection Customer for its provision of real and reactive power and other Emergency Condition services that Interconnection Customer provides to support the Transmission System during an Emergency Condition in accordance with Article 11.6.

Article 12. Invoice

12.1 General. Each Party shall submit to the other Party, on a monthly basis, invoices of amounts due for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party under this LGIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

12.2 Final Invoice. Within six months after completion of the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades, Transmission Provider shall provide an invoice of the final cost of the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades and shall set forth such costs in sufficient detail to enable Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Transmission Provider shall refund to Interconnection Customer any amount by which the actual payment by Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice.

12.3 Payment. Invoices shall be rendered to the paying Party at the address specified in Appendix F. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by either Party will not constitute a waiver of any rights or claims either Party may have under this LGIA.

12.4 Disputes. In the event of a billing dispute between Transmission Provider and Interconnection Customer, Transmission Provider shall continue to provide Interconnection Service under this LGIA as long as Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Transmission Provider may provide notice to Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii).

Article 13. Emergencies

13.1 Definition. "Emergency Condition" shall mean a condition or situation: (i) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (ii) that, in the case of Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Transmission System, Transmission Provider's Interconnection Facilities or the Transmission Systems of others to which the Transmission System is directly connected; or (iii) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to**,** the Large Generating Facility or Interconnection Customer's Interconnection Facilities' System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by this LGIA to possess black start capability.

13.2 Obligations. Each Party shall comply with the Emergency Condition procedures of the applicable ISO/RTO, NERC, the Applicable Reliability Council, Applicable Laws and Regulations, and any emergency procedures agreed to by the Joint Operating Committee.

13.3 Notice. Transmission Provider shall notify Interconnection Customer promptly when it becomes aware of an Emergency Condition that affects Transmission Provider's Interconnection Facilities or the Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Interconnection Customer shall notify Transmission Provider promptly when it becomes aware of an Emergency Condition that affects the Large Generating Facility or Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the Transmission System or Transmission Provider's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Interconnection Customer's or Transmission Provider's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

13.4 Immediate Action. Unless, in Interconnection Customer's reasonable judgment, immediate action is required, Interconnection Customer shall obtain the consent of Transmission Provider, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by Transmission Provider or otherwise regarding the Transmission System.

13.5 Transmission Provider Authority.

13.5.1 General. Transmission Provider may take whatever actions or inactions with regard to the Transmission System or Transmission Provider's Interconnection Facilities it deems necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Transmission System or Transmission Provider's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

Transmission Provider shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Transmission Provider may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.5.2; directing Interconnection Customer to assist with blackstart (if available) or restoration efforts; or altering the outage schedules of the Large Generating Facility and Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of Transmission Provider's operating instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

13.5.2 Reduction and Disconnection. Transmission Provider may reduce Interconnection Service or disconnect the Large Generating Facility or Interconnection Customer's Interconnection Facilities, when such, reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. These rights are separate and distinct from any right of curtailment of Transmission Provider pursuant to Transmission Provider's Tariff. When Transmission Provider can schedule the reduction or disconnection in advance, Transmission Provider shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. Transmission Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to Interconnection Customer and Transmission Provider. Any reduction or disconnection shall continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Large Generating Facility, the Interconnection Facilities, and the Transmission System to their normal operating state as soon as practicable consistent with Good Utility Practice.

13.6 Interconnection Customer Authority. Consistent with Good Utility Practice and the LGIA and the LGIP, Interconnection Customer may take actions or inactions with regard to the Large Generating Facility or Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Large Generating Facility or Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Transmission System and Transmission Provider's Interconnection Facilities. Transmission Provider shall use Reasonable Efforts to assist Interconnection Customer in such actions.

13.7 Limited Liability. Except as otherwise provided in Article 11.6.1 of this LGIA, neither Party shall be liable to the other for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and is consistent with Good Utility Practice.

Article 14. Regulatory Requirements and Governing Law

14.1 Regulatory Requirements. Each Party's obligations under this LGIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this LGIA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978.

14.2 Governing Law.

14.2.1 The validity, interpretation and performance of this LGIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.

14.2.2 This LGIA is subject to all Applicable Laws and Regulations.

14.2.3 Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

Article 15. Notices.

15.1 General. Unless otherwise provided in this LGIA, any notice, demand or request required or permitted to be given by either Party to the other and any instrument required or permitted to be tendered or delivered by either Party in writing to the other shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F, Addresses for Delivery of Notices and Billings.

Either Party may change the notice information in this LGIA by giving five (5) Business Days written notice prior to the effective date of the change.

15.2 Billings and Payments. Billings and payments shall be sent to the addresses set out in Appendix F.

15.3 Alternative Forms of Notice. Any notice or request required or permitted to be given by a Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F.

15.4 Operations and Maintenance Notice . Each Party shall notify the other Party in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

Article 16. Force Majeure

16.1 Force Majeure.

16.1.1 Economic hardship is not considered a Force Majeure event.

16.1.2 Neither Party shall be considered to be in Default with respect to any obligation hereunder, (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

Article 17. Default

17.1 Default

17.1.1 General. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this LGIA or the result of an act of omission of the other Party. Upon a Breach, the non-breaching Party shall give written notice of such Breach to the breaching Party. Except as provided in Article 17.1.2, the breaching Party shall have thirty (30) Calendar Days from receipt of the Default notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Default notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

17.1.2 Right to Terminate. If a Breach is not cured as provided in this article, or if a Breach is not capable of being cured within the period provided for herein, the non-breaching Party shall have the right to declare a Default and terminate this LGIA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this LGIA, to recover from the breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this LGIA.

Article 18. Indemnity, Consequential Damages and Insurance

18.1 Indemnity. The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this LGIA on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnified Party.

18.1.1 Indemnified Person. If an Indemnified Person is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Person may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

18.1.2 Indemnifying Party. If an Indemnifying Party is obligated to indemnify and hold any Indemnified Person harmless under this Article 18, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

18.1.3 Indemnity Procedures. Promptly after receipt by an Indemnified Person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Person shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the Indemnifying Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses.

The Indemnified Person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the Indemnifying Party,

in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be reasonably withheld, conditioned or delayed.

18.2 **Consequential Damages**. Other than the Liquidated Damages heretofore described, in no event shall either Party be liable under any provision of this LGIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

18.3 **Insurance**. Each party shall, at its own expense, maintain in force throughout the period of this LGIA, and until released by the other Party, the following minimum insurance coverages, with insurers authorized to do business in the state where the Point of Interconnection is located:

18.3.1 Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.

18.3.2 Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars ($1,000,000) per occurrence/One Million Dollars ($1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

18.3.3 Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars ($1,000,000) per occurrence for bodily injury, including death, and property damage.

18.3.4 Excess Public Liability Insurance over and above the Employers' Liability Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars ($20,000,000) per occurrence/Twenty Million Dollars ($20,000,000) aggregate.

18.3.5 The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies shall name the other Party, its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as

additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calender Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.

18.3.6 The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.

18.3.7 The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.

18.3.8 The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this LGIA.

18.3.9 Within ten (10) days following execution of this LGIA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, each Party shall provide certification of all insurance required in this LGIA, executed by each insurer or by an authorized representative of each insurer.

18.3.10 Notwithstanding the foregoing, each Party may self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program; provided that, such Party's senior secured debt is rated at investment grade or better by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9. In the event that a Party is permitted to self-insure pursuant to this article, it shall notify the other Party that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.

18.3.11 The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this LGIA.

Article 19. Assignment

19.1 **Assignment**. This LGIA may be assigned by either Party only with the written consent of the other; provided that either Party may assign this LGIA without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this LGIA; and provided further that Interconnection Customer shall have the right to assign this LGIA, without the consent of Transmission Provider, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that Interconnection Customer will promptly notify Transmission Provider of any such assignment. Any financing arrangement entered into by Interconnection Customer pursuant to this article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify Transmission Provider of the date and particulars of any such exercise of assignment right(s), including providing the Transmission Provider with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this article is void and ineffective. Any assignment under this LGIA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

Article 20. Severability

20.1 **Severability**. If any provision in this LGIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this LGIA; provided that if Interconnection Customer (or any third party, but only if such third party is not acting at the direction of Transmission Provider) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

Article 21. Comparability

21.1 Comparability. The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

Article 22. Confidentiality

22.1 Confidentiality. Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of this LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing, the basis for asserting that the information referred to in this Article 22 warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

22.1.1 Term. During the term of this LGIA, and for a period of three (3) years after the expiration or termination of this LGIA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

22.1.2 Scope. Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this LGIA; or (6) is required, in accordance with Article 22.1.7 of the LGIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

22.1.3 Release of Confidential Information. Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with this LGIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any

person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.

22.1.4 Rights. Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

22.1.5 No Warranties. By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

22.1.6 Standard of Care. Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this LGIA or its regulatory requirements.

22.1.7 Order of Disclosure. If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

22.1.8 Termination of Agreement. Upon termination of this LGIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party) or return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party.

22.1.9 Remedies. The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity.

The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

22.1.10 Disclosure to FERC, its Staff, or a State. Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this LGIA, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this LGIA prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

22.1.11 Subject to the exception in Article 22.1.10, any information that a Party claims is competitively sensitive, commercial or financial information under this LGIA ("Confidential Information") shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIA or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

Article 23. Environmental Releases

23.1 Each Party shall notify the other Party, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Large Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Party copies of any publicly available reports filed with any Governmental Authorities addressing such events.

Article 24. Information Requirements

24.1 Information Acquisition. Transmission Provider and Interconnection Customer shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.

24.2 Information Submission by Transmission Provider. The initial information submission by Transmission Provider shall occur no later than one hundred eighty (180) Calendar Days prior to Trial Operation and shall include Transmission System information necessary to allow Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise agreed to by the Parties. On a monthly basis Transmission Provider shall provide Interconnection Customer a status report on the construction and installation of Transmission Provider's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.

24.3 Updated Information Submission by Interconnection Customer. The updated information submission by Interconnection Customer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation. Interconnection Customer shall submit a completed copy of the Large Generating Facility data requirements contained in Appendix 1 to the LGIP. It shall also include any additional information provided to Transmission Provider for the Feasibility and Facilities Study. Information in this submission shall be the most current Large Generating Facility design or expected performance data. Information submitted for stability models shall be compatible with Transmission Provider standard models. If there is no compatible model, Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If Interconnection Customer's data is materially different from what was originally provided to Transmission Provider pursuant to the Interconnection Study Agreement between Transmission Provider and Interconnection Customer, then Transmission Provider will conduct appropriate studies to determine the impact on Transmission Provider Transmission System based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed.

24.4 Information Supplementation. Prior to the Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all "as-built" Large Generating Facility information or "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Large Generating Facility as required by Good Utility Practice such as an open circuit "step voltage" test on the Large Generating Facility to verify proper operation of the Large Generating Facility's automatic voltage regulator.

Unless otherwise agreed, the test conditions shall include: (1) Large Generating Facility at synchronous speed; (2) automatic voltage regulator on and in voltage control mode;

and (3) a five percent change in Large Generating Facility terminal voltage initiated by a change in the voltage regulators reference voltage. Interconnection Customer shall provide validated test recordings showing the responses of Large Generating Facility terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Large Generating Facility's terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual Large Generating Facility terminal or field voltages is provided. Large Generating Facility testing shall be conducted and results provided to Transmission Provider for each individual generating unit in a station.

Subsequent to the Operation Date, Interconnection Customer shall provide Transmission Provider any information changes due to equipment replacement, repair, or adjustment. Transmission Provider shall provide Interconnection Customer any information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent Transmission Provider-owned substation that may affect Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information no later than thirty (30) Calendar Days after the date of the equipment replacement, repair or adjustment.

Article 25. Information Access and Audit Rights

25.1 Information Access. Each Party (the "disclosing Party") shall make available to the other Party information that is in the possession of the disclosing Party and is necessary in order for the other Party to: (i) verify the costs incurred by the disclosing Party for which the other Party is responsible under this LGIA; and
(ii) carry out its obligations and responsibilities under this LGIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this LGIA.

25.2 Reporting of Non-Force Majeure Events. Each Party (the "notifying Party") shall notify the other Party when the notifying Party becomes aware of its inability to comply with the provisions of this LGIA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this LGIA.

25.3 Audit Rights. Subject to the requirements of confidentiality under Article 22 of this LGIA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Party, to audit at its own expense the other Party's accounts and records pertaining to either Party's performance or either Party's satisfaction of obligations under this LGIA. Such audit rights shall include audits of the other Party's costs, calculation of invoiced amounts, Transmission Provider's efforts to allocate responsibility for the provision of reactive support to the Transmission System, Transmission Provider's efforts to allocate responsibility for interruption or reduction of generation on the Transmission System, and each Party's actions in an Emergency Condition. Any audit authorized by this article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party's performance and satisfaction of obligations under this LGIA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

25.4 Audit Rights Periods.

25.4.1 Audit Rights Period for Construction-Related Accounts and Records. Accounts and records related to the design, engineering, procurement, and construction of Transmission Provider's Interconnection Facilities and Network Upgrades shall be subject to audit for a period of twenty-four months following Transmission Provider's issuance of a final invoice in accordance with Article 12.2.

25.4.2 Audit Rights Period for All Other Accounts and Records. Accounts and records related to either Party's performance or satisfaction of all obligations under this LGIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all

other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought.

25.5 **Audit Results**. If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which support such determination.

Article 26. Subcontractors

26.1 **General**. Nothing in this LGIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this LGIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this LGIA in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

26.2 **Responsibility of Principal**. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this LGIA. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall Transmission Provider be liable for the actions or inactions of Interconnection Customer or its subcontractors with respect to obligations of Interconnection Customer under Article 5 of this LGIA. Any applicable obligation imposed by this LGIA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

26.3 **No Limitation by Insurance**. The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

Article 27. Disputes

27.1 Submission. In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this LGIA or its performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

27.2 External Arbitration Procedures. Any arbitration initiated under this LGIA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail.

27.3 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this LGIA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

27.4 Costs. Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

Article 28. Representations, Warranties, and Covenants

28.1 General. Each Party makes the following representations, warranties and covenants:

28.1.1 Good Standing. Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Large Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located**;** and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this LGIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this LGIA.

28.1.2 Authority. Such Party has the right, power and authority to enter into this LGIA, to become a Party hereto and to perform its obligations hereunder. This LGIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

28.1.3 No Conflict. The execution, delivery and performance of this LGIA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

28.1.4 Consent and Approval. Such Party has sought or obtained, or, in accordance with this LGIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this LGIA, and it will provide to any Governmental Authority notice of any actions under this LGIA that are required by Applicable Laws and Regulations.

Article 29. Joint Operating Committee

29.1 Joint Operating Committee. Except in the case of ISOs and RTOs, Transmission Provider shall constitute a Joint Operating Committee to coordinate operating and technical considerations of Interconnection Service. At least six (6) months prior to the expected Initial Synchronization Date, Interconnection Customer and Transmission Provider shall each appoint one representative and one alternate to the Joint Operating Committee. Each Interconnection Customer shall notify Transmission Provider of its appointment in writing. Such appointments may be changed at any time by similar notice. The Joint Operating Committee shall meet as necessary, but not less than once each calendar year, to carry out the duties set forth herein. The Joint Operating Committee shall hold a meeting at the request of either Party, at a time and place agreed upon by the representatives. The Joint Operating Committee shall perform all of its duties consistent with the provisions of this LGIA. Each Party shall cooperate in providing to the Joint Operating Committee all information required in the performance of the Joint Operating Committee's duties. All decisions and agreements, if any, made by the Joint Operating Committee, shall be evidenced in writing. The duties of the Joint Operating Committee shall include the following:

29.1.1 Establish data requirements and operating record requirements.

29.1.2 Review the requirements, standards, and procedures for data acquisition equipment, protective equipment, and any other equipment or software.

29.1.3 Annually review the one (1) year forecast of maintenance and planned outage schedules of Transmission Provider's and Interconnection Customer's facilities at the Point of Interconnection.

29.1.4 Coordinate the scheduling of maintenance and planned outages on the Interconnection Facilities, the Large Generating Facility and other facilities that impact the normal operation of the interconnection of the Large Generating Facility to the Transmission System.

29.1.5 Ensure that information is being provided by each Party regarding equipment availability.

29.1.6 Perform such other duties as may be conferred upon it by mutual agreement of the Parties.

Article 30. Miscellaneous

30.1 Binding Effect. This LGIA and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

30.2 Conflicts. In the event of a conflict between the body of this LGIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this LGIA shall prevail and be deemed the final intent of the Parties.

30.3 Rules of Interpretation. This LGIA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this LGIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this LGIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this LGIA or such Appendix to this LGIA, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this LGIA as a whole and not to any particular Article or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

30.4 Entire Agreement. This LGIA, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this LGIA. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this LGIA.

30.5 No Third Party Beneficiaries. This LGIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

30.6 Waiver. The failure of a Party to this LGIA to insist, on any occasion, upon strict performance of any provision of this LGIA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this LGIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with

any other obligation, right, duty of this LGIA. Termination or Default of this LGIA for any reason by Interconnection Customer shall not constitute a waiver of Interconnection Customer's legal rights to obtain an interconnection from Transmission Provider. Any waiver of this LGIA shall, if requested, be provided in writing.

30.7 Headings. The descriptive headings of the various Articles of this LGIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this LGIA.

30.8 Multiple Counterparts. This LGIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

30.9 Amendment. The Parties may by mutual agreement amend this LGIA by a written instrument duly executed by the Parties.

30.10 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this LGIA by a written instrument duly executed by the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.

30.11 Reservation of Rights. Transmission Provider shall have the right to make a unilateral filing with FERC to modify this LGIA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this LGIA shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

30.12 No Partnership. This LGIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

IN WITNESS WHEREOF, the Parties have executed this LGIA in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By:	_____	By:	_____
Title:	_____	Title:	_____
Date:	_____	Date:	_____

[Insert name of Interconnection Customer]

By:	_____
Title:	_____
Date:	_____

Appendix A to LGIA

Interconnection Facilities, Network Upgrades and Distribution Upgrades

1. Interconnection Facilities:

(a) [insert Interconnection Customer's Interconnection Facilities]:

(b) [insert Transmission Provider's Interconnection Facilities]:

2. Network Upgrades:

(a) [insert Stand Alone Network Upgrades]:

(b) [insert Other Network Upgrades]:

3. Distribution Upgrades:

4. Coordination with Affected Systems. Pursuant to Section 3.5 of the APS Large Generator Interconnection Procedures, the Transmission Provider has the right to delay and/or prevent energization of the Interconnection Facilities if the Interconnection Customer does not fully address all Affected System issues associated with the Interconnection Request. If the Interconnection Facilities are not energized, and the Commercial Operation Date is not achieved, within the timeframe specified in Section 3.3.1 of APS's LGIP, the Interconnection Request will be deemed withdrawn and the LGIA will be terminated.

Appendix B to LGIA

Milestones

Appendix C to LGIA

Interconnection Details

Appendix D to LGIA

Security Arrangements Details

Infrastructure security of Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day Transmission System reliability and operational security. FERC will expect all Transmission Providers, market participants, and Interconnection Customers interconnected to the Transmission System to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

Appendix E to LGIA

Commercial Operation Date

This Appendix E is a part of the LGIA between Transmission Provider and Interconnection Customer.

[Date]

[Transmission Provider Address]

Re: _____ Large Generating Facility

Dear _____:

On **[Date] [Interconnection Customer]** has completed Trial Operation of Unit No. ___. This letter confirms that [Interconnection Customer] commenced Commercial Operation of Unit No. ___ at the Large Generating Facility, effective as of **[Date plus one day]**.

Thank you.

[Signature]

[Interconnection Customer Representative]

Appendix F to LGIA

Addresses for Delivery of Notices and Billings

Notices:.

Transmission Provider:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

Billings and Payments:

Transmission Provider:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

Alternative Forms of Delivery of Notices (telephone, facsimile or email):

Transmission Provider:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

Appendix G to LGIA

Interconnection Requirements for a Wind Generating Plant

Appendix G sets forth requirements and provisions specific to a wind generating plant. All other requirements of this LGIA continue to apply to wind generating plant interconnections.

A. Technical Standards Applicable to a Wind Generating Plant

i. Low Voltage Ride-Through (LVRT) Capability

A wind generating plant shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below. The LVRT standard provides for a transition period standard and a post-transition period standard.

Transition Period LVRT Standard

The transition period standard applies to wind generating plants subject to FERC Order 661 that have either: (i) interconnection agreements signed and filed with the Commission, filed with the Commission in unexecuted form, or filed with the Commission as non-conforming agreements between January 1, 2006 and December 31, 2006, with a scheduled in-service date no later than December 31, 2007, or (ii) wind generating turbines subject to a wind turbine procurement contract executed prior to December 31, 2005, for delivery through 2007.

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the transmission provider. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles at a voltage as low as 0.15 p.u., as measured at the high side of the wind generating plant step-up transformer (i.e. the transformer that steps the voltage up to the transmission interconnection voltage or "GSU"), after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system.
2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU or to faults that would result in a voltage lower than 0.15 per unit on the high side of the GSU serving the facility.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAr Compensator, etc.) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

Post-transition Period LVRT Standard

All wind generating plants subject to FERC Order No. 661 and not covered by the transition period described above must meet the following requirements:

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the transmission provider. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system. A wind generating plant shall remain interconnected during such a fault on the transmission system for a voltage level as low as zero volts, as measured at the high voltage side of the wind GSU.
2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAr Compensator) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

ii. Power Factor Design Criteria (Reactive Power)

The following reactive power requirements apply only to a newly interconnecting wind generating plant that has executed a Facilities Study Agreement as of the effective date of the Final Rule establishing the reactive power requirements for non-synchronous generators in section 9.6.1 of this LGIA (Order No. 827). A wind generating plant to which this provision applies shall maintain a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA, if the Transmission Provider's System Impact Study shows that such a requirement is necessary to ensure safety or reliability. The power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors if agreed to by the Transmission Provider, or a combination of the two. The Interconnection Customer shall not disable power factor equipment while the wind plant is in operation. Wind plants shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the System Impact Study shows this to be required for system safety or reliability.

iii. Supervisory Control and Data Acquisition (SCADA) Capability

The wind plant shall provide SCADA capability to transmit data and receive instructions from the Transmission Provider to protect system reliability. The Transmission Provider and the wind plant Interconnection Customer shall determine what SCADA information is essential for the proposed wind plant, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.

Appendix H
To LGIA

Section Reserved for Future Use

APPENDIX 7

INTERCONNECTION PROCEDURES FOR A WIND GENERATING PLANT

Appendix G sets forth procedures specific to a wind generating plant. All other requirements of this LGIP continue to apply to wind generating plant interconnections.

A. Special Procedures Applicable to Wind Generators

The wind plant Interconnection Customer, in completing the Interconnection Request required by section 3.3 of this LGIP, may provide to the Transmission Provider a set of preliminary electrical design specifications depicting the wind plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request conditions, the wind plant may enter the queue and receive the base case data as provided for in this LGIP.

No later than six months after submitting an Interconnection Request completed in this manner, the wind plant Interconnection Customer must submit completed detailed electrical design specifications and other data (including collector system layout data) needed to allow the Transmission Provider to complete the System Impact Study.

Attachment P
SGIP and SGIA

SMALL GENERATOR

INTERCONNECTION PROCEDURES (SGIP)

including

SMALL GENERATOR

INTERCONNECTION AGREEMENT (SGIA)

SMALL GENERATOR
INTERCONNECTION PROCEDURES (SGIP)

(For Generating Facilities No Larger Than 20 MW)

TABLE OF CONTENTS

Section 1. Application

1.1 Applicability

1.1.1 A request to interconnect a certified Small Generating Facility (See Attachments 3 and 4 for description of certification criteria) to the Transmission Provider's Distribution System shall be evaluated under the section 2 Fast Track Process if the eligibility requirements of section 2.1 are met. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 kilowatts (kW) shall be evaluated under the Attachment 5 10 kW Inverter Process. A request to interconnect a Small Generating Facility no larger than 20 megawatts (MW) that does not meet the eligibility requirements of section 2.1, or does not pass the Fast Track Process or the 10 kW Inverter Process, shall be evaluated under the section 3 Study Process. If the Interconnection Customer wishes to interconnect its Small Generating Facility using Network Resource Interconnection Service, it must do so under the Standard Large Generator Interconnection Procedures and execute the Standard Large Generator Interconnection Agreement.

1.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of these procedures.

1.1.3 Neither these procedures nor the requirements included hereunder apply to Small Generating Facilities interconnected or approved for interconnection prior to 60 Business Days after the effective date of these procedures.

1.1.4 Prior to submitting its Interconnection Request (Attachment 2), the Interconnection Customer may ask the Transmission Provider's interconnection contact employee or office whether the proposed interconnection is subject to these procedures. The Transmission Provider shall respond within 15 Business Days.

1.1.5 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Federal Energy Regulatory Commission expects all Transmission Providers, market participants, and Interconnection Customers interconnected with electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

1.1.6 References in these procedures to interconnection agreement are to the Small Generator Interconnection Agreement (SGIA).

1.2 Pre-Application

1.2.1 The Transmission Provider shall designate an employee or office from which information on the application process and on an Affected System can be obtained through informal requests from the Interconnection Customer

presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the Transmission Provider's Internet web site. Electric system information provided to the Interconnection Customer should include relevant system studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Transmission Provider's Transmission System, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The Transmission Provider shall comply with reasonable requests for such information.

1.2.2 In addition to the information described in section 1.2.1, which may be provided in response to an informal request, an Interconnection Customer may submit a formal written request form along with a non-refundable fee of $300 for a pre-application report on a proposed project at a specific site. The Transmission Provider shall provide the pre-application data described in section 1.2.3 to the Interconnection Customer within 20 Business Days of receipt of the completed request form and payment of the $300 fee. The pre-application report produced by the Transmission Provider is non-binding, does not confer any rights, and the Interconnection Customer must still successfully apply to interconnect to the Transmission Provider's system. The written pre-application report request form shall include the information in sections 1.2.2.1 through 1.2.2.8 below to clearly and sufficiently identify the location of the proposed Point of Interconnection.

1.2.2.1 Project contact information, including name, address, phone number, and email address.

1.2.2.2 Project location (street address with nearby cross streets and town)

1.2.2.3 Meter number, pole number, or other equivalent information identifying proposed Point of Interconnection, if available.

1.2.2.4 Generator Type (e.g., solar, wind, combined heat and power, etc.)

1.2.2.5 Size (alternating current kW)

1.2.2.6 Single or three phase generator configuration

1.2.2.7 Stand-alone generator (no onsite load, not including station service - Yes or No?)

1.2.2.8 Is new service requested? Yes or No? If there is existing service, include the customer account number, site minimum and maximum current or proposed electric loads in kW (if available) and specify if the load is expected to change.

1.2.3. Using the information provided in the pre-application report request form in section 1.2.2, the Transmission Provider will identify the substation/area bus, bank or circuit likely to serve the proposed Point of Interconnection. This selection by the Transmission Provider does not necessarily indicate, after application of the screens and/or study, that this would be the circuit the project ultimately connects to. The Interconnection Customer must request additional pre-application reports if information about multiple Points of Interconnection is requested. Subject to section 1.2.4, the pre-application report will include the following information:

1.2.3.1 Total capacity (in MW) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed Point of Interconnection.

1.2.3.2 Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed Point of Interconnection.

1.2.3.3 Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Interconnection.

1.2.3.4 Available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed Point of Interconnection (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).

1.2.3.5 Substation nominal distribution voltage and/or transmission nominal voltage if applicable.

1.2.3.6 Nominal distribution circuit voltage at the proposed Point of Interconnection.

1.2.3.7 Approximate circuit distance between the proposed Point of Interconnection and the substation.

1.2.3.8 Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load as described in section 2.4.4.1.1 below and absolute minimum load, when available.

1.2.3.9 Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of Interconnection and the substation/area. Identify whether the substation has a load tap changer.

1.2.3.10 Number of phases available at the proposed Point of Interconnection. If a single phase, distance from the three-phase circuit.

1.2.3.11 Limiting conductor ratings from the proposed Point of Interconnection to the distribution substation.

1.2.3.12 Whether the Point of Interconnection is located on a spot network, grid network, or radial supply.

1.2.3.13 Based on the proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

1.2.4 The pre-application report need only include existing data. A pre-application report request does not obligate the Transmission Provider to conduct a study or other analysis of the proposed generator in the event that data is not readily available. If the Transmission Provider cannot complete all or some of a pre-application report due to lack of available data, the Transmission Provider shall provide the Interconnection Customer with a pre-application report that includes the data that is available. The provision of information on "available capacity" pursuant to section 1.2.3.4 does not imply that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process, and data provided in the pre-application report may become outdated at the time of the submission of the complete Interconnection Request. Notwithstanding any of the provisions of this section, the Transmission Provider shall, in good faith, include data in the pre-application report that represents the best available information at the time of reporting.

1.3 Interconnection Request

The Interconnection Customer shall submit its Interconnection Request to the Transmission Provider, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date- and time-stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The Interconnection Customer shall be notified of receipt by the Transmission Provider within three Business Days of receiving the Interconnection Request. The Transmission Provider shall notify the Interconnection Customer within ten Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the Transmission Provider shall provide along with the notice that the Interconnection Request is incomplete, a written list detailing all information that must be provided to complete the Interconnection Request. The Interconnection Customer will have ten Business Days after receipt of the notice to submit the listed information or to request an extension of time to provide such information. If the Interconnection Customer does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the Transmission Provider.

1.4 Modification of the Interconnection Request

Any modification to machine data or equipment configuration or to the interconnection site of the Small Generating Facility not agreed to in writing by the Transmission Provider and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.

1.5 Site Control

Documentation of site control must be submitted with the Interconnection Request. Site control may be demonstrated through:

1.5.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Small Generating Facility;

1.5.2 An option to purchase or acquire a leasehold site for such purpose; or

1.5.3 An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose.

1.6 Queue Position

The Transmission Provider shall assign a Queue Position based upon the date- and time-stamp of the Interconnection Request. The Queue Position of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The Transmission Provider shall maintain a single queue per geographic region. At the Transmission Provider's option, Interconnection Requests may be studied serially or in clusters for the purpose of the system impact study.

1.7 Interconnection Requests Submitted Prior to the Effective Date of the SGIP

Nothing in this SGIP affects an Interconnection Customer's Queue Position assigned before the effective date of this SGIP. The Parties agree to complete work on any interconnection study agreement executed prior the effective date of this SGIP in accordance with the terms and conditions of that interconnection study agreement. Any new studies or other additional work will be completed pursuant to this SGIP.

Section 2. Fast Track Process

2.1 Applicability

The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the Transmission Provider's Distribution System if the Small Generating Facility's capacity does not exceed the size limits identified in the table below. Small Generating Facilities below these limits are eligible for Fast Track review. However, Fast Track eligibility is distinct from the Fast Track Process itself, and eligibility does not imply or indicate that a Small Generating Facility will pass the Fast Track screens in section 2.2.1 below or the Supplemental Review screens in section 2.4.4 below.

Fast Track eligibility is determined based upon the generator type, the size of the generator, voltage of the line and the location of and the type of line at the Point of Interconnection. All Small Generating Facilities connecting to lines greater than 69 kilovolt (kV) are ineligible for the Fast Track Process regardless of size. All synchronous and induction machines must be no larger than 2 MW to be eligible for the Fast Track Process, regardless of location. For certified inverter-based systems, the size limit varies according to the voltage of the line at the proposed Point of Interconnection. Certified inverter-based Small Generating Facilities located within 2.5 electrical circuit miles of a substation and on a mainline (as defined in the table below) are eligible for the Fast Track Process under the higher thresholds according to the table below. In addition to the size threshold, the Interconnection Customer's proposed Small Generating Facility must meet the codes, standards, and certification requirements of Attachments 3 and 4 of these procedures, or the Transmission Provider has to have reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

Fast Track Eligibility for Inverter-Based Systems		
Line Voltage	Fast Track Eligibility Regardless of Location	Fast Track Eligibility on a Mainline[1] and ≤ 2.5 Electrical Circuit Miles from Substation[2]
< 5 kV	≤ 500 kW	≤ 500 kW
≥ 5 kV and < 15 kV	≤ 2 MW	≤ 3 MW
≥ 15 kV and < 30 kV	≤ 3 MW	≤ 4 MW
≥ 30 kV and ≤ 69 kV	≤ 4 MW	≤ 5 MW

[1] For purposes of this table, a mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil.

[2] An Interconnection Customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report pursuant to section 1.2.

2.2 Initial Review

Within 15 Business Days after the Transmission Provider notifies the Interconnection Customer it has received a complete Interconnection Request, the Transmission Provider shall perform an initial review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the Transmission Provider's determinations under the screens.

2.2.1 Screens

2.2.1.1 The proposed Small Generating Facility's Point of Interconnection must be on a portion of the Transmission Provider's Distribution System that is subject to the Tariff.

2.2.1.2 For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 % of the line section annual peak load as most recently measured at the substation. A line section is that portion of a Transmission Provider's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.

2.2.1.3 For interconnection of a proposed Small Generating Facility to the load side of spot network protectors, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5 % of a spot network's maximum load or 50 kW[3].

2.2.1.4 The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10 % to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.

2.2.1.5 The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 % of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5 % of the short circuit interrupting capability.

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[3] A spot Network is a type of distribution system found within modern commercial buildings to provide high reliability of service to a single customer. (Standard Handbook for Electrical Engineers, 11th edition, Donald Fink, McGraw Hill Book Company)

2.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Transmission Provider's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	**Type of Interconnection to Primary Distribution Line**	**Result/Criteria**
~~Three-phase, three wire~~	3-phase or single phase, phase-to-phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

2.2.1.7 If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.

2.2.1.8 If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20 % of the nameplate rating of the service transformer.

2.2.1.9 The Small Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Small Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the point of interconnection).

2.2.1.10 No construction of facilities by the Transmission Provider on its own system shall be required to accommodate the Small Generating Facility.

2.2.2 If the proposed interconnection passes the screens, the Interconnection Request shall be approved and the Transmission Provider will provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.

2.2.3 If the proposed interconnection fails the screens, but the Transmission Provider determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the Transmission

Provider shall provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.

2.2.4 If the proposed interconnection fails the screens, and the Transmission Provider does not or cannot determine from the initial review that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Transmission Provider shall provide the Interconnection Customer with the opportunity to attend a customer options meeting.

2.3 Customer Options Meeting

If the Transmission Provider determines the Interconnection Request cannot be approved without (1) minor modifications at minimal cost, (2) a supplemental study or other additional studies or actions, or (3) incurring significant cost to address safety, reliability, or power quality problems, the Transmission Provider shall notify the Interconnection Customer of that determination within five Business Days after the determination and provide copies of all data and analyses underlying its conclusion. Within ten Business Days of the Transmission Provider's determination, the Transmission Provider shall offer to convene a customer options meeting with the Transmission Provider to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the Transmission Provider's determination, or at the customer options meeting, the Transmission Provider shall:

2.3.1 Offer to perform facility modifications or minor modifications to the Transmission Provider's electric system(e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Transmission Provider's electric system. If the Interconnection Customer agrees to pay for the modifications to the Transmission Provider's electric system, the Transmission Provider will provide the Interconnection Customer with an executable interconnection agreement within ten Business Days of the customer options meeting; or

2.3.2 Offer to perform a supplemental review in accordance with section 2.4 and provide a non-binding good faith estimate of the costs of such review; or

2.3.3 Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the section 3 Study Process.

2.4 Supplemental Review

2.4.1 To accept the offer of a supplemental review, the Interconnection Customer shall agree in writing, and submit a deposit for the estimated costs of the supplemental review in the amount of the Transmission Provider's good faith estimate of the costs of such review, both within 15 Business Days of the offer. If the written agreement and deposit have not been received by the Transmission Provider within that timeframe, the Interconnection Request shall continue to be evaluated under the section 3 Study Process unless it is withdrawn by the Interconnection Customer. .

2.4.2 The Interconnection Customer may specify the order in which the Transmission Provider will complete the screens in section 2.4.4.

2.4.3 The Interconnection Customer shall be responsible for the Transmission Provider's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within 20 Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Transmission Provider will return such excess within 20 Business Days of the invoice without interest.

2.4.4 Within 30 Business Days following receipt of the deposit for a supplemental review, the Transmission Provider shall (1) perform a supplemental review using the screens set forth below; (2) notify in writing the Interconnection Customer of the results; and (3) include with the notification copies of the analysis and data underlying the Transmission Provider's determinations under the screens. Unless the Interconnection Customer provided instructions for how to respond to the failure of any of the supplemental review screens below at the time the Interconnection Customer accepted the offer of supplemental review, the Transmission Provider shall notify the Interconnection Customer following the failure of any of the screens, or if it is unable to perform the screen in section 2.4.4.1, within two Business Days of making such determination to obtain the Interconnection Customer's permission to: (1) continue evaluating the proposed interconnection under this section 2.4.4; (2) terminate the supplemental review and continue evaluating the Small Generating Facility under section 3; or (3) terminate the supplemental review upon withdrawal of the Interconnection Request by the Interconnection Customer..

2.4.4.1 Minimum Load Screen: Where 12 months of line section minimum load data (including onsite load but not station service load served by the proposed Small Generating Facility) are available, can be calculated, can be estimated from existing data, or determined from a power flow model, the aggregate Generating Facility capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed Small Generating Facility. If minimum load data is not available, or cannot be calculated, estimated or determined, the Transmission Provider shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under section 2.4.4.

2.4.4.1.1 The type of generation used by the proposed Small Generating Facility will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen

2.4.4.1. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e. 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation uses absolute minimum load.

2.4.4.1.2 When this screen is being applied to a Small Generating Facility that serves some station service load, only the net injection into the Transmission Provider's electric system will be considered as part of the aggregate generation.

2.4.4.1.3 Transmission Provider will not consider as part of the aggregate generation for purposes of this screen generating facility capacity known to be already reflected in the minimum load data.

2.4.4.2 Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuation is within acceptable limits as defined by Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels meet IEEE Standard 519 limits.

2.4.4.3 Safety and Reliability Screen: The location of the proposed Small Generating Facility and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The Transmission Provider shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen.

2.4.4.3.1 Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers).

2.4.4.3.2 Whether the loading along the line section is uniform or even.

2.4.4.3.3 Whether the proposed Small Generating Facility is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Interconnection is a Mainline rated for normal and emergency ampacity.

2.4.4.3.4 Whether the proposed Small Generating Facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.

2.4.4.3.5 Whether operational flexibility is reduced by the proposed Small Generating Facility, such that transfer of the line section(s) of the Small Generating Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues.

2.4.4.3.6 Whether the proposed Small Generating Facility employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.

2.4.5 If the proposed interconnection passes the supplemental screens in sections 2.4.4.1, 2.4.4.2, and 2.4.4.3 above, the Interconnection Request shall be approved and the Transmission Provider will provide the Interconnection Customer with an executable interconnection agreement within the timeframes established in sections 2.4.5.1 and 2.4.5.2 below. If the proposed interconnection fails any of the supplemental review screens and the Interconnection Customer does not withdraw its Interconnection Request, it shall continue to be evaluated under the section 3 Study Process consistent with section 2.4.5.3 below.

2.4.5.1 If the proposed interconnection passes the supplemental screens in sections 2.4.4.1, 2.4.4.2, and 2.4.4.3 above and does not require construction of facilities by the Transmission Provider on its own system, the interconnection agreement shall be provided within ten Business Days after the notification of the supplemental review results.

2.4.5.2 If interconnection facilities or minor modifications to the Transmission Provider's system are required for the proposed interconnection to pass the supplemental screens in sections 2.4.4.1, 2.4.4.2, and 2.4.4.3 above, and the Interconnection Customer agrees to pay for the modifications to the Transmission Provider’s electric system, the interconnection agreement, along with a non-binding good faith estimate for the interconnection facilities and/or minor modifications, shall be provided to the Interconnection Customer within 15 Business Days after receiving written notification of the supplemental review results.

2.4.5.3 If the proposed interconnection would require more than interconnection facilities or minor modifications to the Transmission Provider’s system to pass the supplemental screens in sections 2.4.4.1, 2.4.4.2, and 2.4.4.3 above, the Transmission Provider shall notify the Interconnection Customer, at the same time it notifies the Interconnection Customer with the supplemental review results, that the Interconnection Request shall be evaluated under the section 3 Study Process unless the Interconnection Customer withdraws its Small Generating Facility.

Section 3. Study Process

3.1 Applicability

The Study Process shall be used by an Interconnection Customer proposing to interconnect its Small Generating Facility with the Transmission Provider's Transmission System or Distribution System if the Small Generating Facility (1) is larger than 2 MW but no larger than 20 MW, (2) is not certified, or (3) is certified but did not pass the Fast Track Process or the 10 kW Inverter Process.

3.2 Scoping Meeting

3.2.1 A scoping meeting will be held within ten Business Days after the Interconnection Request is deemed complete, or as otherwise mutually agreed to by the Parties. The Transmission Provider and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting.

3.2.2 The purpose of the scoping meeting is to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request. The Parties shall further discuss whether the Transmission Provider should perform a feasibility study or proceed directly to a system impact study, or a facilities study, or an interconnection agreement. If the Parties agree that a feasibility study should be performed, the Transmission Provider shall provide the Interconnection Customer, as soon as possible, but not later than five Business Days after the scoping meeting, a feasibility study agreement (Attachment 6) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

3.2.3 The scoping meeting may be omitted by mutual agreement. In order to remain in consideration for interconnection, an Interconnection Customer who has requested a feasibility study must return the executed feasibility study agreement within 15 Business Days. If the Parties agree not to perform a feasibility study, the Transmission Provider shall provide the Interconnection Customer, no later than five Business Days after the scoping meeting, a system impact study agreement (Attachment 7) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

3.3 Feasibility Study

3.3.1 The feasibility study shall identify any potential adverse system impacts that would result from the interconnection of the Small Generating Facility.

3.3.2 A deposit of the lesser of 50 percent of the good faith estimated feasibility study costs or earnest money of $1,000 may be required from the Interconnection Customer.

3.3.3 The scope of and cost responsibilities for the feasibility study are described in the attached feasibility study agreement (Attachment 6).

3.3.4 If the feasibility study shows no potential for adverse system impacts, the Transmission Provider shall send the Interconnection Customer a facilities study

agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. If no additional facilities are required, the Transmission Provider shall send the Interconnection Customer an executable interconnection agreement within five Business Days.

3.3.5 If the feasibility study shows the potential for adverse system impacts, the review process shall proceed to the appropriate system impact study(s).

3.4 System Impact Study

3.4.1 A system impact study shall identify and detail the electric system impacts that would result if the proposed Small Generating Facility were interconnected without project modifications or electric system modifications, focusing on the adverse system impacts identified in the feasibility study, or to study potential impacts, including but not limited to those identified in the scoping meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.

3.4.2 If no transmission system impact study is required, but potential electric power Distribution System adverse system impacts are identified in the scoping meeting or shown in the feasibility study, a distribution system impact study must be performed. The Transmission Provider shall send the Interconnection Customer a distribution system impact study agreement within 15 Business Days of transmittal of the feasibility study report, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or following the scoping meeting if no feasibility study is to be performed.

3.4.3 In instances where the feasibility study or the distribution system impact study shows potential for transmission system adverse system impacts, within five Business Days following transmittal of the feasibility study report, the Transmission Provider shall send the Interconnection Customer a transmission system impact study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, if such a study is required.

3.4.4 If a transmission system impact study is not required, but electric power Distribution System adverse system impacts are shown by the feasibility study to be possible and no distribution system impact study has been conducted, the Transmission Provider shall send the Interconnection Customer a distribution system impact study agreement.

3.4.5 If the feasibility study shows no potential for transmission system or Distribution System adverse system impacts, the Transmission Provider shall send the Interconnection Customer either a facilities study agreement (Attachment 8), including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or an executable interconnection agreement, as applicable.

3.4.6 In order to remain under consideration for interconnection, the Interconnection Customer must return executed system impact study agreements, if applicable, within 30 Business Days.

3.4.7 A deposit of the good faith estimated costs for each system impact study may be required from the Interconnection Customer.

3.4.8 The scope of and cost responsibilities for a system impact study are described in the attached system impact study agreement.

3.4.9 Where transmission systems and Distribution Systems have separate owners, such as is the case with transmission-dependent utilities ("TDUs") - whether investor-owned or not - the Interconnection Customer may apply to the nearest Transmission Provider (Transmission Owner, Regional Transmission Operator, or Independent Transmission Provider) providing transmission service to the TDU to request project coordination. Affected Systems shall participate in the study and provide all information necessary to prepare the study.

3.5 Facilities Study

3.5.1 Once the required system impact study(s) is completed, a system impact study report shall be prepared and transmitted to the Interconnection Customer along with a facilities study agreement within five Business Days, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study. In the case where one or both impact studies are determined to be unnecessary, a notice of the fact shall be transmitted to the Interconnection Customer within the same timeframe.

3.5.2 In order to remain under consideration for interconnection, or, as appropriate, in the Transmission Provider's interconnection queue, the Interconnection Customer must return the executed facilities study agreement or a request for an extension of time within 30 Business Days.

3.5.3 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s).

3.5.4 Design for any required Interconnection Facilities and/or Upgrades shall be performed under the facilities study agreement. The Transmission Provider may contract with consultants to perform activities required under the facilities study agreement. The Interconnection Customer and the Transmission Provider may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the Transmission Provider, under the provisions of the facilities study agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the Transmission Provider shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.

3.5.5 A deposit of the good faith estimated costs for the facilities study may be required from the Interconnection Customer.

3.5.6 The scope of and cost responsibilities for the facilities study are described in the attached facilities study agreement.

3.5.7 Upon completion of the facilities study, and with the agreement of the Interconnection Customer to pay for Interconnection Facilities and Upgrades identified in the facilities study, the Transmission Provider shall provide the Interconnection Customer an executable interconnection agreement within five Business Days.

Section 4. Provisions that Apply to All Interconnection Requests

4.1 Reasonable Efforts

The Transmission Provider shall make reasonable efforts to meet all time frames provided in these procedures unless the Transmission Provider and the Interconnection Customer agree to a different schedule. If the Transmission Provider cannot meet a deadline provided herein, it shall notify the Interconnection Customer, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

4.2 Disputes

4.2.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.

4.2.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.

4.2.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.

4.2.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at http://www.ferc.gov/legal/adr.asp.

4.2.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.

4.2.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of these procedures.

4.3 Interconnection Metering

Any metering necessitated by the use of the Small Generating Facility shall be installed at the Interconnection Customer's expense in accordance with Federal Energy Regulatory Commission, state, or local regulatory requirements or the Transmission Provider's specifications.

4.4 Commissioning

Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards. The Transmission Provider must be given at least five Business Days written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests.

4.5. Confidentiality

4.5.1 Confidential information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of these procedures all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such.

4.5.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce these procedures. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under these procedures, or to fulfill legal or regulatory requirements.

4.5.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

4.5.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

4.5.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to these procedures, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party prior to the release of the Confidential Information to FERC. The Party shall notify the other Party when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

4.6 Comparability

The Transmission Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this document. The Transmission Provider shall use the same reasonable efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Small Generating Facility is owned or operated by the Transmission Provider, its subsidiaries or affiliates, or others.

4.7 Record Retention

The Transmission Provider shall maintain for three years records, subject to audit, of all Interconnection Requests received under these procedures, the times required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on the Interconnection Requests.

4.8 Interconnection Agreement

After receiving an interconnection agreement from the Transmission Provider, the Interconnection Customer shall have 30 Business Days or another mutually agreeable timeframe to sign and return the interconnection agreement, or request that the Transmission Provider file an unexecuted interconnection agreement with the Federal Energy Regulatory Commission. If the Interconnection Customer does not sign the interconnection agreement, or ask that it be filed unexecuted by the Transmission Provider within 30 Business Days, the Interconnection Request shall be deemed withdrawn. After the interconnection agreement is signed by the Parties, the interconnection of the Small Generating Facility shall proceed under the provisions of the interconnection agreement.

4.9 Coordination with Affected Systems

The Transmission Provider shall coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The Transmission Provider will include such Affected System operators in all meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the Transmission Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A Transmission Provider which may be an Affected System shall cooperate with the Transmission Provider with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

4.10 Capacity of the Small Generating Facility

4.10.1 If the Interconnection Request is for an increase in capacity for an existing Small Generating Facility, the Interconnection Request shall be evaluated on the basis of the new total capacity of the Small Generating Facility.

4.10.2 If the Interconnection Request is for a Small Generating Facility that includes multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of the aggregate capacity of the multiple devices.

4.10.3 The Interconnection Request shall be evaluated using the maximum capacity that the Small Generating Facility is capable of injecting into the Transmission Provider's electric system. However, if the maximum capacity that the Small Generating Facility is capable of injecting into the Transmission Provider's electric system is limited (e.g., through use of a control system, power relay(s), or other similar device settings or adjustments), then the Interconnection Customer must obtain the Transmission Provider's agreement, with such agreement not to be unreasonably withheld, that the manner in which the Interconnection Customer proposes to implement such a limit will not adversely affect the safety

and reliability of the Transmission Provider's system. If the Transmission Provider does not so agree, then the Interconnection Request must be withdrawn or revised to specify the maximum capacity that the Small Generating Facility is capable of injecting into the Transmission Provider's electric system without such limitations. Furthermore, nothing in this section shall prevent a Transmission Provider from considering an output higher than the limited output, if appropriate, when evaluating system protection impacts.

Section 5. EIM Requirements

The Interconnection Customer shall have a continuing duty to comply with Attachment Q of this Tariff as applicable.

Attachment 1

Glossary of Terms

10 kW Inverter Process - The procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW that uses the section 2 screens. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions. See SGIP Attachment 5.

Affected System - An electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Business Day - Monday through Friday, excluding Federal Holidays.

Distribution System - The Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

Distribution Upgrades - The additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Fast Track Process - The procedure for evaluating an Interconnection Request for a certified Small Generating Facility that meets the eligibility requirements of section 2.1 and includes the section 2 screens, customer options meeting, and optional supplemental review.

Good Utility Practice - Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Interconnection Customer - Any entity, including the Transmission Provider, the Transmission Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Transmission Provider's Transmission System.

Interconnection Facilities - The Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

Interconnection Request - The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Transmission Provider's Transmission System.

Material Modification - A modification that has a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Network Resource - Any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

Network Resource Interconnection Service - An Interconnection Service that allows the Interconnection Customer to integrate its Generating Facility with the Transmission Provider's System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Network Upgrades - Additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the Transmission Provider's Transmission System to accommodate the interconnection with the Small Generating Facility to the Transmission Provider's Transmission System. Network Upgrades do not include Distribution Upgrades.

Party or Parties - The Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Interconnection - The point where the Interconnection Facilities connect with the Transmission Provider's Transmission System.

Queue Position - The order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the Transmission Provider.

Small Generating Facility - The Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Study Process - The procedure for evaluating an Interconnection Request that includes the section 3 scoping meeting, feasibility study, system impact study, and facilities study.

Transmission Owner - The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

Transmission Provider - The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate

commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission System - The facilities owned, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service under the Tariff.

Upgrades - The required additions and modifications to the Transmission Provider's Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

Attachment 2

SMALL GENERATOR INTERCONNECTION REQUEST
(Application Form)

Transmission Provider:_____

Designated Contact Person:_____

Address: _____

Telephone Number: _____

Fax: _____

E-Mail Address: _____

An Interconnection Request is considered complete when it provides all applicable and correct information required below. Per SGIP section 1.5, documentation of site control must be submitted with the Interconnection Request.

Preamble and Instructions

An Interconnection Customer who requests a Federal Energy Regulatory Commission jurisdictional interconnection must submit this Interconnection Request by hand delivery, mail, e-mail, or fax to the Transmission Provider.

Processing Fee or Deposit:

If the Interconnection Request is submitted under the Fast Track Process, the non-refundable processing fee is $500.

If the Interconnection Request is submitted under the Study Process, whether a new submission or an Interconnection Request that did not pass the Fast Track Process, the Interconnection Customer shall submit to the Transmission Provider a deposit not to exceed $1,000 towards the cost of the feasibility study.

Interconnection Customer Information

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: _____

Contact Person: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Facility Location (if different from above): _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Alternative Contact Information (if different from the Interconnection Customer)

Contact Name: _____

Title: _____

Address: _____

_____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Application is for: _____New Small Generating Facility
_____Capacity addition to Existing Small Generating Facility

If capacity addition to existing facility, please describe: _____

_____

Will the Small Generating Facility be used for any of the following?

Net Metering?	Yes ___No ___
To Supply Power to the Interconnection Customer?	Yes ___No ___
To Supply Power to Others?	Yes ___No ___

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

_____ _____

(Local Electric Service Provider*) (Existing Account Number*)

[*To be provided by the Interconnection Customer if the local electric service provider is different from the Transmission Provider]

Contact Name: _____

Title: _____

Address: _____

_____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Requested Point of Interconnection: _____

Interconnection Customer's Requested In-Service Date: _____

Small Generating Facility Information
Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source: ___ Solar ___ Wind ___ Hydro ___ Hydro Type (e.g. Run-of-River):_____
Diesel ___ Natural Gas ___ Fuel Oil ___ Other (state type)
_____

Prime Mover: ___Fuel Cell ___Recip Engine ___Gas Turb ___Steam Turb
___Microturbine ___PV ___Other

Type of Generator: ____Synchronous ____Induction ____ Inverter

Generator Nameplate Rating: _____kW (Typical) Generator Nameplate kVAR: _____

Interconnection Customer or Customer-Site Load: _____kW (if none, so state)

Typical Reactive Load (if known): _____

Maximum Physical Export Capability Requested: _____ kW

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package? ____Yes ____No

Generator (or solar collector)
Manufacturer, Model Name & Number: _____
Version Number: _____

Nameplate Output Power Rating in kW: (Summer) _____ (Winter) _____
Nameplate Output Power Rating in kVA: (Summer) _____ (Winter) _____

Individual Generator Power Factor
Rated Power Factor: Leading: _____Lagging: _____

Total Number of Generators in wind farm to be interconnected pursuant to this

Interconnection Request: _____ Elevation: _____ ___Single phase ___Three phase

Inverter Manufacturer, Model Name & Number (if used):
_____

List of adjustable set points for the protective equipment or software:
_____

Note: A completed Power Systems Load Flow data sheet must be supplied with the Interconnection Request.

Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: _____ Instantaneous ___ or RMS? _____

Harmonics Characteristics: _____

Start-up requirements: _____

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: _____
(*) Neutral Grounding Resistor (If Applicable): _____

Synchronous Generators:

Direct Axis Synchronous Reactance, Xd: _____ P.U.
Direct Axis Transient Reactance, X'_d: _____P.U.
Direct Axis Subtransient Reactance, X''_d: _____P.U.
Negative Sequence Reactance, X_2: _____ P.U.
Zero Sequence Reactance, X_0: _____ P.U.
KVA Base: _____
Field Volts: _____
Field Amperes: _____

Induction Generators:

Motoring Power (kW): _____
I_2^2t or K (Heating Time Constant): _____
Rotor Resistance, Rr: _____
Stator Resistance, Rs: _____
Stator Reactance, Xs: _____
Rotor Reactance, Xr: _____
Magnetizing Reactance, Xm: _____
Short Circuit Reactance, Xd": _____
Exciting Current: _____
Temperature Rise: _____

Frame Size: _____
Design Letter: _____
Reactive Power Required In Vars (No Load): _____
Reactive Power Required In Vars (Full Load): _____
Total Rotating Inertia, H: _____ Per Unit on kVA Base

Note: Please contact the Transmission Provider prior to submitting the Interconnection Request to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

Interconnection Facilities Information

Will a transformer be used between the generator and the point of common coupling? ___Yes ___No

Will the transformer be provided by the Interconnection Customer? ____Yes ____No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: ____single phase _____three phase? Size: _____kVA
Transformer Impedance: _____% on _____kVA Base

If Three Phase:
Transformer Primary: _____ Volts _____ Delta _____Wye _____ Wye Grounded
Transformer Secondary: _____ Volts _____ Delta _____Wye _____ Wye Grounded
Transformer Tertiary: _____ Volts _____ Delta _____Wye _____ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: _____ Type: _____ Size: _____Speed: _____

Interconnecting Circuit Breaker (if applicable):

Manufacturer: _____ Type: _____
Load Rating (Amps): _____ Interrupting Rating (Amps): _____ Trip Speed (Cycles): _____

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: _____
Type: _____ Accuracy Class: ___ Proposed Ratio Connection: ____

Manufacturer: _____
Type: _____ Accuracy Class: ___ Proposed Ratio Connection: ____

Potential Transformer Data (If Applicable):

Manufacturer: _____
Type: _____ Accuracy Class: ___ Proposed Ratio Connection: ____

Manufacturer: _____
Type: _____ Accuracy Class: ___ Proposed Ratio Connection: ____

General Information

Enclose copy of site electrical one-line diagram showing the configuration of all Small Generating Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the

Small Generating Facility is larger than 50 kW. Is One-Line Diagram Enclosed? ____Yes ____No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Small Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address)

_____

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed? ___Yes ____No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).
Are Schematic Drawings Enclosed? ___Yes ____No

Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

For Interconnection Customer: _____Date: _____

Attachment 3

Certification Codes and Standards

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems

NFPA 70 (2002), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms
NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

Attachment 4

Certification of Small Generator Equipment Packages

1.0 Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Attachment 3, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.

2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.

3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.

4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.

5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.

6.0 An equipment package does not include equipment provided by the utility.

7.0 Any equipment package approved and listed in a state by that state's regulatory body for interconnected operation in that state prior to the effective date of these small generator interconnection procedures shall be considered certified under these procedures for use in that state.

Attachment 5

Application, Procedures, and Terms and Conditions for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW ("10 kW Inverter Process")

1.0 The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the Transmission Provider ("Company").

2.0 The Company acknowledges to the Customer receipt of the Application within three Business Days of receipt.

3.0 The Company evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.

4.0 The Company verifies that the Small Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process in the Small Generator Interconnection Procedures (SGIP). The Company has 15 Business Days to complete this process. Unless the Company determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the Company approves the Application and returns it to the Customer. Note to Customer: Please check with the Company before submitting the Application if disconnection equipment is required.

5.0 After installation, the Customer returns the Certificate of Completion to the Company. Prior to parallel operation, the Company may inspect the Small Generating Facility for compliance with standards which may include a witness test, and may schedule appropriate metering replacement, if necessary.

6.0 The Company notifies the Customer in writing that interconnection of the Small Generating Facility is authorized. If the witness test is not satisfactory, the Company has the right to disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a witness test has been performed, or previously waived on the Application. The Company is obligated to complete this witness test within ten Business Days of the receipt of the Certificate of Completion. If the Company does not inspect within ten Business Days or by mutual agreement of the Parties, the witness test is deemed waived.

7.0 Contact Information – The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the Company, that contact information must be provided on the Application.

8.0 Ownership Information – Enter the legal names of the owner(s) of the Small Generating Facility. Include the percentage ownership (if any) by any utility or public utility holding company, or by any entity owned by either.

9.0 UL1741 Listed – This standard ("Inverters, Converters, and Controllers for Use in Independent Power Systems") addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a

Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL1741. This "listing" is then marked on the equipment and supporting documentation.

Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW

This Application is considered complete when it provides all applicable and correct information required below. Per SGIP section 1.5, documentation of site control must be submitted with the Interconnection Request. Additional information to evaluate the Application may be required.

Processing Fee

A non-refundable processing fee of $100 must accompany this Application.

Interconnection Customer

Name: _____

Contact Person: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

Contact (if different from Interconnection Customer)

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

Owner of the facility (include % ownership by any electric utility): _____

Small Generating Facility Information

Location (if different from above): _____

Electric Service Company: _____

Account Number: _____

Inverter Manufacturer:_____Model_____

Nameplate Rating: _____ (kW) _____ (kVA) _____ (AC Volts)

Single Phase _____ Three Phase_____

System Design Capacity: _____ (kW) _____ (kVA)

Prime Mover: Photovoltaic ☐ Reciprocating Engine ☐ Fuel Cell ☐

Turbine ☐ Other _____

Energy Source: Solar ☐ Wind ☐ Hydro ☐ Diesel ☐ Natural Gas ☐

Fuel Oil ☐ Other (describe) _____

Is the equipment UL1741 Listed? Yes_____ No ___

If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: _____ Estimated In-Service Date: _____

The 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Attachments 3 and 4 of the Small Generator Interconnection Procedures (SGIP), or the Transmission Provider has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Interconnection Customer Signature

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return the Certificate of Completion when the Small Generating Facility has been installed.

Signed: _____

Title: _____ Date: _____

Contingent Approval to Interconnect the Small Generating Facility (For Company use only)

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Company Signature: _____

Title: _____ Date: _____

Application ID number: _____

Company waives inspection/witness test? Yes___No___

Small Generating Facility Certificate of Completion

Is the Small Generating Facility owner-installed? Yes_____ No _____

Interconnection Customer:

_____

Contact Person:_____

Address: _____

Location of the Small Generating Facility (if different from above):

_____

_____

City: _____ State: _____ Zip Code: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

Electrician:

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

License number: _____

Date Approval to Install Facility granted by the Company: _____

Application ID number: _____

Inspection:

The Small Generating Facility has been installed and inspected in compliance with the local building/electrical code of _____

Signed (Local electrical wiring inspector, or attach signed electrical inspection):

_____

Print Name: _____

Date: _____

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert Company information below):

Name: _____

Company: _____

Address:_____

_____

City, State ZIP: _____

Fax: _____

Approval to Energize the Small Generating Facility (For Company use only)

Energizing the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW

Company Signature: _____

Title: _____ Date: _____

Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW

1.0 **Construction of the Facility**

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Small Generating Facility when the Transmission Provider (the "Company") approves the Interconnection Request (the "Application") and returns it to the Customer.

2.0 **Interconnection and Operation**

The Customer may operate Small Generating Facility and interconnect with the Company's electric system once all of the following have occurred:

2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and

2.2 The Customer returns the Certificate of Completion to the Company, and

2.3 The Company has either:

2.3.1 Completed its inspection of the Small Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written statement that the Small Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or

2.3.2 If the Company does not schedule an inspection of the Small Generating Facility within ten business days after receiving the Certificate of Completion, the witness test is deemed waived (unless the Parties agree otherwise); or

2.3.3 The Company waives the right to inspect the Small Generating Facility.

2.4 The Company has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.

2.5 Revenue quality metering equipment must be installed and tested in accordance with applicable ANSI standards.

3.0 **Safe Operations and Maintenance**

The Customer shall be fully responsible to operate, maintain, and repair the Small Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

4.0 **Access**

The Company shall have access to the disconnect switch (if the disconnect switch is required) and metering equipment of the Small Generating Facility at all times. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

5.0 **Disconnection**

The Company may temporarily disconnect the Small Generating Facility upon the following conditions:

5.1 For scheduled outages upon reasonable notice.

5.2 For unscheduled outages or emergency conditions.

5.3 If the Small Generating Facility does not operate in the manner consistent with these Terms and Conditions.

5.4 The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

6.0 **Indemnification**

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7. 0 **Insurance**

The Parties agree to follow all applicable insureance requirements imposed by the state in which the Point of Interconnection is located. All insurance policies must be maintained with insurers authorized to do business in that state.

8.0 **Limitation of Liability**

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

9.0 **Termination**

The agreement to operate in parallel may be terminated under the following conditions:

9.1 **By the Customer**

By providing written notice to the Company.

9.2 **By the Company**

If the Small Generating Facility fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.

9.3 **Permanent Disconnection**

In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Small Generating Facility.

9.4 **Survival Rights**

This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

10.0 **Assignment/Transfer of Ownership of the Facility**

This Agreement shall survive the transfer of ownership of the Small Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

Attachment 6

Feasibility Study Agreement

THIS AGREEMENT is made and entered into this_____day of_____ 20___ by and between_____, a_____organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____, a_____ existing under the laws of the State of_____, ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by Interconnection Customer on_____; and

WHEREAS, Interconnection Customer desires to interconnect the Small Generating Facility with the Transmission Provider's Transmission System; and

WHEREAS, Interconnection Customer has requested the Transmission Provider to perform a feasibility study to assess the feasibility of interconnecting the proposed Small Generating Facility with the Transmission Provider's Transmission System, and of any Affected Systems;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.

2.0 The Interconnection Customer elects and the Transmission Provider shall cause to be performed an interconnection feasibility study consistent the standard Small Generator Interconnection Procedures in accordance with the Open Access Transmission Tariff.

3.0 The scope of the feasibility study shall be subject to the assumptions set forth in Attachment A to this Agreement.

4.0 The feasibility study shall be based on the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the scoping meeting. The Transmission Provider reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the feasibility study and as designated in accordance with the standard Small Generator Interconnection Procedures. If the Interconnection Customer modifies its Interconnection Request, the time to complete the feasibility study may be extended by agreement of the Parties.

5.0 In performing the study, the Transmission Provider shall rely, to the extent reasonably practicable, on existing studies of recent vintage. The Interconnection Customer shall not be charged for such existing studies; however, the Interconnection Customer shall be responsible for charges associated with any new study or modifications to existing studies that are reasonably necessary to perform the feasibility study.

6.0 The feasibility study report shall provide the following analyses for the purpose of identifying any potential adverse system impacts that would result from the interconnection of the Small Generating Facility as proposed:

6.1 Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;

6.2 Initial identification of any thermal overload or voltage limit violations resulting from the interconnection;

6.3 Initial review of grounding requirements and electric system protection; and

6.4 Description and non-binding estimated cost of facilities required to interconnect the proposed Small Generating Facility and to address the identified short circuit and power flow issues.

7.0 The feasibility study shall model the impact of the Small Generating Facility regardless of purpose in order to avoid the further expense and interruption of operation for reexamination of feasibility and impacts if the Interconnection Customer later changes the purpose for which the Small Generating Facility is being installed.

8.0 The study shall include the feasibility of any interconnection at a proposed project site where there could be multiple potential Points of Interconnection, as requested by the Interconnection Customer and at the Interconnection Customer's cost.

9.0 A deposit of the lesser of 50 percent of good faith estimated feasibility study costs or earnest money of $1,000 may be required from the Interconnection Customer.

10.0 Once the feasibility study is completed, a feasibility study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the feasibility study must be completed and the feasibility study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a feasibility study.

11.0 Any study fees shall be based on the Transmission Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.

12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Transmission Provider shall refund such excess within 30 calendar days of the invoice without interest.

13.0 <u>Governing Law, Regulatory Authority, and Rules</u>

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of _____ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

14.0 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

15.0 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

16.0 Waiver

16.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

16.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

17.0 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

18.0 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

19.0 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

20.0 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

20.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

20.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

21.0 Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider]	**[Insert name of Interconnection Customer]**
_____	_____
Signed_____	Signed_____
Name (Printed):	Name (Printed):
_____	_____

Title_____ Title_____

Attachment A to
Feasibility Study Agreement

Assumptions Used in Conducting the Feasibility Study

The feasibility study will be based upon the information set forth in the Interconnection Request and agreed upon in the scoping meeting held on _____:

1) Designation of Point of Interconnection and configuration to be studied.

2) Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the Transmission Provider.

Attachment 7

System Impact Study Agreement

THIS AGREEMENT is made and entered into this_____day of_____
20___ by and between_____,
a_____organized and existing under the laws of the State of
_____, ("Interconnection Customer,") and
_____, a_____
existing under the laws of the State of_____,
("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, the Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on_____; and

WHEREAS, the Interconnection Customer desires to interconnect the Small Generating Facility with the Transmission Provider's Transmission System;

WHEREAS, the Transmission Provider has completed a feasibility study and provided the results of said study to the Interconnection Customer (This recital to be omitted if the Parties have agreed to forego the feasibility study.); and

WHEREAS, the Interconnection Customer has requested the Transmission Provider to perform a system impact study(s) to assess the impact of interconnecting the Small Generating Facility with the Transmission Provider's Transmission System, and of any Affected Systems;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.

2.0 The Interconnection Customer elects and the Transmission Provider shall cause to be performed a system impact study(s) consistent with the standard Small Generator Interconnection Procedures in accordance with the Open Access Transmission Tariff.

3.0 The scope of a system impact study shall be subject to the assumptions set forth in Attachment A to this Agreement.

4.0 A system impact study will be based upon the results of the feasibility study and the technical information provided by Interconnection Customer in the Interconnection Request. The Transmission Provider reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the system impact study. If the Interconnection Customer modifies

its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the system impact study may be extended.

5.0 A system impact study shall consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews, as necessary. A system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. A system impact study shall provide a list of facilities that are required as a result of the Interconnection Request and non-binding good faith estimates of cost responsibility and time to construct.

6.0 A distribution system impact study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.

7.0 Affected Systems may participate in the preparation of a system impact study, with a division of costs among such entities as they may agree. All Affected Systems shall be afforded an opportunity to review and comment upon a system impact study that covers potential adverse system impacts on their electric systems, and the Transmission Provider has 20 additional Business Days to complete a system impact study requiring review by Affected Systems.

8.0 If the Transmission Provider uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the system impact study shall consider all generating facilities (and with respect to paragraph 8.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the system impact study is commenced –

8.1 Are directly interconnected with the Transmission Provider's electric system; or

8.2 Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and

8.3 Have a pending higher queued Interconnection Request to interconnect with the Transmission Provider's electric system.

9.0 A distribution system impact study, if required, shall be completed and the results transmitted to the Interconnection Customer within 30 Business Days after this Agreement is signed by the Parties. A transmission system impact study, if required, shall be completed and the results transmitted to the Interconnection Customer within 45 Business Days after this Agreement is signed by the Parties, or in accordance with the Transmission Provider's queuing procedures.

10.0 A deposit of the equivalent of the good faith estimated cost of a distribution system impact study and the one half the good faith estimated cost of a transmission system impact study may be required from the Interconnection Customer.

11.0 Any study fees shall be based on the Transmission Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.

12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Transmission Provider shall refund such excess within 30 calendar days of the invoice without interest.

13.0 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of _____ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

14.0 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

15.0 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

16.0 Waiver

16.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

16.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

17.0 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

18.0 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

19.0 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

20.0 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

20.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

20.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

21.0 Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider] **[Insert name of Interconnection Customer]**

_____ _____

Signed_____	Signed_____
Name (Printed):	Name (Printed):
_____	_____
Title_____	Title_____

Attachment A to System Impact Study Agreement

Assumptions Used in Conducting the System Impact Study

The system impact study shall be based upon the results of the feasibility study, subject to any modifications in accordance with the standard Small Generator Interconnection Procedures, and the following assumptions:

1) Designation of Point of Interconnection and configuration to be studied.

2) Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the Transmission Provider.

Attachment 8

Facilities Study Agreement

THIS AGREEMENT is made and entered into this_____day of_____
20___ by and between_____,
a_____organized and existing under the laws of the State of
_____, ("Interconnection Customer,") and
_____, a_____
existing under the laws of the State of_____,
("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, the Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on_____; and

WHEREAS, the Interconnection Customer desires to interconnect the Small Generating Facility with the Transmission Provider's Transmission System;

WHEREAS, the Transmission Provider has completed a system impact study and provided the results of said study to the Interconnection Customer; and

WHEREAS, the Interconnection Customer has requested the Transmission Provider to perform a facilities study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the system impact study in accordance with Good Utility Practice to physically and electrically connect the Small Generating Facility with the Transmission Provider's Transmission System.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.

2.0 The Interconnection Customer elects and the Transmission Provider shall cause a facilities study consistent with the standard Small Generator Interconnection Procedures to be performed in accordance with the Open Access Transmission Tariff.

3.0 The scope of the facilities study shall be subject to data provided in Attachment A to this Agreement.

4.0 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s). The facilities study shall also identify (1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (2) the nature and estimated cost of the Transmission Provider's

Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and (3) an estimate of the time required to complete the construction and installation of such facilities.

5.0 The Transmission Provider may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Small Generating Facility if it is willing to pay the costs of those facilities.

6.0 A deposit of the good faith estimated facilities study costs may be required from the Interconnection Customer.

7.0 In cases where Upgrades are required, the facilities study must be completed within 45 Business Days of the receipt of this Agreement. In cases where no Upgrades are necessary, and the required facilities are limited to Interconnection Facilities, the facilities study must be completed within 30 Business Days.

8.0 Once the facilities study is completed, a draft facilities study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the facilities study must be completed and the draft facilities study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a facilities study.

9.0 Interconnection Customer may, within 30 Calendar Days after receipt of the draft report, provide written comments to Transmission Provider, which Transmission Provider shall include in the final report. Transmission Provider shall issue the final Interconnection Facilities Study report within 15 Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. Transmission Provider may reasonably extend such fifteen-day period upon notice to Interconnection Customer if Interconnection Customer's comments require Transmission Provider to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Report. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 4.5 of the standard Small Generator Interconnection Procedures.

10.0 Within ten Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study.

11.0 Any study fees shall be based on the Transmission Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.

12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Transmission Provider shall refund such excess within 30 calendar days of the invoice without interest.

13.0 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of _____ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all

Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

14.0 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

15.0 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

16.0 Waiver

16.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

16.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

17.0 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

18.0 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

19.0 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

20.0 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

20.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

20.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

21.0 Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider]	**[Insert name of Interconnection Customer]**
_____	_____
Signed_____	Signed_____
Name (Printed):	Name (Printed):
_____	_____
Title_____	Title_____

Attachment A to
Facilities Study Agreement

Data to Be Provided by the Interconnection Customer
with the Facilities Study Agreement

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

On the one-line diagram, indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

One set of metering is required for each generation connection to the new ring bus or existing Transmission Provider station. Number of generation connections: _____

Will an alternate source of auxiliary power be available during CT/PT maintenance?
Yes No _____

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes No _____
(Please indicate on the one-line diagram).

What type of control system or PLC will be located at the Small Generating Facility?

_____

_____

What protocol does the control system or PLC use?

_____

_____

Please provide a 7.5-minute quadrangle map of the site. Indicate the plant, station, transmission line, and property lines.

Physical dimensions of the proposed interconnection station:

_____

Bus length from generation to interconnection station:

_____

Line length from interconnection station to Transmission Provider's Transmission System.

_____

Tower number observed in the field. (Painted on tower leg)*:

_____

Number of third party easements required for transmission lines*:

_____

* To be completed in coordination with Transmission Provider.

Is the Small Generating Facility located in Transmission Provider's service area?

Yes _____ No _____ If No, please provide name of local provider:

_____

Please provide the following proposed schedule dates:

Begin Construction	Date:_____
Generator step-up transformers receive back feed power	Date:_____
Generation Testing	Date:_____
Commercial Operation	Date:_____

SMALL GENERATOR
INTERCONNECTION AGREEMENT (SGIA)

(For Generating Facilities No Larger Than 20 MW)

TABLE OF CONTENTS

This Interconnection Agreement ("Agreement") is made and entered into this _____ day of _____, 20__, by _____ ("Transmission Provider"), and _____ ("Interconnection Customer") each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties."

Transmission Provider Information

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

Interconnection Customer Information

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

Interconnection Customer Application No: _____

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

Article 1. Scope and Limitations of Agreement

1.1 This Agreement shall be used for all Interconnection Requests submitted under the Small Generator Interconnection Procedures (SGIP) except for those submitted under the 10 kW Inverter Process contained in SGIP Attachment 5.

1.2 This Agreement governs the terms and conditions under which the Interconnection Customer's Small Generating Facility will interconnect with, and operate in parallel with, the Transmission Provider's Transmission System.

1.3 This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable Transmission Provider.

1.4 Nothing in this Agreement is intended to affect any other agreement between the Transmission Provider and the Interconnection Customer.

1.5 Responsibilities of the Parties

1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.

1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, and in accordance with this Agreement, and with Good Utility Practice.

1.5.3 The Transmission Provider shall construct, operate, and maintain its Transmission System and Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.

1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Transmission Provider and any Affected Systems.

1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The

Transmission Provider and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Transmission Provider's Transmission System, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.

1.5.6 The Transmission Provider shall coordinate with all Affected Systems to support the interconnection.

1.5.7 The Interconnection Customer shall ensure "frequency ride through" capability and "voltage ride through" capability of its Small Generating Facility. The Interconnection Customer shall enable these capabilities such that its Small Generating Facility shall not disconnect automatically or instantaneously from the system or equipment of the Transmission Provider and any Affected Systems for a defined under-frequency or over-frequency condition, or an under-voltage or over-voltage condition, as tested pursuant to section 2.1 of this agreement. The defined conditions shall be in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The Small Generating Facility's protective equipment settings shall comply with the Transmission Provider's automatic load-shed program. The Transmission Provider shall review the protective equipment settings to confirm compliance with the automatic load-shed program. The term "ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority on a comparable basis. The term "frequency ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The term "voltage ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of under-voltage and over-voltage conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis.

1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the applicable control area, including, but not limited to; 1) the rules and procedures concerning the operation of generation set forth in the Tariff or by the applicable system operator(s) for the Transmission Provider's Transmission System and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement.

1.7 Metering

The Interconnection Customer shall be responsible for the Transmission Provider's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

1.8 Reactive Power

1.8.1 Power Factor Design Criteria

1.8.1.1 Synchronous Generation. The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all similarly situated synchronous generators in the control area on a comparable basis.

1.8.1.2 Non-Synchronous Generation. The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established a different power factor range that applies to all similarly situated non-synchronous generators in the control area on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet executed a Facilities Study Agreement as of the effective date of the Final Rule establishing this requirement (Order No. 827).

1.8.2 The Transmission Provider is required to pay the Interconnection Customer for reactive power that the Interconnection Customer provides or absorbs from the Small Generating Facility when the Transmission Provider requests the Interconnection Customer to operate its Small Generating Facility outside the range specified in article 1.8.1. In addition, if the Transmission Provider pays its own or affiliated generators for reactive power service within the specified range, it must also pay the Interconnection Customer.

1.8.3 Payments shall be in accordance with the Interconnection Customer's applicable rate schedule then in effect unless the provision of such service(s) is subject to a regional transmission organization or independent system operator FERC-approved rate schedule. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb reactive power under this Agreement, the Parties agree to expeditiously file such rate schedule and agree to support any request for waiver of the Commission's prior notice requirement in order to compensate the Interconnection Customer from the time service commenced.

1.9 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of this Agreement.

Article 2. Inspection, Testing, Authorization, and Right of Access

2.1 Equipment Testing and Inspection

2.1.1 The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Transmission Provider of such activities no fewer than five Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day. The Transmission Provider may, at its own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Transmission Provider a written test report when such testing and inspection is completed.

2.1.2 The Transmission Provider shall provide the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Transmission Provider of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Small Generating Facility.

2.2 Authorization Required Prior to Parallel Operation

2.2.1 The Transmission Provider shall use Reasonable Efforts to list applicable parallel operation requirements in Attachment 5 of this Agreement. Additionally, the Transmission Provider shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Transmission Provider shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.

2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the Transmission Provider's Transmission System without prior written authorization of the Transmission Provider. The Transmission Provider will provide such authorization once the Transmission Provider receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

2.3 Right of Access

2.3.1 Upon reasonable notice, the Transmission Provider may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Small Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Small Generating Facility (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Transmission Provider at least five Business Days

prior to conducting any on-site verification testing of the Small Generating Facility.

2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Transmission Provider shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

2.3.3 Each Party shall be responsible for its own costs associated with following this article.

Article 3. Effective Date, Term, Termination, and Disconnection

3.1 Effective Date

This Agreement shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by the FERC. The Transmission Provider shall promptly file this Agreement with the FERC upon execution, if required.

3.2 Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect for a period of ten years from the Effective Date or such other longer period as the Interconnection Customer may request and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with article 3.3 of this Agreement.

3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this Agreement (if required), which notice has been accepted for filing by FERC.

3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Transmission Provider 20 Business Days written notice.

3.3.2 Either Party may terminate this Agreement after Default pursuant to article 7.6.

3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the Transmission Provider's Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this SGIA or such non-terminating Party otherwise is responsible for these costs under this SGIA.

3.3.4 The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.3.5 The provisions of this article shall survive termination or expiration of this Agreement.

3.4 Temporary Disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

3.4.1 Emergency Conditions -- "Emergency Condition" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Transmission System, the Transmission Provider's Interconnection Facilities or the Transmission Systems of others to which the Transmission System is directly connected; or (3) that, in the case of the Interconnection Customer, is imminently

likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. Under Emergency Conditions, the Transmission Provider may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility. The Transmission Provider shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Small Generating Facility. The Interconnection Customer shall notify the Transmission Provider promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Transmission Provider's Transmission System or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2 Routine Maintenance, Construction, and Repair

The Transmission Provider may interrupt interconnection service or curtail the output of the Small Generating Facility and temporarily disconnect the Small Generating Facility from the Transmission Provider's Transmission System when necessary for routine maintenance, construction, and repairs on the Transmission Provider's Transmission System. The Transmission Provider shall provide the Interconnection Customer with five Business Days notice prior to such interruption. The Transmission Provider shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

3.4.3 Forced Outages

During any forced outage, the Transmission Provider may suspend interconnection service to effect immediate repairs on the Transmission Provider's Transmission System. The Transmission Provider shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Transmission Provider shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

3.4.4 Adverse Operating Effects

The Transmission Provider shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Small Generating Facility may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generating Facility could cause damage to the Transmission Provider's Transmission System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Transmission Provider may disconnect the Small Generating Facility. The Transmission Provider shall provide the Interconnection Customer with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

3.4.5 Modification of the Small Generating Facility

The Interconnection Customer must receive written authorization from the Transmission Provider before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the Transmission System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the Transmission Provider's prior written authorization, the latter shall have the right to temporarily disconnect the Small Generating Facility.

3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, and the Transmission Provider's Transmission System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Transmission Provider shall provide a best estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Transmission Provider.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Transmission Provider's Interconnection Facilities.

4.2 Distribution Upgrades

The Transmission Provider shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. If the Transmission Provider and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

Article 5. Cost Responsibility for Network Upgrades

5.1 Applicability

No portion of this article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades.

5.2 Network Upgrades

The Transmission Provider or the Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. If the Transmission Provider and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Transmission Provider elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer.

5.2.1 Repayment of Amounts Advanced for Network Upgrades

The Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to the Transmission Provider and Affected System operator, if any, for Network Upgrades, including any tax gross-up or other tax-related payments associated with the Network Upgrades, and not otherwise refunded to the Interconnection Customer, to be paid to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under the Transmission Provider's Tariff and Affected System's Tariff for transmission services with respect to the Small Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. The Interconnection Customer may assign such repayment rights to any person.

5.2.1.1 Notwithstanding the foregoing, the Interconnection Customer, the Transmission Provider, and any Affected System operators may adopt any alternative payment schedule that is mutually agreeable so long as the Transmission Provider and said Affected System operators take one of the following actions no later than five years from the Commercial Operation Date: (1) return to the Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that the Transmission Provider or Affected System operator will continue to provide payments to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the commercial operation date.

5.2.1.2 If the Small Generating Facility fails to achieve commercial operation, but it or another generating facility is later constructed and requires use of the Network Upgrades, the Transmission

Provider and Affected System operator shall at that time reimburse the Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the generating facility, if different, is responsible for identifying the entity to which reimbursement must be made.

5.3 Special Provisions for Affected Systems

Unless the Transmission Provider provides, under this Agreement, for the repayment of amounts advanced to any applicable Affected System operators for Network Upgrades, the Interconnection Customer and Affected System operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to Affected System operator as well as the repayment by Affected System operator.

5.4 Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Small Generating Facility.

Article 6. Billing, Payment, Milestones, and Financial Security

6.1 Billing and Payment Procedures and Final Accounting

6.1.1 The Transmission Provider shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties.

6.1.2 Within three months of completing the construction and installation of the Transmission Provider's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Transmission Provider shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Transmission Provider for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Transmission Provider shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Transmission Provider within 30 calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Transmission Provider shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

6.2 Milestones

The Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement. A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) requesting appropriate amendments to Attachment 4. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless it will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same milestone has previously been delayed, or (3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

6.3 Financial Security Arrangements

At least 20 Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Transmission Provider's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Transmission Provider, at the Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the Transmission Provider and is consistent with the Uniform Commercial Code of the jurisdiction where the Point of Interconnection is located. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Transmission Provider's Interconnection

Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Transmission Provider under this Agreement during its term. In addition:

6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Transmission Provider, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

6.3.2 The letter of credit or surety bond must be issued by a financial institution or insurer reasonably acceptable to the Transmission Provider and must specify a reasonable expiration date.

Article 7. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default

7.1 Assignment

This Agreement may be assigned by either Party upon 15 Business Days prior written notice and opportunity to object by the other Party; provided that:

7.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the Transmission Provider of any such assignment;

7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Transmission Provider, for collateral security purposes to aid in providing financing for the Small Generating Facility, provided that the Interconnection Customer will promptly notify the Transmission Provider of any such assignment.

7.1.3 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

7.2 Limitation of Liability

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

7.3 Indemnity

7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.

7.3.2 The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.3.3 If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice

and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

7.3.4 If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

7.3.5 Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

7.4 Consequential Damages

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

7.5 Force Majeure

7.5.1 As used in this article, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party’s control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing."

7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The

Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

7.6 Default

7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in article 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

7.6.2 If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

Article 8. Insurance

8.1 The Interconnection Customer shall, at its own expense, maintain in force general liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. The Interconnection Customer shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Transmission Provider, except that the Interconnection Customer shall show proof of insurance to the Transmission Provider no later than ten Business Days prior to the anticipated commercial operation date. An Interconnection Customer of sufficient credit-worthiness may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.

8.2 The Transmission Provider agrees to maintain general liability insurance or self-insurance consistent with the Transmission Provider's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Transmission Provider's liabilities undertaken pursuant to this Agreement.

8.3 The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

Article 9. Confidentiality

9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.

9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

9.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this Agreement prior to the release of the Confidential Information to FERC. The Party shall notify the other Party to this Agreement when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

Article 10. Disputes

10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.

10.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.

10.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.

10.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at http://www.ferc.gov/legal/adr.asp.

10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.

10.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

Article 11. Taxes

11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with FERC policy and Internal Revenue Service requirements.

11.2 Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect the Transmission Provider's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

Article 12. Miscellaneous

12.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of _____ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12.2 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties, or under article 12.12 of this Agreement.

12.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

12.4 Waiver

12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement

This Agreement, including all Attachments, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any

partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9 Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. FERC expects all Transmission Providers, market participants, and Interconnection Customers interconnected to electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

12.10 Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

12.11 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12 Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

Article 13. Notices

13.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national currier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Interconnection Customer:

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State:_____ Zip:_____
Phone: _____ Fax: _____

If to the Transmission Provider:

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State:_____ Zip:_____
Phone: _____ Fax: _____

13.2 Billing and Payment

Billings and payments shall be sent to the addresses set out below:

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State:_____ Zip:_____

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State:_____ Zip:_____

13.3 Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State:_____ Zip:_____
Phone: _____ Fax: _____

If to the Transmission Provider:

Transmission Provider: _____

Attention: _____
Address: _____
City: _____ State:_____ Zip:_____
Phone: _____ Fax: _____

13.4 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State:_____ Zip:_____
Phone: _____ Fax: _____

Transmission Provider's Operating Representative:

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State:_____ Zip:_____
Phone: _____ Fax: _____

13.5 Changes to the Notice Information

Either Party may change this information by giving five Business Days written notice prior to the effective date of the change.

Article 14. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For the Transmission Provider

Name: _____

Title: _____

Date: _____

For the Interconnection Customer

Name: _____

Title: _____

Date: _____

Attachment 1

Glossary of Terms

Affected System - An electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Applicable Laws and Regulations - All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Business Day - Monday through Friday, excluding Federal Holidays.

Default - The failure of a breaching Party to cure its breach under the Small Generator Interconnection Agreement.

Distribution System - The Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

Distribution Upgrades - The additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Good Utility Practice - Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority - Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Interconnection Provider, or any Affiliate thereof.

Interconnection Customer - Any entity, including the Transmission Provider, the Transmission Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Transmission Provider's Transmission System.

Interconnection Facilities - The Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection,

including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

Interconnection Request - The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Transmission Provider's Transmission System.

Material Modification - A modification that has a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Network Upgrades - Additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the Transmission Provider's Transmission System to accommodate the interconnection of the Small Generating Facility with the Transmission Provider's Transmission System. Network Upgrades do not include Distribution Upgrades.

Operating Requirements - Any operating and technical requirements that may be applicable due to Regional Transmission Organization, Independent System Operator, control area, or the Transmission Provider's requirements, including those set forth in the Small Generator Interconnection Agreement.

Party or Parties - The Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Interconnection - The point where the Interconnection Facilities connect with the Transmission Provider's Transmission System.

Reasonable Efforts - With respect to an action required to be attempted or taken by a Party under the Small Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Small Generating Facility - The Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Tariff - The Transmission Provider or Affected System's Tariff through which open access transmission service and Interconnection Service are offered, as filed with the FERC, and as amended or supplemented from time to time, or any successor tariff.

Transmission Owner - The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

Transmission Provider - The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission System - The facilities owned, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service under the Tariff.

Upgrades - The required additions and modifications to the Transmission Provider's Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

Attachment 2

Description and Costs of the Small Generating Facility, Interconnection Facilities, and Metering Equipment

Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer, the Transmission Provider, or the Transmission Owner. The Transmission Provider will provide a best estimate itemized cost, including overheads, of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment.

Attachment 3

One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrade

Attachment 4

Milestones

In-Service Date: _____

Critical milestones and responsibility as agreed to by the Parties:

	Milestone/Date	**Responsible Party**
(1)	_____	_____
(2)	_____	_____
(3)	_____	_____
(4)	_____	_____
(5)	_____	_____
(6)	_____	_____
(7)	_____	_____
(8)	_____	_____
(9)	_____	_____
(10)	_____	_____

Agreed to by:

For the Transmission Provider_____ Date_____

For the Transmission Owner (If Applicable) _____ Date_____

For the Interconnection Customer_____ Date_____

Attachment 5

Additional Operating Requirements for the Transmission Provider's Transmission System and Affected Systems Needed to Support the Interconnection Customer's Needs

The Transmission Provider shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the Transmission Provider's Transmission System.

Attachment 6

Transmission Provider's Description of its Upgrades and Best Estimate of Upgrade Costs

The Transmission Provider shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Transmission Provider shall functionalize Upgrade costs and annual expenses as either transmission or distribution related.

Attachment Q

EIM

Energy Imbalance Market

ATTACHMENT Q
Energy Imbalance Market

ATTACHMENT Q

Energy Imbalance Market

Section 1. General Provision - Purpose and Effective Date of Attachment Q

Attachment Q provides for Transmission Provider's participation as the APS EIM Entity in the EIM administered by the MO. Attachment Q shall be in effect upon its acceptance by the Commission, with the exceptions provided below. Attachment Q shall be in effect for as long as Transmission Provider participates in the EIM as an APS EIM Entity and until all final settlements are finalized resulting from such participation. Sections 4.1.2.1, 4.1.3, 4.1.4, 4.2.4, 5, 6 and 7 of this Attachment Q take effect no earlier than July 25, 2016 or seven (7) days prior to the start of parallel operations. Sections 4.1.5, 4.1.6, 8 and 10 of this Attachment Q take effect no earlier than October 1, 2016 or the implementation date of APS's participation in the EIM, whichever is later.

This Attachment Q shall apply to all Transmission Customers and Interconnection Customers, as applicable, with new and existing service agreements under Parts II, III, and IV of this Tariff, as well as all Transmission Customers with transmission agreements that pre-existed this Tariff and that expressly incorporate by reference the applicability of APS's Tariff generally and/or this Attachment Q specifically. To the extent an Interconnection Customer controls the output of a generator located in the APS EIM Entity's BAA, the APS EIM Entity may require the Interconnection Customer to comply with a requirement in this Attachment Q to the extent that the APS EIM Entity makes a determination that such Interconnection Customer is the more appropriate party to satisfy the requirements of Attachment Q than any Transmission Customer.

This Attachment Q shall work in concert with the provisions of the MO Tariff implementing the EIM to support operation of the EIM. To the extent that this Attachment Q is inconsistent with a provision in the remainder of this Tariff with regard to the APS EIM Entity's administration of the EIM, this Attachment Q shall prevail.

This Attachment Q governs the relationship between the APS EIM Entity and all Transmission Customers and Interconnection Customers subject to this Tariff. This Attachment Q does not establish privity between Transmission Customers and the MO or make a Transmission Customer subject to the MO Tariff. Any Transmission Customer duties and obligations related to the EIM are those identified in this Tariff, unless the Transmission Customer voluntarily elects to participate directly in the EIM as an APS EIM Participating Resource, in which case the MO Tariff provisions for EIM Participating Resources and EIM Participating Resource Scheduling Coordinators shall also apply.

Section 2. Election of Transmission Customers to Become APS EIM Participating Resources

The decision of a Transmission Customer to participate in the EIM with resources as APS EIM Participating Resources is voluntary. A Transmission Customer that chooses to have a resource become an APS EIM Participating Resource must satisfy the following:

(1) Meet the requirements specified in Section 3 of this Attachment Q and the APS EIM BP;

(2) Become, or retain status as, a MO-certified EIM Participating Resource Scheduling Coordinator; and

(3) Follow the application and certification process specified in this Attachment Q and the APS EIM BP posted on the Transmission Provider's OASIS.

Transmission Customers that own or control multiple resources may elect to have any or all of their resources be APS EIM Participating Resources. Any resources that the Transmission Customer does not elect to be APS EIM Participating Resources shall be treated as Non-Participating Resources for purposes of this Attachment Q.

Section 3. Eligibility to be an APS EIM Participating Resource

3.1 Resource – Transmission Rights

For generating resources to be eligible to be an APS EIM Participating Resource, the resource must be owned or controlled by a Transmission Customer that is electing to participate in EIM and must be (1) internal resources located within the metered boundaries of the APS's BAA or (2) external resources not physically located within the boundaries of APS's BAA.

For any resource (internal or external) to be eligible to become an APS EIM Participating Resource, the Transmission Customer that owns or controls the resource must have associated transmission rights on the APS Transmission System based on one of the following:

(1) The resource is a Designated Network Resource of a Network Customer and the Network Customer elects to participate in the EIM through its Network Integration Transmission Service Agreement; or

(2) The resource is associated with either (i) a Service Agreement for Firm Point-to-Point Transmission Service or (ii) an Umbrella Service Agreement for Non-Firm Point-to-Point Transmission Service, and such Transmission Customer elects to participate in the EIM.

3.2 Resources External to APS's BAA

3.2.1 Use of Pseudo-Ties

A generating resource may be an external resource eligible to participate in the EIM as an APS EIM Participating Resource if the Transmission Customer (1) implements and maintains a Pseudo-Tie into APS's BAA, consistent with APS's Business Practice posted on Transmission Provider's OASIS and applicable reliability standards, and (2) has arranged firm transmission over any third-party transmission systems to a APS BAA intertie boundary equal to the amount of energy that will be Dynamically Transferred through the Pseudo-Tie into APS's BAA, consistent with APS's Business Practice posted on Transmission Provider's OASIS, and (3) has secured transmission service rights consistent with Section 3.1 of this Attachment Q.

3.2.1.1 Pseudo-Tie Costs

Pseudo-Tie implementation costs shall be allocated in a manner consistent with the treatment of Network Upgrades and Direct Assignment Facilities to facilitate a Pseudo-Tie into APS's BAA.

3.2.2. Balancing Authority Area Resources

A generating resource may be an external resource eligible to participate in the EIM as an APS Participating Resource if the resource qualifies as a BAAR because it (1) is dynamically scheduled to the APS BAA, (2) is equipped to respond to signals from APS's Automatic Generation Control system and be fully dispatchable by APS, (3) has arranged firm transmission over any third-party transmission systems to a APS BAA intertie boundary equal to the amount of energy that will be dynamically scheduled into APS's BAA, and (4) has secured transmission service rights consistent with Section 3.1 of this Attachment Q.

3.3 Application and Certification of APS EIM Participating Resources

3.3.1 Application

To become an APS EIM Participating Resource, an applicant must submit a Completed Application, as set forth in the APS EIM BP, and shall provide a deposit of $1,500 for the APS EIM Entity to process the application. Upon completion of processing the application, the APS EIM Entity shall charge and the applicant shall pay the actual costs of the application processing. Any difference between the deposit and the actual costs of the application processing shall be paid by or refunded to the APS EIM Participating Resource applicant, as appropriate.

At the time of application, any APS EIM Participating Resource applicant must elect to perform the duties of either a CAISO Metered Entity or Scheduling Coordinator Metered Entity, consistent with the MO's requirements and additional technical requirements set forth in the APS EIM BP, as applicable.

3.3.2 Processing the Application

The APS EIM Entity shall make a determination as to whether to accept or reject the application within 45 days of receipt of the application. At minimum, the APS EIM Entity shall validate through the application that the APS EIM Participating Resource applicant has satisfied Section 3.1 and 3.2 of this Attachment Q, where applicable, and met minimum telemetry and metering requirements, as set forth in the MO's requirements and the APS EIM BP. Within 45 days of receipt of the application and in accordance with the process outlined in the APS EIM BP, the APS EIM Entity may request additional information and will attempt to resolve any minor deficiencies in the application with the Transmission Customer. The APS EIM Entity may extend the 45-day period to accommodate the resolution of minor deficiencies in the application in order to make a determination on an application.

If the APS EIM Entity approves the application, it shall send notification of approval to both the APS EIM Participating Resource applicant and the MO. The process by which the APS EIM Entity sends notification of approval shall be set forth in the APS EIM BP.

If the APS EIM Entity rejects the application, the APS EIM Entity shall send notification stating the grounds for rejection to the APS EIM Participating Resource applicant. Upon request, the APS EIM Entity may provide guidance to the applicant as to how the APS

EIM Participating Resource applicant may cure the grounds for the rejection. In the event that the APS EIM Entity has granted an extension of the 45-day period but the applicant has neither provided the additional requested information nor otherwise resolved identified deficiencies within six (6) months of the APS EIM Entity's initial receipt of the application, the application shall be deemed rejected by the APS EIM Entity.

If an application is rejected, the APS EIM Participating Resource applicant may resubmit its application at any time with a new processing fee deposit.

3.3.3 Certification Notice

Upon approval of an application and in accordance with the process specified in the APS EIM BP, certification by the APS EIM Entity of the APS EIM Participating Resource to participate in the EIM shall occur once the Transmission Customer has demonstrated and the MO has confirmed that the Transmission Customer has achieved the following:

(1) Met the MO's criteria to become an EIM Participating Resource and executed the MO's pro forma EIM Participating Resource Agreement;

(2) Qualified to become or retained the services of a MO-certified EIM Participating Resource Scheduling Coordinator;

(3) Met the necessary metering requirements of this Tariff and Section 29.10 of the MO Tariff, and the EIM Participating Resource Scheduling Coordinator has executed the MO's pro forma Meter Service Agreement for Scheduling Coordinators; and

(4) Met communication and data requirements of this Tariff and Section 29.6 of the MO Tariff; and has the ability to receive and implement Dispatch Instructions every five minutes from the MO.

Upon receiving notice from the MO of the completion of the enumerated requirements by the Transmission Customer, the APS EIM Entity shall provide notice to both the Transmission Customer with a APS EIM Participating Resource and the MO that the APS EIM Participating Resource is certified and therefore eligible to participate in the EIM. The process by which the APS EIM Entity certifies Transmission Customers with an APS EIM Participating Resource shall be set forth in the APS EIM BP.

3.3.4 Status of Resource Pending Certification

If the Transmission Customer (i) has submitted an application for a resource to be an APS EIM Participating Resource but the application has not been approved, or (ii) the resource has not yet been certified by the APS EIM Entity consistent with Section 3.3.3 of this Attachment Q, the resource shall be deemed to be an APS EIM Non-Participating Resource.

3.3.5 Notice and Obligation to Report a Change in Information

Each Transmission Customer with an APS EIM Participating Resource has an ongoing obligation to inform the APS EIM Entity of any changes to any of the information submitted as part of the application process under this Attachment Q. The APS EIM BP shall set forth the process and timing requirements for notifying the APS EIM Entity of such changes.

This information includes, but is not limited to the following:

(1) Any change in the APS EIM Participating Resource Scheduling Coordinator representing the resource;

(2) Any change in the ownership or control of the resource;

(3) Any change to the physical characteristics of the resource required to be reported to the MO in accordance with Section 29.4(e)(4)(D) of the MO Tariff; or

(4) If either the MO terminates the participation of the APS EIM Participating Resource in the EIM, or the Transmission Customer has terminated the APS EIM Participating Resource's participation in the EIM, that resource shall be considered to be an APS Non-Participating Resource for purposes of this Tariff, including Attachment Q.

Section 4. Roles and Responsibilities

4.1 Transmission Provider as the APS EIM Entity and the APS EIM Entity Scheduling Coordinator

4.1.1 Responsibilities

4.1.1.1 Identification of EIM Entity Scheduling Coordinator

The APS EIM Entity may serve as the APS EIM Entity Scheduling Coordinator or may retain a third-party to perform such role. If the APS EIM Entity is not the APS EIM Entity Scheduling Coordinator, the APS EIM Entity shall communicate to the APS EIM Entity Scheduling Coordinator the information required by the APS EIM Entity Scheduling Coordinator to fulfill its responsibilities in the EIM.

The APS EIM Entity Scheduling Coordinator shall coordinate and facilitate the EIM in accordance with the requirements of the MO Tariff. The APS EIM Entity Scheduling Coordinator must meet the certification requirements of the MO and enter into any necessary MO agreements.

4.1.1.2 Processing APS EIM Participating Resource Applications

The APS EIM Entity shall be responsible for processing applications of Transmission Customers seeking authorization to participate in the EIM with resources as APS EIM Participating Resources in accordance with Section 3.3 of this Attachment Q.

4.1.1.3 Determination of EIM Implementation Decisions for APS's BAA

The APS EIM Entity is solely responsible for making any decisions required by the MO of EIM Entities with respect to EIM participation. The APS EIM Entity has made the following determinations:

(1) Eligibility requirements: Eligibility requirements are set forth in Section 3 of Attachment Q.

(2) Load Aggregation Point: There shall be one LAP for APS. There shall be a load forecast prepared for the LAP.

(3) Load Forecast: The APS EIM Entity shall be permitted to use the MO load forecast, but shall retain the right to provide the load forecast to the MO in accordance with the MO Tariff.

(4) MO metering agreements: The APS EIM Entity and all Transmission Customers with APS EIM Participating Resources shall have the option to elect to be Scheduling Coordinator Metered Entities or CAISO Metered Entities in accordance with Section 29.10 of the MO Tariff. The APS EIM Entity shall be a Scheduling Coordinator Metered Entity on behalf of all Transmission Customers

with Non-Participating Resources in accordance with Section 29.10 of the MO Tariff.

4.1.1.4 APS EIM Business Practice

The APS EIM Entity shall establish and revise, as necessary, procedures to facilitate implementation and operation of the EIM through the APS EIM BP. The EIM BP shall be posted on the Transmission Provider's OASIS.

4.1.1.5 Determination to Take Corrective Actions or Permanently Terminate Participation in the EIM

The APS EIM Entity may take corrective actions in APS's BAA in accordance with the requirements of Section 10.3 of Attachment Q.

In addition, the APS EIM Entity, in its sole and absolute discretion, may permanently terminate its participation in the EIM by providing notice of termination to the MO pursuant to applicable agreements and by making a filing pursuant to Section 205 of the Federal Power Act to revise this Tariff consistent with the Commission's requirements.

4.1.2 Responsibilities of the APS EIM Entity to Provide Required Information

4.1.2.1 Provide Modeling Data to the MO

The APS EIM Entity shall provide the MO information associated with transmission facilities within APS's BAA, including, but not limited to, network constraints and associated limits that must be observed in APS's BAA network and interties with other BAAs.

4.1.2.2 Registration

The APS EIM Entity shall register all Non-Participating Resources with the MO. The APS EIM Entity may choose to obtain default energy bids from the MO for Non-Participating Resources that are BAARs. The APS EIM Entity shall update this information in accordance with the MO's requirements as revised information is received from Transmission Customers with APS Non-Participating Resources in accordance with Section 4.2.1.2 of this Attachment Q.

4.1.3 Day-to-Day EIM Operations

4.1.3.1 Submission of Transmission Customer Base Schedule, Forecast Data for APS Non-Participating Resources that are Variable Energy Resources, and Resource Plans

The APS EIM Entity is responsible for providing the data required by the MO in accordance with Section 29.34 of the MO Tariff, including but not limited to: (1) hourly

Transmission Customer Base Schedules; and (2) Forecast Data for Non-Participating Resources that are variable energy resources; and (3) Resource Plans.

4.1.3.2 Communication of Manual Dispatch Information

The APS EIM Entity shall inform the MO of a Manual Dispatch by providing reliability adjustment information for the affected resources in accordance with Section 29.34 of the MO Tariff.

4.1.3.3 Confirmation

The MO shall calculate, and the APS EIM Entity shall confirm, actual values for Dynamic Schedules reflecting EIM Transfers to the MO within 60 minutes after completion of the Operating Hour to ensure the e-Tag author will be able to update these values in accordance with WECC business practices through an update to the e-Tag.

4.1.3.4 Dispatch of EIM Available Balancing Capacity for a Non-Participating Resource

Upon notification by the MO, the APS EIM Entity shall notify the Non-Participating Resource of the Dispatch Operating Point for any EIM Available Balancing Capacity, from the Non-Participating Resource, except in circumstances in which the APS EIM Entity has reason not to follow the dispatch instruction.

4.1.4 Provision of Data

The APS EIM Entity shall submit load, resource, and Interchange data to the MO in accordance with the format and timeframes required in the MO Tariff on behalf of Transmission Customers with Non-Participating Resources, loads, and Interchange.

4.1.5 Settlement of MO Charges and Payments

The APS EIM Entity shall be responsible for financial settlement of all charges and payments allocated by the MO to the APS EIM Entity. The APS EIM Entity shall sub-allocate EIM charges and payments in accordance with Schedules 1, 4, and 10 of this Tariff or Section 8 of Attachment Q, as applicable.

4.1.6 Dispute Resolution with the MO

The APS EIM Entity shall manage dispute resolution with the MO for the APS EIM Entity settlement statements consistent with Section 29.13 of the MO Tariff, Section 12 of this Tariff, and the APS EIM BP. Transmission Customers with APS EIM Participating Resources shall manage dispute resolution with the MO for any settlement statements they receive directly from the MO.

4.2 Transmission Customer Responsibilities

The following must comply with the information requirements of this section: (1) Transmission Customers with an APS EIM Participating Resource; (2) Transmission Customers with a Non-Participating Resource; and (3) Transmission Customers with load within APS's BAA..

4.2.1 Initial Registration Data

4.2.1.1 Transmission Customers with an APS EIM Participating Resource

A Transmission Customer with an APS EIM Participating Resource shall provide the MO and the APS EIM Entity with data necessary to meet the requirements established by the MO to register all resources with the MO as required by Section 29.4(e)(4)(D) of the MO Tariff.

4.2.1.2 Transmission Customers with Non-Participating Resources

A Transmission Customer with Non-Participating Resources shall provide the APS EIM Entity with data necessary to meet the requirements established by the MO as required by Section 29.4(c)(4)(c) of the MO Tariff.

4.2.2 Responsibility to Update Required Data

4.2.2.1 Transmission Customers with an APS EIM Participating Resource

Each Transmission Customer with an APS EIM Participating Resource has an ongoing obligation to inform the MO and APS EIM Entity of any changes to any of the information submitted by the Transmission Customer pursuant to Section 4.2.1 of this Attachment Q that reflects changes in operating characteristics as required by Section 29.4(e)(4)(D) of the MO Tariff.. The APS EIM BP shall set forth the process and timing requirements of notifying the APS EIM Entity of such changes.

4.2.2.2 Transmission Customers with Non-Participating Resources

Each Transmission Customer with a Non-Participating Resource has an ongoing obligation to inform the APS EIM Entity of any changes to any of the information submitted by the Transmission Customer with a Non-Participating Resource pursuant to Section 4.2.1 of this Attachment Q and Section 29.4(c)(4)(C) of the MO Tariff. The APS EIM BP shall set forth the process and timing requirements of notifying the APS EIM Entity of such changes.

4.2.3 Outages

Transmission Customers with APS EIM Participating Resources and Transmission Customers with Non-Participating Resources shall be required to provide planned and unplanned outage information for their resources in accordance with Section 7 of this Attachment Q. The APS EIM BP shall set forth the outage information requirements for APS EIM Participating Resources and Non-Participating Resources.

4.2.4 Submission of Transmission Customer Base Schedule

4.2.4.1 Transmission Customers with an APS EIM Participating Resource or APS Non-Participating Resource in the APS BAA

A Transmission Customer with an APS EIM Participating Resource shall submit the Transmission Customer Base Schedule to the APS EIM Entity. This submission must include Forecast Data on all resources, Interchange, and Intrachange, and shall balance to the Transmission Customer's anticipated load, as applicable. If the Transmission Customer does not serve load within APS's BAA, submission of the Transmission Customer Base Schedule shall include Forecast Data on all resources, Interchange, and Intrachange and shall balance to the Transmission Customer's anticipated actual generation. The submissions shall be in the format and within the timing requirements established by the MO and the APS EIM Entity as required in Section 4.2.4.5 of this Attachment O and the APS EIM BP. These submissions shall be subject to the following additional requirements:

(1) For resources located in APS's BAA, the Transmission Customer shall provide Forecast Data from any resource whose output is significant enough to be continuously monitored for BAA operations as identified in APS EIM BP; and

(2) The submissions must be in the format and within the timing requirements established by the MO and the APS EIM Entity as required in Section 4.2.4.5 of this Attachment Q and the APS EIM BP.

If the MO does not provide information on bid ranges for APS EIM Participating Resources, each APS EIM Participating Resource Scheduling Coordinator shall provide to the APS EIM Entity the energy bid range data (without price information) of the respective resources it represents that are participating in the EIM.

If the MO does not provide Dispatch Operating Point data for APS EIM Participating Resources, each APS EIM Participating Resource Scheduling Coordinator shall provide the APS EIM Entity with Dispatch Operating Point data of the respective resources it represents that are participating in the EIM.

A Transmission Customer with a Non-Participating Resource that is a Variable Energy Resource shall submit (i) resource Forecast Data with hourly granularity and (ii) resource Forecast Data with 5-minute or 15-minute granularity.

A Transmission Customer with a Non-Participating Resource that is a Variable Energy Resource shall also provide, at minimum, a three-hour rolling forecast with 15-minute granularity, updated every 15 minutes, and may provide, in the alternative, a three-hour rolling forecast with 5-minute granularity, updated every 5 minutes, and in accordance with any additional procedures set forth in the APS EIM BP.

4.2.4.2 Alternative Methods for Transmission Customers with Non-Participating Resources that are Variable Energy Resources to Submit Resource Forecast Data

A Transmission Customer with a Non-Participating Resource that is a Variable Energy Resource submitting resource Forecast Data consistent with Section 4.2.4.1 may use any one of the following methods:

(1) The Transmission Customer may elect to self-supply the Forecast Data and provide such data to the APS EIM Entity, which shall be considered to be the basis for physical changes in the output of the resource communicated to the MO for purposes of settlement pursuant to Schedule 10 of this Tariff. The APS EIM BP will specify the manner in which Transmission Customers may self-supply Forecast Data; or

(2) The Transmission Customer may elect that the MO produce Forecast Data for the Variable Energy Resource, made available to the Transmission Customer in a manner consistent with Section 29.11(j)(1) of the MO Tariff, which shall be considered to be the basis for physical changes in the output of the resource communicated to the MO for purposes of settlement pursuant to Schedule 10 of this Tariff.

A Transmission Customer with a Non-Participating Resource that is a Variable Energy Resource must elect one of the above methods prior to commencement of the EIM or prior to such other date in accordance with the procedures set forth in the APS EIM BP. A Transmission Customer with a Non-Participating Resource that is a Variable Energy Resource may change its election by providing advance notice to the APS EIM Entity, in accordance with the procedures set forth in the APS EIM BP.

4.2.4.3 Transmission Customers with Load

As set forth in Sections 4.2.4 of this Attachment Q, a Transmission Customer is required to submit Forecast Data on all resources, Interchange, and Intrachange which balance to the Transmission Customer's anticipated load, as applicable.

For purposes of settling Energy Imbalance Service pursuant to Schedule 4 of this Tariff, the APS EIM Entity shall calculate the load component of the Transmission Customer Base Schedule as the resource Forecast Data net of its Interchange Forecast Data and net of its Intrachange Forecast Data, as applicable.

4.2.4.4 Transmission Customers Without Resources of Load in APS's BAA

A Transmission Customer which does not have any resources or load within APS's BAA shall submit a Transmission customer Base Schedule that includes Interchange and Intrachange Forecast Data to the APS EIM Entity.

4.2.4.5 Timing of Transmission Customer Base Schedules Submission

4.2.4.5.1 Preliminary Submission of Transmission Customer Base Schedules

Transmission Customers shall submit their initial Transmission Customer Base Schedules, 7 days prior to each Operating Day ("T-7 days"),. Transmission Customers may modify the proposed Transmission Customer Base Schedule at any time but shall submit at least one update by 10 a.m. (PPT) of the day before the Operating Day. `

4.2.4.5.2 Final Submissions of Transmission Customer Base Schedules

Transmission Customers shall submit proposed final Transmission Customer Base Schedules at any time but no later than 77 minutes prior to each Operating Hour ("T-77"). Transmission Customers may modify Transmission Customer Base Schedules up to and until 57 minutes prior to the Operating Hour ("T-57"). As of 55 minutes prior to each Operating Hour ("T-55"), the Base Schedule data for the Operating Hour will be considered financially binding and Transmission Customers may not submit further changes. If the Transmission Customer fails to enter a Forecast Data value, the default will be 0 MW for that Operating Hour.

4.2.5 Metering for Transmission Customers with Non-Participating Resources

To assess imbalance, the MO shall disaggregate meter data into 5-minute intervals if the meter intervals are not programmed to 5-minute intervals pursuant to a Transmission Customer's applicable interconnection requirements. To the extent that a Transmission Customer owns the meter or communication to the meter, the Transmission Customer shall be responsible to maintain accurate and timely data accessible for the APS EIM Entity to comply with Section 4.1.4 of this Attachment Q.

Section 5. Transmission Operations

5.1 Provision of Information Regarding Real-Time Status of the Transmission Provider's Transmission System

The APS EIM Entity shall provide the MO information on the following:

(1) Real time data for the Transmission System and interties; and

(2) Any changes to transmission capacity and the Transmission System due to operational circumstances.

5.2 Provision of EIM Transfer Capacity by an APS Interchange Rights Holder

The APS EIM Entity shall facilitate the provision of transmission capacity for EIM Transfers offered by an APS Interchange Rights Holder by providing the MO with information about the amounts made available by the APS Interchange Rights Holder for EIM Transfers.

The provision of EIM Transfer capacity shall be implemented through the APS Interchange Rights Holder's submission of an e-Tag by 75 minutes prior to the Operating Hour ("T-75"). The APS Interchange Rights Holder shall include on the e-Tag the OASIS identification reservation number(s) associated with the transmission rights made available for EIM Transfers and shall also include the MO, all transmission providers, and path operators associated with the OASIS identification reservation number(s) identified on the e-Tag. The APS Interchange Rights Holder's rights associated with the submitted e-Tag shall be available for the EIM, subject to approval of the e-Tag by all required e-Tag approval entities.

The amount made available for EIM Transfers shall never exceed the APS Interchange Rights Holder's transmission rights.

5.3 Provision of EIM Transfer Capacity by the APS EIM Entity

The APS EIM Entity shall facilitate the provision of transmission capacity for EIM Transfers by ensuring that the MO is provided with the amounts made available for EIM Transfers utilizing Available Transfer Capability ("ATC"). Such amounts shall be in addition to any amounts made available by APS Interchange Rights Holder pursuant to Section 5.2 of this Attachment Q.

The provision of EIM Transfer capacity corresponding to ATC shall be implemented by 40 minutes prior to the Operating Hour ("T-40") by the APS EIM Entity. The APS EIM Entity shall include an e-Tag with an OASIS identification reservation number(s) created for EIM Transfers utilizing ATC and shall also include the MO, all transmission providers, and path operators associated with the OASIS identification reservation number(s) identified on the e-Tag. The amount of ATC indicated on the e-Tag will be based upon the lower of the amount of ATC calculated by each EIM Entity at that

interface. The ATC shall be available for the EIM, subject to approval of the e-Tag by all required e-Tag approval entities.

Section 6. System Operations Under Normal and Emergency Conditions

6.1 Compliance with Reliability Standards

Participation in the EIM shall not modify, change, or otherwise alter the manner in which the Transmission Provider operates its Transmission System consistent with applicable reliability standards, including adjustments.

Participation in the EIM shall not modify, change, or otherwise alter the obligations of the APS EIM Entity, Transmission Customers with APS EIM Participating Resources, or Transmission Customers with Non-Participating Resources to comply with applicable reliability standards.

The APS EIM Entity shall remain responsible for the following:

(1) Maintaining appropriate operating reserves and for its obligations pursuant to any reserve sharing group agreements;

(2) NERC and WECC responsibilities including, but not limited to, informing the Reliability Coordinator of issues within APS's BAA;

(3) Processing e-Tags and managing schedule Curtailments at the interties; and

(4) Monitoring and managing real-time flows within system operating limits on all transmission facilities within APS's BAA, including facilities of APS BAA Transmission Owners. If requested by a Transmission Customer that is also an APS BAA Transmission Owner, the APS EIM Entity will provide additional information or data related to EIM operation as it may relate to facilities of an APS BAA Transmission Owner.

6.2 Good Utility Practice

The APS EIM Entity, Transmission Customers with Non-Participating Resources, and Transmission Customers with APS EIM Participating Resources shall comply with Good Utility Practice with respect to this Attachment Q.

6.3 Management of Contingencies and Emergencies

6.3.1 EIM Disruption

If the MO declares an EIM disruption in accordance with Section 29.7(j) of the MO Tariff, the APS EIM Entity shall, in accordance with Section 29.7(j)(4) of the MO Tariff, promptly inform the MO of actions taken in response to the EIM disruption by providing adjustment information, updates to e-Tags, transmission limit adjustments, or outage and de-rate information, as applicable.

6.3.2 Manual Dispatch

The APS EIM Entity may issue a Manual Dispatch order to a Transmission Customer with an APS EIM Participating Resource or a Non-Participating Resource in APS's BAA to address reliability or operational issues in APS's BAA that the MO, through operation of the EIM, is not able to address through normal economic dispatch and congestion management.

The APS EIM Entity shall inform the MO of a Manual Dispatch as soon as possible.

Section 7. Outages

7.1. APS EIM Entity Transmission Outages

7.1.1 Planned Transmission Outages and Known Derates

The APS EIM Entity shall submit information regarding planned transmission outages and known derates to the MO's outage management system in accordance with Section 29.9(b) of the MO Tariff. The APS EIM Entity shall update the submittal if there are changes to the transmission outage plan.

7.1.2 Unplanned Transmission Outages

The APS EIM Entity shall submit information as soon as possible regarding unplanned transmission outages or derates to the MO's outage management system in accordance with Section 29.9(e) of the MO Tariff.

7.2 APS BAA Transmission Owner Outages

Transmission Customers that are also APS BAA Transmission Owners shall provide the APS EIM Entity with planned and unplanned transmission outage data in accordance with the APS EIM BP. Planned outages shall be reported to the APS EIM Entity seven or more days in advance and preferably at least 30 days in advance of the outage. Unplanned outages shall be reported to the APS EIM Entity as soon as possible but no later than 30 minutes after the outage commences.

The APS EIM Entity shall communicate information regarding planned and unplanned outages of APS BAA Transmission Owner facilities to the MO as soon as practicable upon receipt of the information from the APS BAA Transmission Owner.

7.3 APS EIM Participating Resource Outages

7.3.1 Planned APS EIM Participating Resource Outages and Known Derates

APS EIM Participating Resource Scheduling Coordinators shall submit information regarding planned resource outages and known derates to the APS EIM Entity in the manner provided by the APS EIM BP. Planned outages and known derates shall be reported to the APS EIM Entity 7 or more days in advance and preferably at least 30 days in advance of the outage or known derate. The APS EIM Entity shall then submit this outage information to the MO's outage management system in accordance with Section 29.9(c) of the MO Tariff. APS EIM Participating Resource Scheduling Coordinators shall update the submittal as soon as reasonably practicable if there are changes to the resource outage plan or known derates.

7.3.2 Unplanned APS EIM Participating Resource Outages

In the event of an unplanned outage required to be reported under Section 29.9(e) of the MO Tariff, the APS EIM Participating Resource Scheduling Coordinator is responsible for notifying the APS EIM Entity of required changes. Unplanned outages shall be reported to the APS EIM Entity as soon as possible but no later than 30 minutes after the outage commences. The APS EIM Entity shall then submit this information to the MO's outage management system.

7.3.3 Unplanned APS EIM Participating Resource Derates

Changes in availability of 10 MW or 5% of Pmax (whichever is greater) lasting 15 minutes or longer must be reported to the APS EIM Entity. These reports are due within 30 minutes of discovery, and are required only to include effective time and MW availability. The APS EIM Entity shall then submit this information to the MO's outage management system.

7.4 Outages of Transmission Customers with Non-Participating Resources

7.4.1 Planned Outages and Known Derates of Transmission Customers with Non-Participating Resources

Transmission Customers with Non-Participating Resources shall report information regarding planned outages and known derates of resources to the APS EIM Entity in the manner provided by the APS EIM BP seven or more days in advance and preferably at least 30 days in advance of the outage. The Transmission Customer with a Non-Participating Resource shall update the submittal if there are changes to the resource's outage plan.

The APS EIM Entity shall submit planned resource outages and known derates of APS EIM Non-Participating Resources to the MO's outage management system in accordance Section 29.9(c) of the MO Tariff.

7.4.2 Unplanned Outages of Resources of Transmission Customers with Non-Participating Resources

Unplanned outages of resources of a Transmission Customer with Non-Participating Resources shall be reported to the APS EIM Entity as soon as possible but no later than 30 minutes after the outage commences.

In the event of a forced outage required to be reported under Section 29.9(e) of the MO Tariff, the APS EIM Entity is responsible for notifying the MO of required changes through the MO's outage management system.

7.4.3 Unplanned Derates of Resources of Transmission Customers with Non-Participating Resources

Changes in availability of 10 MW or 5% of Pmax (whichever is greater) lasting 15 minutes or longer must be reported to the APS EIM Entity. These reports are due within

30 minutes of discovery, and are required only to include effective time and MW availability. The APS EIM Entity shall then submit this information to the MO's outage management system.

Section 8. EIM Settlements and Billing

The APS EIM BP shall include information on the specific charge codes applicable to EIM settlement.

8.1 Instructed Imbalance Energy (IIE)

The APS EIM Entity shall be required to sub-allocate IIE that occurs because of (1) operational adjustments of any affected Interchange or Intrachange, which includes changes by Transmission Customers to Interchange after T-57, (2) resource imbalances created by Manual Dispatch or an EIM Available Balancing Capacity dispatch, or (3) an adjustment to resource imbalances created by adjustments to resource forecasts pursuant to Section 11.5 of the MO Tariff and using the Real Time Dispatch or FMM price at the applicable PNode. Any allocations to the APS EIM Entity pursuant to Section 29.11(b)(1) and (2) of the MO Tariff for IIE shall be sub-allocated directly to Transmission Customers.

8.2 Uninstructed Imbalance Energy (UIE)

Any charges or payments to the APS EIM Entity pursuant to Section 29.11(b)(3)(B) and (C) of the MO Tariff for UIE not otherwise recovered under Schedule 4 or Schedule 10 shall not be sub-allocated to Transmission Customers.

8.3 Unaccounted for Energy (UFE)

Any charges to the APS EIM Entity pursuant to Section 29.11(c) of the MO Tariff for UFE shall not be sub-allocated to Transmission Customers.

8.4 Charges for Under-Scheduling or Over-Scheduling Load

8.4.1 Under-Scheduling Load

Any charges to the APS EIM Entity pursuant to Section 29.11(d)(1) of the MO Tariff for under-scheduling load shall be assigned to the Transmission Customers subject to Schedule 4 based on each Transmission Customer's respective under-scheduling imbalance ratio share, which is the ratio of the Transmission Customer's under-scheduled load imbalance amount relative to all other Transmission Customers' under-scheduled load imbalance amounts who have under-scheduled load for the Operating Hour, expressed as a percentage.

8.4.2 Over-Scheduling Load

Any charges to the APS EIM Entity pursuant to Section 29.11(d)(2) of the MO Tariff for over-scheduling load shall be assigned to the Transmission Customers subject to Schedule 4 based on each Transmission Customer's respective over-scheduling imbalance ratio share, which is the ratio of the Transmission Customer's over-scheduled load imbalance amount relative to all other Transmission Customers' over-scheduled load

imbalance amounts who have over-scheduled load for the Operating Hour, expressed as a percentage.

8.4.3 Distribution of Under-Scheduling or Over-Scheduling Proceeds

Any payment to the APS EIM Entity pursuant to Section 29.11(d)(3) of the MO Tariff shall be distributed to Transmission Customers that were not subject to under-scheduling or over-scheduling charges on the basis of Metered Demand and in accordance with the procedures outlined in the APS EIM BP.

8.5 EIM Uplifts

8.5.1. EIM BAA Real-Time Market Neutrality (Real-Time Imbalance Energy Offset - BAA)

Any charges to the APS EIM Entity pursuant to Section 29.11(e)(3) of the MO Tariff for EIM BAA real-time market neutrality shall be sub-allocated to Transmission Customers on the basis of Measured Demand.

8.5.2 EIM Entity BAA Real-Time Congestion Offset

Any charges to the APS EIM Entity pursuant to Section 29.11(e)(2) of the MO Tariff for the EIM real-time congestion offset shall be allocated to Transmission Customers on the basis of Measured Demand.

8.5.3 EIM Entity Real-Time Marginal Cost of Losses Offset

Any charges to the APS EIM Entity pursuant to Section 29.11(e) (4) of the MO Tariff for real-time marginal cost of losses offset shall be sub-allocated to Transmission Customers and the basis of Measured Demand.

8.5.4 EIM Neutrality Settlement

Any charges to the APS EIM Entity pursuant to Section 29.11(e)(5) of the MO Tariff for EIM neutrality settlement shall be sub-allocated as follows:

Description	Allocation
Neutrality Adjustment (monthly and daily)	Measured Demand
Rounding Adjustment (monthly and daily)	Measured Demand

8.5.5 Real-Time Bid Cost Recovery

Any charges to the APS EIM Entity pursuant to Section 29.11(f) of the MO Tariff for EIM real-time BCR shall be sub-allocated to Transmission Customers on the basis of Measured Demand.

8.5.6 Flexible Ramping Product

Any charges or payments to the APS EIM Entity pursuant to Section 29.11(p) of the MO Tariff for the Flexible Ramping Product shall be sub-allocated to Transmission Customers on the basis as follows.

Description	Allocation
Flexible Ramping Forecasted Movement Resource Settlement	Measured Demand
Flexible Ramping Forecasted Movement Demand Allocation	Metered Demand
Daily Flexible Ramping Uncertainty Award (in both the upward and downward directions)	Measured Demand
Monthly Flexible Ramping Uncertainty Award (in both the upward and downward directions)	Measured Demand
Any other Flexible Ramping Product charges or payments	Measured Demand

8.5.7 Inaccurate or Late Actual Settlement Quality Meter Data Penalty

To the extent the APS EIM Entity incurs a penalty for inaccurate or late actual settlement quality meter data, pursuant to Section 37.11.1 of the MO Tariff, the APS EIM Entity shall directly assign the penalty to the offending Transmission Customer.

8.5.8 Other EIM Settlement Provisions

Any charges to the APS EIM Entity pursuant to the MO Tariff for the EIM settlement provisions shown in the following table shall be sub-allocated as follows:

Description	Allocation
Invoice Deviation (distribution and allocation)	APS EIM Entity

Generator Interconnection Process Forfeited Deposit Allocation	APS EIM Entity
Default Invoice Interest Payment	APS EIM Entity
Default Invoice Interest Charge	APS EIM Entity
Invoice Late Payment Penalty	APS EIM Entity
Financial Security Posting (Collateral) Late Payment Penalty	APS EIM Entity
Shortfall Receipt Distribution	APS EIM Entity
Shortfall Reversal	APS EIM Entity
Shortfall Allocation	APS EIM Entity
Default Loss Allocation	APS EIM Entity

8.6 MO Tax Liabilities

Any charges to the APS EIM Entity pursuant to Section 29.22(a) of the MO Tariff for MO tax liability as a result of the EIM shall be sub-allocated to those Transmission Customers triggering the tax liability.

8.7 EIM Transmission Service Charges

There shall be no incremental transmission charge assessed for transmission use related to the EIM.

Participating Resources and BAARs will not incur unreserved use charges solely as a result of EIM Dispatch Instruction.

8.8 Variable Energy Resource Forecast Charge

Any costs incurred by the APS EIM Entity related to the preparation and submission of resource Forecast Data for a Transmission Customer with a Non-Participating Resource electing method (1), as set forth in Section 4.2.4.2 of this Attachment Q, shall be allocated to the Transmission Customer with a Non-Participating Resource electing to use such method.

For a Transmission Customer with a Non-Participating Resource electing method (2), as set forth in Section 4.2.4.2 of this Attachment Q, any charges to the APS EIM Entity

pursuant to Section 29.11(j)(1) of the MO Tariff for variable energy resource forecast charges shall be sub-allocated to the Transmission Customer with a Non-Participating Resource requesting such forecast.

8.9 EIM Payment Calendar

Pursuant to Section 29.11(l) of the MO Tariff, the APS EIM Entity shall be subject to the MO's payment calendar for issuing settlement statements, exchanging invoice funds, submitting meter data, and submitting settlement disputes to the MO. The APS EIM Entity shall follow Section 7 of this Tariff for issuing invoices regarding the EIM.

8.10 EIM Residual Balancing Account

To the extent that the MO's EIM-related charges or payments to the APS EIM Entity are not captured elsewhere in Attachment Q, Schedules 1, 4, and 10 of this Tariff, or this Section 8, those charges or payments shall be placed in a balancing account, with interest accruing at the rate established in 18 C.F.R. § 35.19(a) (2) (iii), until APS makes a filing with the Commission pursuant to Section 205 of the Federal Power Act proposing an allocation methodology.

8.11 Market Validation and Price Correction

If the MO modifies the APS EIM Entity settlement statement in accordance with the MO's market validation and price correction procedures in the MO Tariff, the APS EIM Entity reserves the right to make corresponding or similar changes to the charges and payments sub-allocated under this Attachment Q.

8.12 Allocation of Operating Reserves

8.12.1 Payments and Charges.

Any payments and charges to the APS EIM Entity pursuant to Section 29.11(n)(1) and (2) of the MO Tariff for operating reserve obligations during Operating Hours during which EIM Transfers from the APS BAA to another BAA occurred shall not be sub-allocated to Transmission Customers.

Section 9. Compliance

9.1 Provision of Data

Transmission Customers with APS EIM Participating Resources and APS EIM Participating Resource Scheduling Coordinators are responsible for complying with information requests they receive directly from the MO market monitor or regulatory authorities concerning EIM activities.

A Transmission Customer with APS EIM Participating Resources or a Transmission Customer with Non-Participating Resources must provide the APS EIM Entity with all data necessary to respond to information requests received by the APS EIM Entity from the MO, the MO market monitor, or regulatory authorities concerning EIM activities.

If the APS EIM Entity is required by applicable laws or regulations, or in the course of administrative or judicial proceedings, to disclose information that is otherwise required to be maintained in confidence, the APS EIM Entity may disclose such information; provided, however, that upon the APS EIM Entity learning of the disclosure requirement and, if possible, prior to making such disclosure, the APS EIM Entity shall notify any affected party of the requirement and the terms thereof. The party can, at its sole discretion and own cost, direct any challenge to or defense against the disclosure requirement. The APS EIM Entity shall cooperate with the affected party to obtain proprietary or confidential treatment of confidential information by the person to whom such information is disclosed prior to any such disclosure.

The APS EIM Entity shall treat all Transmission Customer and Interconnection Customer data and information provided to it as market-sensitive and confidential, unless the APS EIM Entity is otherwise allowed or required to disclose. The APS EIM Entity shall continue to abide by the Standards of Conduct for Transmission Providers and other regulations of the Federal Energy Regulatory Commission governing non-public transmission information or customer-confidential information and handle customer information accordingly.

9.2 Rules of Conduct

These rules of conduct are intended to provide fair notice of the conduct expected and to provide an environment in which all parties may participate in the EIM on a fair and equal basis. Transmission Customers must:

(1) Comply with Dispatch Instructions and APS EIM Entity operating orders in accordance with Good Utility Practice. If some limitation prevents the Transmission Customer from fulfilling the action requested by the MO or the APS EIM Entity, the Transmission Customer must immediately and directly communicate the nature of any such limitation to the APS EIM Entity;

(2) Submit bids for resources that are reasonably expected to both be and remain available and capable of performing at the levels specified in the bid based on all information that is known or should have been known at the time of submission;

(3) Notify the MO and the APS EIM Entity of outages in accordance with Section 7 of this Attachment Q;

(4) Provide complete, accurate, and timely meter data to the APS EIM Entity in accordance with the metering and communication requirements of this Tariff, and maintain responsibility to ensure the accuracy of such data communicated by any customer-owned metering or communications systems. To the extent such information is not accurate or timely when provided to the APS EIM Entity, the Transmission Customer shall be responsible for any consequence on settlement and billing;

(5) Provide information to the APS EIM Entity, including the information requested in Sections 4.2.1, 4.2.2, 4.2.3, 4.2.4, and 9.1 of this Attachment Q, by the applicable deadlines; and

(6) Use commercially-reasonable efforts to ensure that forecasts are accurate and based on all information that is known or should have been known at the time of submission to the APS EIM Entity.

9.3 Enforcement

The APS EIM Entity may refer a violation of Section 9.2 of this Attachment Q to the Commission. Violations of these rules of conduct may be enforced by the Commission in accordance with the Commission's rules and procedures. Nothing in this Section 9 is meant to limit any other remedy before FERC or any applicable judicial, governmental, or administrative body.

Section 10. Market Contingencies

10.1 Temporary Suspension by the MO

In the event that the MO implements a temporary suspension in accordance with Section 29.1(d)(1) of the MO Tariff, including the actions identified in Section 29.1(d)(5), the APS EIM Entity shall use Temporary Schedules 4, 10 and 12 set forth in Sections 10.4.1, 10.4.2 and 10.4.3 of this Attachment Q until the temporary suspension is no longer in effect or, if the MO determines to extend the suspension, for a period of time sufficient to process termination of the APS EIM Entity's participation in the EIM in accordance with Section 29.1(d)(2) of the MO Tariff.

10.2 Termination of Participation in EIM by the APS EIM Entity

If the APS EIM Entity submits a notice of termination of its participation in the EIM to the MO in accordance with the applicable agreements and Section 4.1.1.5 of this Attachment Q, in order to mitigate price exposure during the 180-day period between submission of the notice and the termination effective date, the APS EIM Entity may invoke the following corrective actions by requesting that the MO:

(1) Prevent EIM Transfers and separate the APS EIM Entity's BAA from operation of the EIM in the EIM Area; and

(2) Suspend settlement of EIM charges with respect to the APS EIM Entity.

Once such corrective actions are implemented by the MO, the APS EIM Entity shall use Temporary Schedules 4, 10 and 12 set forth in Sections 10.4.1, 10.4.2 and 10.4.3 of this Attachment Q.

If the APS EIM Entity takes action under this Section 10.2, the APS EIM Entity shall notify the MO and Transmission Customers.

10.3 Corrective Actions Taken by the APS EIM Entity for Temporary Contingencies

The APS EIM Entity may declare a temporary contingency and invoke corrective actions for the EIM when, in its judgment:

(1) Operational circumstances (including a failure of the EIM to produce feasible results in APS's BAA) have caused or are in danger of causing an abnormal system condition in APS's BAA that requires immediate action to prevent loss of load, equipment damage, or tripping system elements that might result in cascading outages, or to restore system operation to meet the applicable Reliability Standards and reliability criteria established by NERC and WECC;

(2) Communications between the MO and the APS EIM Entity are disrupted and prevent the APS EIM Entity, the APS EIM Entity Scheduling Coordinator, or an

APS EIM Participating Resource Scheduling Coordinator from accessing MO systems to submit or receive information.

10.3.1 Corrective Actions for Temporary Contingencies

If either of the above temporary contingencies occurs, the APS EIM Entity may invoke the following corrective actions by requesting that the MO:

(1) Prevent EIM Transfers and separate the APS EIM Entity's BAA from operation of the EIM in the EIM Area; and/or

(2) Suspend settlement of EIM charges with respect to the APS EIM Entity.

When corrective actions 10.3.1(1) and (2) are implemented or if the MO Tariff requires the use of these temporary schedules to set an administrative price, the APS EIM Entity shall use Temporary Schedules 4, 10 and 12 set forth in Sections 10.4.1, 10.4.2 and 10.4.3 of this Attachment Q or the MO Tariff.

If the APS EIM Entity takes action under this Section 10.3, the APS EIM Entity shall notify the MO and Transmission Customers. The APS EIM Entity and the MO shall cooperate to resolve the temporary contingency event and restore full EIM operations as soon as is practicable.

10.4 Temporary Schedules 4, 10, and 12

10.4.1 Temporary Schedule 4 - Energy Imbalance Service

Energy Imbalance Service is provided when a difference occurs between the scheduled and the actual delivery of energy to a load located within a Control Area, or deliveries of power and energy out of the Control Area from generation resources located within the Control Area, over a single hour. APS must offer this service when the transmission service is used to serve load within its Control Area. The Transmission Customer must either purchase this service from APS or make alternative comparable arrangements, which may include use of non-generation resources capable of providing this service, to satisfy its Energy Imbalance Service obligation. APS may charge a Transmission Customer a penalty for either hourly energy imbalances under this Schedule or a penalty for hourly generator imbalances under Schedule 10 for imbalances occurring during the same hour, but not both unless the imbalances aggravate rather than offset each other.

APS shall establish charges for energy imbalance based on the deviation bands as follows: (i) deviations within +/- 1.5 percent (with a minimum of 2 MW) of the scheduled transaction to be applied hourly to any energy imbalance that occurs as a result of the Transmission Customer's scheduled transaction(s) will be netted on a monthly basis and settled financially, at the end of the month, at 100 percent of the Hourly Proxy Price; (ii) deviations greater than +/- 1.5 percent up to 7.5 percent (or greater than 2 MW up to 10 MW) of the scheduled transaction to be applied hourly to any energy imbalance that occurs as a result of the Transmission Customer's scheduled transaction(s) will be

settled financially, at the end of each month, at 110 percent of the Hourly Pricing Proxy for under scheduling or 90 percent of the Hourly Pricing Proxy for over scheduling, and (iii) deviations greater than +/- 7.5 percent (or 10 MW) of the scheduled transaction to be applied hourly to any energy imbalance that occurs as a result of the Transmission Customer's scheduled transaction(s) will be settled financially, at the end of each month, at 125 percent of the Hourly Pricing Proxy for under scheduling or 75 percent of the Hourly Pricing Proxy for over scheduling.

Hourly Pricing Proxy: For purposes of this Schedule 4, the "Hourly Pricing Proxy" is calculated using the published day ahead InterContinental Exchange ("ICE") Electricity Price Index. APS will calculate a weighted average using the day-ahead published hub pricing and volumes at Palo Verde, Four Corners and Mead for firm on-peak and off-peak prices. The hourly prices used for calculating Energy Imbalance Services for the billing month will be posted on APS' OASIS website 10 days after the last day of the billing month. In the event that Energy Imbalance Service is provided during a time where no volumes were reported at any of the three hubs, the most recent firm on-peak and off-peak prices will be carried forward. If the ICE permanently ceases to report day ahead pricing for any of the three hubs, or if the methodology used to determine the index at any of those hubs is materially modified, Transmission Provider shall select a permanent replacement index, reported by a reputable third-party, that reflects the actual same-day firm transactions at the effected hub.

10.4.2 Temporary Schedule 10 - Generator Imbalance Service

Generator Imbalance Service is provided when a difference occurs between the output of a generator located in the Transmission Provider's Control Area and a delivery schedule from that generator to (1) another Control Area or (2) a load within the Transmission Provider's Control Area over a single hour. The Transmission Provider must offer this service, to the extent it is physically feasible to do so from its resources or from resources available to it, when Transmission Service is used to deliver energy from a generator located within its Control Area. The Transmission Customer must either purchase this service from the Transmission Provider or make alternative comparable arrangements, which may include use of non-generation resources capable of providing this service, to satisfy its Generator Imbalance Service obligation. The Transmission Provider may charge a Transmission Customer a penalty for either hourly generator imbalances under this Schedule or a penalty for hourly energy imbalances under Schedule 4 for imbalances occurring during the same hour, but not both unless the imbalances aggravate rather than offset each other.

The Transmission Provider shall establish charges for generator imbalance based on the deviation bands as follows: (i) deviations within +/- 1.5 percent (with a minimum of 2 MW) of the scheduled transaction to be applied hourly to any generator imbalance that occurs as a result of the Transmission Customer's scheduled transaction(s) will be netted on a monthly basis and settled financially, at the end of each month, at 100 percent of the Hourly Proxy Price , (ii) deviations greater than +/- 1.5 percent up to 7.5 percent (or greater than 2 MW up to 10 MW) of the scheduled transaction to be applied hourly to any

generator imbalance that occurs as a result of the Transmission Customer's schedule transaction(s) will be settled financially, at the end of each month, at 110 percent of the Hourly Proxy Price for under scheduling or 90 percent of the Hourly Proxy Price for over scheduling, and (iii) deviations greater than +/- 7.5 percent (or 10 MW) of the scheduled transaction to be applied hourly to any generator imbalance that occurs as a result of the Transmission Customer's scheduled transaction(s) will be settled at 125 percent of the Hourly Proxy Price for under scheduling or 75 percent of the Hourly Proxy Price for over scheduling, except that an Variable Energy Resource will be exempt from this deviation band and will pay the deviation band charges for all deviations greater than the larger of 1.5 percent or 2 MW. An Intermittent Resource, for the limited purpose of this Schedule is an electric generator that is not dispatchable and cannot store its fuel source and therefore cannot respond to changes in system demand or respond to transmission security constraints.

Hourly Pricing Proxy: For purposes of this Schedule, the "Hourly Pricing Proxy" is calculated using the published day-ahead Inter Continental Exchange ("ICE") Electricity Price Index . APS will calculate a weighted average using the day-ahead published hub pricing and volumes at Palo Verde, Four Corners and Mead for firm on-peak and off-peak prices. The hourly prices used for calculating Generator Imbalance Services for the billing month will be posted on APS' OASIS website 10 days after the last day of the billing month. In the event that Generator Imbalance Service is provided during a time where no volumes were reported at any of the three hubs, the most recent firm on-peak and off-peak prices will be carried forward. If ICE permanently ceases to report day-ahead pricing for any of the three hubs, or if the methodology used to determine the index at any of these hubs is materially modified, Transmission Provider shall select a permanent replacement index, reported by a reputable third-party, that reflects the actual same-day firm transactions at the effected hub.

Notwithstanding the foregoing, deviations from scheduled transactions in order to respond to directives by the Transmission Provider, a BA, or a reliability coordinator shall not be subject to the deviation bands identified about and, instead, shall be settled financially, at the end of the month, at 100 percent of the Hourly Proxy Price. Such directives may include instructions to correct frequency decay, respond to a reserve sharing event, or change output to relieve congestion.

10.4.3 Temporary Schedule 12 - Loss Compensation Service

A transmission customer taking Network Integration Transmission Service, Firm or Non-Firm Point-to-Point Transmission Service shall be responsible for Real Power Losses as provided for in Sections 15.7, 28.5, and 36.5 of the Tariff. For each hour where the Transmission Provider provides loss service, the Transmission Customer shall compensate the Transmission Provider at a rate equal to the Hourly Pricing Proxy for energy for such hour based on the product of the actual transmission service provided (scheduled service less any curtailments, corrections or adjustments mutually agreed on by the Transmission Provider and the Transmission Customer) during each hour in

MWhs and the applicable loss factor provided in Sections 15.7, 28.5, and 36.5 of the Tariff.