ATTACHMENT 3 TO ESI'S JULY 13, 2007
ORDER NO. 890 COMPLIANCE FILING

BLACK-LINED COMPARISONS OF CRITERIA MANUALS INCLUDED IN MAY 18 FILING TO ATTACHMENTS C, D AND E OF THIRD REVISED VOLUME NO. 3 OF ESI's OATT

AFC MANUAL COMPARED TO ATTACHMENT C

[Entergy Services, Inc.]**ATTACHMENT C**

[As Agent for]

[Entergy Arkansas, Inc.]
[Entergy Gulf States, Inc.]
[Entergy Louisiana, Inc.]
[Entergy Mississippi, Inc.]
[Entergy New Orleans, Inc.]

[AFC PROCESS MANUAL]

AFC PROCESS MANUAL]

Methodology To Assess Available Transfer Capability

[Revision Log]

1. GENERAL

[Revision]	[Effective Date]	[Description]
[1.0]	[August 11, 2004]	[Original]
[1.1]	[September 28, 2005]	[Modifications agreed to as part of AFC Stakeholder Process.]
[1.2]	[October 26, 2006]	[Modifications to address SPP's AFC Audit Report.]
[1.3]	[Upon FERC Order Accepting Amendments]	[Modifications to conform with the Commission's order in *Entergy Servs., Inc.*, 119 FERC ¶ 61,009 (2007).]

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[1][Introduction to the AFC Process]

[1.1][What is Available Flowgate Capacity (AFC)?]

[Entergy uses a flow-based approach for calculating available transfer (transmission) capability and to evaluate requests for transmission service under the Entergy OATT. A flow-based approach predicts and analyzes flows on constrained facilities (called "flowgates") when determining whether sufficient capacity exists to approve a transmission service request. This flow-based approach is an alternative to a contract path-based approach.]

[The AFC value for a particular flowgate is the amount of transfer capability over that flowgate that remains available for additional transmission service reservations above and beyond existing uses of the transmission system. Entergy calculates Firm AFC and Non-Firm AFC pursuant to established NERC formulas for evaluating transfer capability.]

[1.2][Division of Responsibilities]

The division of responsibilities between the Transmission Provider and the Independent Coordinator of Transmission ("ICT") in performing duties related to the procedures described herein is controlled by Attachment S to the Tariff, including the ICT Protocols appended to Attachment S. [Any inconsistency between this manual and Attachments S or the ICT Protocols shall be resolved in favor of Attachment S and the ICT Protocols.]

The term "Entergy" is used to delineate the requirements or procedures applicable to the [Entergy transmission system and OATT]**Transmission System and the Tariff** generally, but is not used to delineate the division of responsibilities. Instead, the term "Transmission Provider" is used to delineate those duties that will be performed by Entergy personnel, as opposed to the ICT.

[1.3][Applying a Flow-Based Approach on the Entergy Transmission System]

[The flow-based approach applies only to short-term transmission service requests that fall within an eighteenth-month calculation horizon. Short-term transmission service requests that fall outside of the eighteen-month calculation horizon are evaluated using the System Impact Study process under the Entergy OATT. The term "short-term transmission service" refers to the following types of transmission service offered under the Entergy OATT: (1) firm and non-firm point-to-point transmission service reserved in daily, weekly, or monthly increments for a duration of less than one year; (2) requests by existing network customers to designate new network resources in daily, weekly, or monthly increments for a duration of less than one year; and (3) requests by existing network customers to designate secondary (non-firm) resources in all increments and durations. Long-term transmission service requests continue to be evaluated using the System Impact Study process under the Entergy OATT.]

[Implementation of the AFC process on Entergy's system consists of the following elements:]

[1. Flowgate Selection: The initial set of transmission facilities or "flowgates" that will be monitored in the AFC process will be listed in the Master Flowgate List attached hereto as Appendix B. Over time, flowgates may be added or removed from the initial set on either a permanent or temporary basis as described in the OATT and this manual.]

[

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[~~2. Calculation of AFC Values: Using base case power flow models, the OASIS Automation software calculates an AFC value for each flowgate monitored as part of the AFC process. The AFC value is the amount of transfer capability over a particular flowgate that remains available for additional transmission service reservations above and beyond existing uses of the transmission system. The base case power flow models will reflect network information from the EMS platform, unit commitment data, load forecast data, outage information and reservation/schedule data, among other inputs. Depending on the time frame in question, the models will be based on real-time EMS models and data from the State Estimator or off-line planning models. Consistent with NERC Standard FAC-012-1, AFC values shall respect all applicable System Operating Limits.~~]

[~~3. Response Factors: In order to evaluate whether a particular service request will use all, some, or none of the AFC for a particular flowgate, Entergy uses RFCalc, real-time EMS models and off-line planning models to calculate Response Factors. The Response Factors measure the power flow impact that each source-to-sink transaction has on each flowgate.~~]

[~~4. Time Horizons: The AFC process described above will be performed in three different time frames, referred to as 'horizons.' The Operating Horizon covers the time frame when firm service is scheduled, *i.e.*, all hours of the current and, after 12 p.m. all hours of the Day 2. The Planning Horizon covers the time frame starting from the end of the Operating Horizon extending out to Day 31. The Study Horizon covers the time frame from Month 2 – 18.~~]

[~~5. Evaluation of Service Requests: As individual transmission service requests are received, OASIS Automation applies the Response Factors to determine the impact new requests will have on the most limiting flowgates. Although the AFC process will monitor approximately 300-500 flowgates, a more limited set of flowgates will be used to evaluate individual service requests. When evaluating individual service requests, Entergy will only consider those flowgates that are: (1) "significantly impacted" by the request at issue, *i.e.*, those flowgates with a Response Factor equal to or greater than 3%; and (2) the "most limiting flowgates" for the request at issue, *i.e.* the fifteen flowgates with the lowest effective ATC values. If the effective ATC value on all of these flowgates remains positive or equal to zero after taking into account the impact of the transmission service request, the request will be granted. If the effective ATC value on any of these flowgates becomes negative or otherwise exceeds the rated capability of the facilities in question, then the request will be denied, unless transmission service of a lower priority may be preempted to bring the effective ATC value back to zero or positive.~~]

[~~1.4~~][~~AFC Process Flowchart~~]

1.2 Applicability

In accordance with Attachment S and the ICT Protocols, the ICT shall apply the procedures set forth herein on a non-discriminatory basis to evaluate Available Transfer Capability ("ATC") for the following transmission service requests ("TSRs") under this Tariff: (1) Short-Term Firm Point-To-Point Transmission Service; (2) Non-Firm Point-To-Point Transmission Service; (3) requests by existing Network Customers to designate new Network Resources for a duration of less than one year; and (4) Secondary Service requests by existing Network Customers under Section 28.4 of the Tariff. For all other requests, the ICT shall apply the procedures set forth in Attachment D, including TSRs for: (1) Long-Term Firm Point-To-Point Transmission Service; (2) Network Integration Transmission Service by new Network Customers; (3) new Network Resources of one year or more for existing Network Customers; and (4) requests by existing Network Customers to designate Network Resources and obtain rollover rights.

The ICT will respond to a valid Application for Transmission Service under this Tariff by performing studies pursuant to this Attachment C to assess whether sufficient transmission capability exists to accommodate the service requested in the Application. These studies will be made using a flow-based approach to determine the capability of the interconnected network to accommodate the request for Transmission Service ("AFC Process"). Requests for Point-to-Point Transmission Service will be made from source(s) to sink(s) as required by Attachment M, and requests for Network Service will be made by designating Network Resources, secondary resources and/or Network Load as required by Section 30 of the Tariff. If a TSR is denied, the ICT, upon request, will provide information to support the reason for the denial and the Transmission Provider will maintain such information for five (5) years. Flowcharts of the AFC Process are included in Exhibit 1 to this Attachment C.

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Applications]

[Applications]

[Application]	[Purpose]	[Runs]	[Inputs]	[Outputs]
[AFC SDF]	[Retrieves Transmission Branch and Section Outages from AORS (Planned) and COS (Unplanned). The application produces a formatted file that is sent to the EMS servers where RFLOADER uploads the information into EMS OUTAGE SCHEDULER]	[Every Hour]	[AORS and COS]	[AFC_OUTAGES.csv]
[AORS]	[This application is used within the TRANSMISSION Outage Planning Process. Contains all planned Branch/Section and Equipment Outages for the Entergy Transmission System]	[Constantly]	[Outage Planning Process]	[See AFC SDF]
[COS]	[This application is used to report all outages on the Entergy Transmission System.]	[Constantly]	[Outage Reporting Process]	[See AFC SDF]
[OVERLORD FTP]	[Monitors a folder for a new file from AFC SDF and ftp-ed the file to the EMS Servers once the file appears. We must FTP the file to the EMS servers (instead of mapping between servers) because of security issues between the Corporate and EMS network.]	[Constantly]	[See AFC SDF]	[See AFC SDF]
[RFLOADER] [(Oper. & Planning] [Horizon)]	[Uses information from Entergy SPO and CLECO to produce the Unit Commitment and Load Forecast File for RFCALC.] [Also, RFLOADER loads outage information into EMS Outage Scheduler for RFCALC's use.]	[Every Hour]	[CLEC_UC.csv] [110_UC.csv] [ZONAL_IMPORT_ LIMITS.txt] [PF_FACTORS.csv] [CLEC_LF.csv] [110_LF.csv]	[RFCALC_UC.csv] [RFCALC_LF.csv] [Populates EMS OUTAGE SCHEDULER]

			[AFC_OUTAGES.csv] [APPEND_AFC_] [OUTAGES.csv] [EMS RFLOADER DATABASE]	
[RFLOADER] [(Study Horizon)]	[Uses UC and LF information from PTI PSS/E solved power flow models to produce the Unit Commitment and Load Forecast File for RFCALC.] [Also, RFLOADER loads outage information into EMS Outage Scheduler for RFCALC's use.]	[Every Hour]	[UC.csv] [ZONAL_IMPORT_ LIMITS.txt] [PF_FACTORS.csv] [LF.csv] [AFC_OUTAGES.csv] [APPEND_AFC_] [OUTAGES.csv] [EMS RFLOADER DATABASE]	[RFCALC_UC.csv] [RFCALC_LF.csv] [Populates EMS OUTAGE SCHEDULER]
[RFLOADER DATABASE]	[Used to store information on which generator units are on AGC and what units are within the WOTAB and AMITE SOUTH load zones.]	[Constantly]	[Information provided by Transmission Operational Planning]	[Static Information used by RFLOADER to perform its operations]
[EMS OUTAGE SCHEDULER]	[This application is used to store Outage data for use by RFCALC. The interface to insert data into EMS OUTAGE SCHEDULER was more trivial than interfacing directly to RFCALC to provide outage data. Since EMS OUTAGE SCHEDULER and RFCALC already had an interface, EMS OUTAGE SCHEDULER was utilized to provide current outage information for AFC calculations.]	[Constantly]	[AFC_OUTAGES.csv] [APPEND_AFC_] [OUTAGES.csv]	[Provides interface to RFCALC for outage information]

[RFCALC]	[Calculates Base Flows and Response Factors on Entergy's Defined Flowgates.]	[Every Hour/Every six hours]	[RFCALC_UC.csv] [RFCALC_LF.csv] [EMS OUTAGE SCHEDULER] [RFCALC_NET_SCH.csv] [NETMOM Transmission System Model Information] [NETMOM Asset Parameters Information] [NETMOM Current Equipment Status Information] [OASIS AUTOMATION's Reservation Information]	[Base Flows & Response Factors provided to OASIS AUTOMATION.]
[EMS NETMOM DATABASE]	[Part of AREVA's Network Applications and is used to define the Transmission System model and parameters (i.e. impedance). Along with the system network topology structure, the NETMOM Database provides current equipment status from SCADA to be used in hours 1 to 3 to determine system network configuration in these hours.]	[Constantly]	[Network Modeling Process]	[NETMOM Transmission System Model Information] [NETMOM Asset Parameters Information] [NETMOM Current Equipment Status Information]
[ROBOTAG]	[Entergy's application for managing the NERC Tagging Processes. Provides the scheduling information against firm reservations.]	[Constantly]	[NERC Tagging Process]	[Scheduling Information provided to TAMS]
[TAMS] [(Hours 1 – 168)]	[Entergy's application for storing Reservation information. Transmission	[Constantly]	[OASIS Reservation Information]	[Provides Reservation Data spreadsheet used by

	Planning uses this reservation data to create PTI PSS/E power flow models.]			Transmission Operational Planning to create PSS/E power flow models.]
[TAMS] [(Day 8 – Study Horizon)]	[Entergy's application for storing Reservation information. Interfaces to Robotag to provide scheduling information against firm reservations.]	[Constantly]	[OASIS Reservation Information]	[RFCALC_NET_SCH.csv]
[OASIS AUTOMATION/] [SCENARIO ANALYZER]	[Entergy application for manage the Transmission Request Process. Scenario Analyzer is used by marketers to check for the availability of Transmission Capacity.]	[Constantly]	[OASIS Reservation Information]	[Provides Reservation Information to RFCALC]
[OASIS]	[The application marketers use to receive information on Entergy's Transmission System and submit Transmission Capacity Requests (Reservations).]	[Constantly]	[Transmission Information Postings] [Transmission Request Submissions]	[Reservation Information]
[PTI PSS/E]	[Power Flow Modeling application used to create power flow models for Entergy Transmission's Daily models.]	[Daily]	[Entergy SPO's Weekly Unit Commitment, Load Forecast and Generation Outages Plan] [Entergy SPO's Monthly Unit Commitment, Load Forecast, and Generation Outage Plan] [AORS Planned Transmission Outages] [MAXLS.xls]	[Daily Base Cases (Power Flow solutions)]
[UC AUTO]	[Extracts Unit Commitment and Load Forecast Information from PTI PSS/E Base Cases files to provide to	[Daily]	[PTI PSS/E Daily Base Case Solutions]	[UC.csv] [LF.csv]

	RFLOADER]			
[PAAC OFFLINE CALCULATOR]	[Uses PTI PSS/E solved power flow models to produce flow gate base flows and response factors for the Study Horizon months.]	[Weekly]	[PSS/E Monthly Base Case Solutions]	[Flow gate Base Flows and Response Factors file that will be uploaded by OASIS Automation]

[Inputs/Outputs]

[Input/Output]	[Purpose]	[Produced]	[Provided By]
[CLEC_UC.csv]	[Provides information on Unit Commitment for CLECO generators for 1 to 168 hours]	[Daily]	[CLECO]
[CLEC_LF.csv]	[Provides information on Load Forecast for CLECO]	[Daily]	[CLECO]
[110_UC.csv]	[Provides information on Unit Commitment for Entergy SPO's network generators for 1 to 168 hours]	[Daily, updated when changes occur.]	[ENTERGY SPO]
[110_LF.csv]	[Provides information on Load Forecast for ENTERGY and AECC Network Load for 1 to 168 hours]	[Daily, updated when changes occur.]	[ENTERGY SPO]
[ZONAL_IMPORT_LIMITS.txt]	[Provides information on Import Limit to the WOTAB and AMITE SOUTH load zones along with a percentage of Entergy's Load that WOTAB and AMITE SOUTH constitute]	[Daily]	[TRANSMISSION OPERATIONAL PLANNING]
[PF_FACTORS.csv]	[Provides generator participation factors for 1 to 168 hours and 8 to 31 days that is included in the RFCALC_UC.csv file.]	[Daily]	[TRANSMISSION OPERATIONAL PLANNING]
[AFC_OUTAGES_append.csv]	[Equipment, External Control Areas, and Generator Outages that cannot be obtained through AORS or COS]	[Daily]	[TRANSMISSION TECHNOLOGY DELIVERY]
[AFC_OUTAGES.csv]	[Transmission Branch/Section , Auto Transformer outages that are planned (AORS) and unplanned	[Hourly]	[AFC SDF]

	(COS)]		
[RFCALC_NET_SCH.csv]	[Aggregation of Schedule Information by hour and OASIS Source/sink that use Firm Transmission Reservations. Information only for Operational Horizon hours.]	[Hourly]	[TAMS]
[RFCALC_UC.csv]	[The Unit Commitment file required by RFCALC that is created by RFLOADER from UC inputs.]	[Hourly]	[RFLOADER]
[RFCALC_LF.csv]	[The Load Forecast file required by RFCALC that is created by RFLOADER from LF inputs.]	[Hourly]	[RFLOADER]
[Entergy SPO Current Week Unit Commitment and Load Forecast Plan]	[Provides daily information on Unit Commitment and Load Forecast for Entergy SPO's network generators and load for the next 7 days via a security web site.]	[Daily, updated when changes occur.]	[ENTERGY SPO]
[Entergy SPO Current Week Generator Outages Plan]	[Provides daily information on Generator Outages for Entergy SPO's network generators for the next 7 days via a security web site.]	[Daily, updated when changes occur.]	[ENTERGY SPO]
[Entergy SPO Monthly Energy Plan Unit Commitment and Load Forecast Plan]	[Provides information by week on Unit Commitment and Load Forecast for Entergy SPO's network generators and load for the next month via an excel file]	[Monthly]	[ENTERGY SPO]
[Entergy SPO Monthly Energy Plan Generator Outages Plan]	[Provides information by week on Generator Outages for Entergy SPO's network generators for the next month via an excel file.]	[Monthly]	[ENTERGY SPO]
[MAXLS.xls]	[Provides information on Unit Commitment for Entergy's Hydro Units.]	[Weekly]	[ENTERGY SPO]
[TAMS Reservation Data]	[A file of reservations from OASIS that need to be modeled into the PSS/E power flow models]	[Daily for Oper/Planning] [Weekly for Study]	[TAMS]
[AORS Outage Data]	[A file of outages from the approved planned outages in AORS]	[Daily]	[AORS]
[PSS/E Base Cases]	[The results of a solved power flow model from PTI PSS/E]	[Daily]	[PTI PSS/E]

[LF.csv]	[An extraction of Load Forecast information for the solved PTI PSS/E power flow solutions]	[Daily]	[UC AUTO]
[PF_FACTORS.csv]	[Provides generator participation factors for 1 to 168 hours and 8 to 31 days that is included in the RFCALC_UC.csv file.]	[Daily]	[TRANSMISSION OPERATIONAL PLANNING]
[APPEND_AFC_OUTAGES.csv]	[Equipment, External Control Areas, and Generator Outages that cannot be obtained through AORS or COS]	[Daily]	[TRANSMISSION TECHNOLOGY DELIVERY]
[Entergy SPO Monthly Load Forecast]	[Provides the Load Forecast for Entergy SPO's network load]	[Yearly]	[ENTERGY SPO]
[SMEPA Monthly Load Forecast]	[Provides the Load Forecast for SMEPA's embedded network load]	[Yearly]	[SMEPA]
[ETEC Monthly Load Forecast]	[Provides the Load Forecast for ETEC's embedded network load]	[Yearly]	[ETEC]
[LAGN Monthly Load Forecast]	[Provides the Load Forecast for LAGN's network load]	[Yearly]	[LAGN]
[Entergy SPO Monthly Generator Outage Plan]	[Provides the generation outage plan for Entergy SPO's network generators]	[Updated when changes occur]	[ENTERGY SPO]
[Planned Transmission Outage Data]	[A file of outages from the approved planned outages in AORS]	[Monthly]	[AORS]
[SEAMS Models]	[A collaborative effort between Entergy and External Control Areas to produce in PSS/E an extensive model of the SERC interconnection, with monthly updates to Southern Company and Tennessee Valley Authority control areas]	[Monthly]	[TRANSMISSION OPERATIONAL PLANNING]
[Monthly PSS/E Base Cases]	[The results of a solved power flow model from PTI PSS/E]	[Weekly]	[PTI PSS/E]
[Base Flows & Response Factors 2 – 18 Months]	[The results of the PAAC OFFLINE Calculator used to by OASIS Automation to publish AFC values.]	[Weekly]	[PAAC OFFLINE Calculator]

[2]2. Criteria for Flowgates and Transmission Facilities

[2.1]2.1 Criteria for [Selecting]Initial Selection of Monitored Flowgates [to Monitor]

[Entergy's]The AFC process [will determine constrained facility]determines ATC by monitoring the impact of [transmission service requests]TSRs on certain specified ["]flowgates.["] A ["]flowgate["] represents a constrained transmission facility that exceeds 100% of its rating during a power transfer. A ["]flowgate["] can be either: (1) a single transmission facility[, referred to as a "] (monitored element["]); or (2) a set of transmission facilities that includes ["]monitored elements[" and "contingent elements." The current list of monitored flowgates is publicly-available at: https://www.entergytransmission.com/s/capability/AFC/AFC_Flowgatelist_posting.asp] and contingent elements.

[Entergy uses the following assumptions for its selection of flowgates:]

[• 100% loading of the transmission facility rating for normal operation;]

[• 100% loading of the transmission facility rating during first contingency conditions;]

[• To maintain reliable system operations, Entergy attempts to maintain a minimum voltage of 92% under contingency conditions at all transmission stations. This threshold is higher for EHV stations (230 kV and above) and varies from 92% to 96%;]In selecting the initial set of monitored flowgates, the Transmission Provider included flowgates that violated: (1) 100% loading of a transmission facility rating for normal operation; (2) 100% loading of a transmission facility rating during first contingency conditions; (3) 92% of nominal voltage under single contingency conditions for transmission substation voltages below 230 kV; (4) a 92% to 96% nominal voltage under single contingency conditions for EHV stations (230 kV and above); and (5) 100% of the stability rating (as established by specific stability studies) under normal operation or single contingency event.

[• Fault current thresholds are not a factor in determining the list of flowgates for AFC calculations; and]

[• For facilities limited on stability, 100% of the rating of a transmission facility for normal operation based upon stability studies. Stability studies are performed by the transmission planning group to determine stability constraints. The results are translated, where applicable, to a flowgate flow limit for modeling in short-term models used for AFC analysis. Entergy applies a set of criteria for evaluating stability issues which are based existing industry standard practices.]

[For the initial determination monitored flowgates, the criteria include, but are not limited to: a threshold of 3% OTDF and a violation of 100% of a facilities' highest nameplate rating under first contingency. To select the flowgates that will be monitored in the AFC process, the Transmission

Provider focused on those transmission facilities that are likely to exceed 100% of its rating during power transfers.]The Transmission Provider used criteria based upon NERC Reliability Standards TPL-001-0 through TPL-004-0 and the Southeastern Electric Reliability Council['][']s ([''][“]SERC[''][”]) supplement to that standard to define when a transmission facility exceeds 100% of its rating. [For the initial determination of]**In determining** whether a facility met [the]NERC criteria, the Transmission Provider reviewed its existing power flow studies, including **Generator Operating Limit (**GOL**)** studies, TTC/ATC studies, system impact studies and studies performed in the real time environment. These studies were performed by using a base case power flow model to simulate a series of contingency analyses [(simulation of opening each transmission element one at a time)]and monitoring all transmission facilities above a select voltage level depending upon the study being performed. [Normally, a constraint or limit to the transfer of power involves the loss of one transmission element (contingent element) and the resulting overload of another transmission element (monitored element). The limit can also be caused by voltage or stability violations, which are handled by establishing a rating on the facilities that would reflect the safe operating level below the voltage or stability limit.]To the extent that a particular facility [has]exceeded 100% of its rating in previous studies or in real time operating conditions, the Transmission Provider considered the frequency and severity of those occurrences when determining whether the flowgate should be monitored. **The ICT shall post the Master List of Flowgates (Master List) on OASIS.**

[Flowgates outside of the Entergy transmission system will also be included in the list of flowgates to be monitored as needed. These flowgates will generally be taken from the NERC Book of Flowgates and will be coordinated with the neighboring transmission provider as needed. These external flowgates are used to determine transfer capability values that may be limited by flowgates external to the Entergy transmission system.]

[2.2]2.2 Criteria for Adding/Removing Monitored Flowgates

The ICT or the Transmission Provider may propose to modify the Master List by including new flowgates or excluding existing flowgates. For modifications proposed by the Transmission Provider, the Transmission Provider will document and supply to the ICT all studies, analyses and research conducted in connection with the proposed change. The ICT will review and validate all proposed changes to the Master List to ensure that such changes are consistent with the criteria outlined below. For purposes of this Section 2.2, the responsibility of the ICT to "review and validate" shall mean that the ICT will review the inputs and results of any study or analysis and confirm that the study results reasonably reflect the application and product of the criteria specified in this Section 2.2.

2.2.1 Adding New Flowgates. The Transmission Provider will use the following process to add new flowgates to the Master List. The ICT will **review and** validate that new flowgates are added to the Master List in accordance with the following criteria:

[1.] **2.2.1.1** When, through operational experience, a flowgate violates (1) 100% loading of the rating of a transmission facility for normal operation; (2) 100% loading of the rating of a transmission facility during first contingency conditions; (3) 92% of nominal voltage under single contingency conditions for transmission substation voltages below 230 kV; (4) a 92% to 96% nominal voltage under single contingency conditions for EHV stations (230 kV and above); and (5) 100% of the stability rating (as established by

specific stability studies) under normal operation or single contingency event, the Transmission Provider shall add the identified flowgate to the Master List and the ICT will update the Master List on OASIS. [~~2.~~]**2.2.1.2.** When new facilities, including but not limited to generation units, transmission facility additions or upgrades, are added to the [~~Entergy transmission system~~]**Transmission System**, the Transmission Provider will perform studies to identify additional flowgates to add to the Master List, in accordance with the criteria listed in [~~(1) above.~~] [~~3.~~]**Section 2.2.1.1 - 2.2.2.3.** When a new transmission facility is added that relieves an existing flowgate listed on the Master List, the Transmission Provider will perform studies to determine whether a flowgate should be identified to replace the unconstrained flowgate on the List of Flowgates, in accordance with the criteria listed in [~~(1) above.~~]**this Section 2.2.1.1.**

2.2.1.2 Flowgates outside of the Transmission System may also be included in the list of flowgates to be monitored as necessary. These flowgates will generally be taken from the NERC Book of Flowgates and will be coordinated with the neighboring transmission provider as necessary. These external flowgates are used to determine transfer capability values that may be limited by flowgates external to the Transmission System.

2.2.2 Removing Flowgates

The Transmission Provider will use the following [~~4-step~~]process to remove flowgates from the Master List. The ICT will **review and** validate that the removal of flowgates from the Master List is in accordance with the following [~~four-step~~]process:

[~~1.~~]**2.2.2.1** On an annual basis, the Transmission Provider will review the AFC logs to determine which flowgates have not limited service on the [~~Entergy transmission system~~]**Transmission System**.

[~~2.~~]**2.2.2.2** From the resulting list of flowgates identified in [~~(1) above,~~]**Section 2.2.2.1,** the Transmission Provider will derive a subset of flowgates with loading levels that do not exceed [~~a certain percentage~~]**60 percent** of their rating. This step will identify the Proposed Removal Candidate Flowgates.

[~~3.~~]**2.2.2.3** The Transmission Provider will review the Proposed Removal Candidate Flowgates against real-time reliability data to determine whether any of the Proposed Removal Candidate Flowgates must be retained for reliability concerns on the [~~Entergy transmission system~~]**Transmission System**. This step will identify the post-contingent loading level of each Proposed Removal Candidate Flowgate.

[~~4.~~]**2.2.2.4** The resulting list of Removal Candidate Flowgates will be sorted by post-contingent loading level and prioritized for removal from the Master List. If the number of Removal Candidate Flowgates identified through this removal review process exceeds the number of flowgates added to the Master List in the review year, the Transmission Provider will remove the same number of flowgates as were added to the Master List in the review year. If fewer Removal Candidate Flowgates are identified by the removal review process than were added during the review year, the

Transmission Provider will remove the entire list of Removal Candidate Flowgates from the Master List and expand the total number of flowgates on the Master List as necessary to maintain reliability of the [Entergy transmission system]**Transmission System**. The Transmission Provider will provide the ICT with an updated Master List and the ICT will post such updated Master List to the Entergy OASIS.

As indicated in [Step 4 above,]**2.2.2.4,** the process is designed to retain a constant number of flowgates [on the Master List of Flowgates, which number is currently set at]**(**approximately 300 flowgates**) on the Master List**. Expansion of this total number of flowgates may be necessary as system conditions change on the [Entergy transmission system]**Transmission System**.

[The current Master List will be posted on the Entergy's OASIS.]

[3][Calculation of AFC Values]

3. CALCULATION OF AFC VALUES

[3.1] 3.1 Base Case Models

[As with other transfer capability methodologies, the]**The** AFC process [will generate]**generates** a ["]base case["] model that simulates anticipated system conditions[for the particular period in question]. The base system conditions[will] include[, among other things,] projected load, generation dispatch, system configuration/outages, and base flow transactions. [Under the AFC process,]RFCalc produces power flow models representing three distinct time periods: (1) hourly models in the Operating and Planning Horizons for Hour [0]**1** to Hour 168; (2) daily models in the Planning Horizon for Day 8 to Day 31; and (3) monthly models in the Study Horizon for Month 2 to Month 18. In accordance with Sections 8.1 and 8.2 of the Transmission Service Protocol, the Transmission Provider maintains and services the AFC Software.

The power flow model used to determine constrained facility base flow and Response Factors for the Operating and Planning Horizons [will be]**is** based on [Entergy']**the Transmission Provider's** EMS and a state estimator snapshot of the real-time system. The power flow model for the Study Horizon [will use an]**uses** off-line power flow studies, such as PSS/E and MUST. [The inputs used to generate base case models are described in Section 4.]During the resynchronization process[(described in Section 6)], the base case models [will be]**are** modified to reflect additional transactions as discrete injections and withdrawals. Using these models as the starting point, RFCalc [will apply]**applies** the formulas described below to compute the AFC value on each monitored flowgate. Under Sections 6 and 8 of the Transmission Service Protocol, the Transmission Provider is responsible for supplying data inputs and information necessary for creating hourly, daily and monthly base case models. The ICT will be responsible for reviewing and validating the data inputs, information and base case models.

[The ICT will be responsible for reviewing and validating the data inputs, information and base case models.]For purposes of this Section 3, the responsibility of the ICT to "review and validate" shall

mean that the ICT will take reasonable steps to ensure that the data inputs are properly loaded and reflected in either RFCalc or the Transmission Provider's modeling processes and that the resultant AFC values (i) reasonably reflect the application and product of RFCalc or the Transmission Provider's modeling processes and (ii) are reasonably consistent with the current topology of the [Entergy]Transmission System.

[3.1.1][Modeling Assumptions]

[3.1.1.1 Operating and Planning Horizons]

[RFCalc creates the base case model using Entergy's Energy Management Systems (EMS) as modified to take into account outages, unit commitment, load forecasts and other system conditions. RFCalc uses various inputs to create these models, including: transmission facility outages, generation outages, unit commitment, generation dispatch, projected load levels, and transaction data. Special inputs to the EMS models for the Operating Horizon (12-36 hours, depending on proximity to noon) include all firm schedules and all accepted, confirmed and counteroffer non-firm reservations. The data is received from various sources feeding into the Entergy AFC process such as Transmission Automated Outage Request System ("TAORS") for transmission outages, the Entergy System Planning Organization ("SPO") inputs for unit commitment and dispatch, network resources from other network customers, purchase and sales transactions from OASIS, and net interchange schedules from the scheduling system.]

[With regard to data provided to Entergy by network customers, the provision of unit commitment data (or Designated Network Resource ("DNR") levels) is submitted through OASIS transmission service requests. New requests are entered with a designation that the unit is a new DNR or an increase in the designation of an existing DNR. Existing requests are recalled in order to reduce a designation or to de-list a DNR. Other factors affecting the generation dispatch can include unplanned unit outages and unplanned de-rating of transmission facilities, Qualified Facility puts, load forecasting, and short-term purchases by network customers.]

[The primary assumptions made when modeling in the Operating and Planning Horizon involve generation outages, load, net area interchange, transactions, and unit dispatch.]

[Three basic assumptions are made by RFCalc when modeling generation outages: (1) all network resource oil and gas generators are modeled in service if they are not on planned maintenance, emergency or long term outage; (2) network resource generators other than oil and gas are modeled in service if the dispatch for the generator in unit commitment file is non-zero; and (3) all merchant facilities, Independent Power Producers and Qualifying Facilities ("IPP" and "QF"), are always modeled in service.]

[For the purpose of modeling load, the system load for hourly models will be the hourly integrated value for each hour supplied by SPO. Entergy system load for daily models is the peak load for the day derived from SPO monthly energy plans. Load forecasts for Tennessee Valley Authority

("TVA") are received from TVA via a data exchange format called SDX. Load forecasts for other companies surrounding Entergy including AECI, CSWS, AMRN, EDE, LAFA, SPA, OKGE, LAGN and LEPA[1][are obtained from SPP via FTP site. These load forecasts are scaled by the Transmission Provider to match the equivalent model while maintaining the shape of load curve. Load forecasts for CLECO are received from CLECO and are used without scaling. Load forecasts for external areas other than those listed above are derived by using a scaling factor.]

[When calculating Net Area Interchange, RFCalc incorporates certain assumptions for internal and external control areas. For the Entergy control area, where all transactions of the control area known, net area interchange is calculated by summing up all transactions crossing control area boundaries. For external control areas where the transactions of control with Entergy are available, net area interchange is computed using real time net interchange and transactions with Entergy.]

[RFCalc incorporates certain transaction assumptions in the Operating and Planning Horizons. In the Operating Horizon models, all firm schedules and all accepted, confirmed and counteroffer non-firm reservations are modeled. In the Planning Horizon models all firm and non-firm reservations with status of accepted, confirmed or counteroffer are modeled. Schedules are not included in the Planning Horizon because during these hours and days schedules are not available for use in power flow models. In this case reservations are used in place of the schedules. Certain reservations are excluded from the models through use of an exclude file. Reservations that are in the queue for a System Impact Study or Facility Study are excluded to keep them from withholding capacity in the short term market. Once a reservation's status changes to a final state (confirmed, refused, withdrawn, etc), it is removed from the exclude file. Network reservations that represent the native load-owned resources are excluded because they are handled in the unit commitment file. Subsystem files for hourly models only include units that are online and have an assigned participation factor. Therefore, these units are the only participants in the transfer because RFCalc specifically uses units that are online in the calculation of response factors.]

[A major assumption for transmission outages is that all planned and unplanned transmission outages with voltage level 115 kV or more are included in AFC operating and planning models. All outages of bus breakers and power transformers are manually inserted into the models.]

[Hourly dispatch for day 1 to day 7 for all network resource units is provided by SPO. The dispatch is updated at least once daily. Dispatch for day 7 to 31 (daily peak cases) is generated from monthly energy plans supplied by SPO Daily and hourly dispatch for network resources is capped to Network Resource Designation ("NRD") for the plant. Dispatch and PMin of units in Amite South and WOTAB[2][is adjusted to meet the import limit requirements. In the power flow models, OASIS reservations and schedules are modeled on top of base dispatch. This becomes the start point (base point) of power flow solution. Dispatch of oil and gas network resources can be adjusted by RFCalc to meet the load and net interchange requirement. The adjustment is accomplished using

[1 A NERC Control Area acronym list can be obtained at: http://www.nerc.com/~filez/ctrlarealist.htm.]

[2 Both Amite South and WOTAB (West of the Atchafalaya Basin) are sub-areas with the Entergy Control Area.]

reserve-based participation factors. IPPs and QFs are dispatched to the level of the reservations and schedules that are active from that facility.]

[The generation dispatch in the EMS models is, for the most part, a manual process with limited software logic. The hourly dispatch for day 1 to day 7 for all network resource units serving SPO load is provided by SPO and is updated at least once daily. The dispatch serving SPO load for day 7 to 31 (daily peak cases) is generated from monthly energy plans supplied by SPO. OASIS reservations and schedules are modeled on top of base dispatch for both SPO load and the load of other network customers and this becomes the start point of the power flow solution. The software logic involved in the power flow solution is such that the dispatch of SPO's oil and gas network resources can be adjusted by RFCalc to meet the load and net interchange requirements. The adjustment is performed using reserve based participation factors.]

[3.1.1.2 Study Horizon]

[Pursuant to Section 6.2 of the Transmission Service Protocol, the Transmission Provider will provide to the ICT and other modeling group participants such data and information as may be necessary to prepare and update the monthly models used in the Study Horizon. The Transmission Provider creates the monthly models used in the Study subject to the ICT's review and validation pursuant to Sections 6.1 and 6.2 of the Transmission Service Protocol. The ICT will review and validate the data inputs provided by the Transmission Provider to ensure that the data inputs and resulting models are consistent with the Transmission Provider's criteria.]

[The modeling assumptions used by the Transmission Provider in the monthly modeling process are discussed and summarized below, as necessary to fully understand the Study Horizon modeling process. This summary includes assumptions made for dispatch, line outages, load, imports, transactions, and unit commitment.]

[When developing generation dispatch data inputs for monthly models, the Transmission Provider makes the following dispatch assumptions. IPP units in the Study Horizon models are dispatched to the level of the reservations that are active for that facility; QF/cogeneration units are dispatched to the level of the load at the facility in order for the QF to serve the host load entirely; and if there are any reservations from the units, they are added to the units dispatch level. In the absence of any OASIS reservations, the net injection from the QF into the Entergy system is zero MWs. Network resource units are dispatched economically using] [the ECDI function of PSS/E to create a least-cost dispatch for each case. Occasionally, the case is dispatched by zones, rather than by area, to enforce zonal import limits. For this instance, an IDEV file that recreates the dispatch is saved.]

[When developing topology data inputs for monthly models, the Transmission Provider makes the following assumptions pertaining to line outages. All 500kV lines that are scheduled out of service for one day are modeled out of service for the entire month and all 115kV – 230kV lines that are scheduled out of service for at least five days are modeled out of service for the entire month. Multiple lines will be scheduled out of service when the outages overlap or when non-overlapping

outages have no impact on one another. Critical lines that may not be out of service for the required time frame, but should be modeled out of service to better reflect the system conditions for the month, may also be modeled out of service. Line outages in models are updated at least once a month and posted on OASIS. Typically, OASIS Study Horizon model postings are updated once a week with new creation times, but newly retrieved line outages information is not typically included in this update.]

[When developing load data inputs for monthly models, the Transmission Provider makes the following assumptions. Entergy's load for each month is the peak value forecasted by SPO for the month. Cogeneration, industrial, and auxiliary load is assumed to be constant for every month. LAGN, SMEPA, ETEC, MDEA, SRMPA, and TVA embedded loads are added to the case based on either a load forecast, or monthly factors of the peak value. DENL's load is scaled for each month based on load forecast. CLECO, LAGN, and DERS loads in the non-peak models for each season are scaled by a factor. The LAFA load is modeled based on the load forecast data for each month.]

[The only assumption made by the Transmission Provider with respect to imports in monthly models is for the Amite South import limit. The Amite South import is held to a value of approximately 2000 MW.]

[When developing transaction data inputs for monthly models, the Transmission Provider models all monthly transactions in the appropriate month. Transactions which serve embedded loads, such as LAGN, SMEPA, ETEC, SRMPA, TVA, and MDEA, will match the value of the embedded load for the month. Transactions between CLECO and LAFA are adjusted so that the Bonin generator only generates 1 MW. Transactions which serve DENL match the load in DENL minus 20 MW of their own generation. Transactions which serve DERS match the load in the control area. Long term firm contracts are assumed to expire if not renewed 60 days prior to the end date of the contract. If the date of the monthly model creation is greater than 60 days before the end of the contract, rollover rights are assumed. If the date of the monthly model creation is within 60 days of the transaction end date, and a renewal has not been confirmed, the transaction is removed from the models representing the months after the end date of the contract. Transaction data and all other topology in models are updated and posted on OASIS at least once a month. Transaction data is typically updated weekly in models. Therefore, the posting dates on OASIS typically change weekly for Study Horizon models.]

[When developing unit commitment data inputs for monthly models, the Transmission Provider makes the following assumptions. The assumptions made for unit commitment are consistent with the line outage assumptions. All units that are offline for at least two weeks are assumed to be out of service for the entire month. One exception is that if two units in the same region are out of service in non-overlapping times during the month, only one unit is modeled offline. IPP units that have reservations are placed on-line, but if the facility has multiple units at one station, only the units that are required to meet the level of reservations are set on-line.]

[CLECO unit outages follow the same principle as the Entergy unit outages. Sterlington 7, Patterson 3 & 4, Moses, Lynch, Monroe, Mabelvale, Ritchie, and Lake Catherine 1, 2, & 3 units are modeled out of service at all times if there is already a sufficient amount of generation, because these units do not normally run. The Natchez unit is also modeled offline because it usually does not run and because the unit has been de-staffed.]

[The formula for determining the amount of generation in the base case is only used for IPPs/QF and base loaded units of Entergy. The value is calculated by adding the MW of base case to the MW of transmission reserved to the MW of transmission scheduled. Unlike oil and gas units in Entergy, IPP/QF and base load units are not on Automatic Generation Control (AGC). Therefore, IPP/QF output remains fixed, while all oil and gas units in Entergy can move during power flow solution to balance the system (Load + Net Interchange + Losses = Generation). All other data inputs matched the respective models.]

[There are three separate types of units modeled in the monthly loadflow models (Study Horizon) and the unit commitment and dispatch process varies with each type of unit. The three unit types are IPP units, cogeneration units, and network resource units (all other units). The IPP units are dispatched to the level of the reservations that are active for that facility. Cogeneration units are dispatched to the level of the load at the facility so that the host load is served entirely by the cogeneration unit. If there are any reservations from the units, those are added to the dispatch level of the units. In the absence of any OASIS reservations, the net injection from the cogeneration unit into the Entergy system is zero MW. The third type of unit is the network resource unit, which utilizes some PSS/E software logic in determining dispatch levels. The network resource units are dispatched economically using the ECDI function of PSS/E. An ECDI file containing heat rate and fuel cost information is passed to PSS/E and PSS/E sets the level of generation according to the economic information, so that the case achieves a least cost dispatch.]

[3.2][AFC Formula for Firm Transmission Service Requests]

[OASIS Automation computes available flowgate capability using the following standard NERC formula for firm service:]

3.2 AFC Formula for Non-firm Transmission Service Requests

[Firm AFC = Rating – TRM – CBM – Base FlowFirm]

[Where:]

[Firm AFC]	[=]	[the amount of firm transfer capability over that flowgate that remains available for additional transmission service reservations above and beyond existing uses of the transmission system]

[Rating]	[=]	[the capability of a flowgate in a time period]
[TRM]	[=]	[Transmission Reliability Margin]
[CBM]	[=]	[Capacity Benefit Margin]
[Base Flow (Firm)]	[=]	[the expected firm power flow through a flowgate in a time period with all pertinent flows included in the power flow base case]

[3.3][AFC Formula for Non-firm Transmission Service Requests]

[OASIS Automation computes available flowgate capability using the following standard NERC formula for non-firm service:]

OASIS Automation computes Non-Firm AFC for both the Operating and Planning Horizons. Non-Firm AFC is the capacity that remains on a constrained facility after subtracting power flows for service to Native Load Customers, Network Customers, Firm Point-to-Point Customers, Non-Firm Point-to-Point Customers and other firm and non-firm transactions. Non-Firm AFC is computed in the Planning Horizon using the same power flow solution as used for Firm AFC, with the exception that the effects of non-firm reservations will not be removed from base flows by OASIS Automation. After the power flow model has been solved for a time segment, OASIS Automation/RFCalc takes the base flows of constrained facilities and adjusts them to remove a percentage of the counter-flows from both firm and non-firm reservations. The adjustment to remove a percentage of counter-flows only applies to the most limiting facilities for a source/sink pair. After adjusting base flows for the effects of firm and non-firm reservations, OASIS Automation uses the following formula to determine Non-Firm AFC:

$$\text{Non-Firm AFC} = \text{Rating} - \text{TRM} - \text{Base Flow}_{\text{NON-FIRM}}$$

Where:

Non-Firm AFC	=	the amount of non-firm transfer capability over that flowgate that remains available for additional transmission service reservations above and beyond existing uses of the transmission system
Rating	=	the capability of a flowgate in a time period
TRM	=	Transmission Reliability Margin
Base Flow (Non-Firm)	=	the expected firm and non-firm power flow through a Flowgate in a time period with all pertinent flows included in the power flow base case

[3.4]3.3 AFC Calculation Horizons

AFC values are calculated for three different time periods: (1) the Operating Horizon, which includes all hours of the current day (Day 1) and, after 12:00 p.m., all hours of the next day (Day 2); (2) the Planning Horizon, which extends from the end of the Operating Horizon through the thirty-first day (Day 31); and (3) the Study Horizon, which extends from the end of the Planning Horizon through the eighteenth month (Month 18).

[~~3.4.1 ~~]3.3.1 Operating Horizon

In the Operating Horizon[~~ (Day 1 to Day 2)~~], the Non-Firm AFC values for each flowgate are calculated by OASIS Automation, which uses Response Factors and base flow calculated by RFCalc. The topology for the base case model for the first three hours in the Operating Horizon is generated by Entergy's State Estimator. The relevant unit commitment and load forecast inputs are incorporated into the model. Beyond the first three hours, RFCalc creates the base case model using Entergy's EMS as modified to take into account outages, unit commitment, load forecasts and other system conditions. Using the power flow models and Non-Firm AFC formula discussed above, OASIS Automation calculates Non-Firm AFC values for all hours of Day 1 and, after 12:00 p.m., all hours of Day 2. This calculation is performed for Non-firm AFC values only. Firm AFC values are not calculated for the Operating Horizon because requests for firm [~~transmission service~~]**Transmission Service** must be submitted by 12:00 p.m. on the day prior to commencement of such service. Therefore, because firm service cannot be requested during the Operating Horizon, only Non-Firm AFCs are calculated for that horizon. All Non-Firm AFC values and Response Factors for the Operating Horizon are calculated and updated at least on an hourly basis to reflect changing system conditions, including additional confirmed [~~transmission service~~]**Transmission Service** reservations and schedules.

[~~3.4.2 ~~]3.3.2 Planning Horizon

In the Planning Horizon[~~ (Day 2 to Day 31)~~], Firm and Non-Firm AFC values for each flowgate are calculated by OASIS Automation, which uses Response Factors and base flow calculated by RFCalc. The base case model is generated by RFCalc using data from Entergy's EMS as modified to take into account outages, unit commitment, load forecasts and other system conditions. OASIS Automation calculates hourly Firm and Non-Firm AFC values for each flowgate for Day 2 through Day 7 and daily Firm and Non-Firm AFC values for Day 3 to Day 31. OASIS Automation updates both Firm AFC and Non-Firm AFC values for the Planning Horizon at least every day to reflect changing system conditions, including additional confirmed [~~transmission service~~]**Transmission Service** reservations. In between such updates, Non-Firm and Firm AFC values are decremented algebraically to reflect subsequent [~~transmission service~~]**Transmission Service** reservations.

[~~3.4.3 ~~]3.3.3 Study Horizon

In the Study Horizon[~~ (Month 2 to Month 18)~~], the ICT, using data inputs and power flow models developed by the Transmission Provider and reviewed and validated by the ICT, calculates monthly Response Factors and AFC values by conducting off-line power flow studies, such as PSS/E and MUST. The off-line planning models are developed on a rolling eighteen-month basis and are representative of monthly peak-hour conditions. The OASIS Automation software calculates both Firm and Non-firm AFC values for the Study Horizon and updates those values at least on a monthly (currently weekly) basis to reflect changing system conditions and additional confirmed transmission reservations. In between such

updates, Non-Firm and Firm AFC values are decremented algebraically to reflect subsequent [~~transmission service~~]**Transmission Service** reservations.

3.4 AFC Formula for Firm Transmission Service Requests

OASIS Automation computes Firm AFC for the Planning and Study Horizons. Firm AFC is not available for the Operating Horizon, and therefore, is not computed for this time frame. Firm AFC is the capacity that remains on the constrained facility after subtracting power flows for service to Native Load Customers, Network Customers, Firm Point-to-Point Customers and other firm transactions.

For the Planning Horizon, Firm AFC will be determined at least once a day during the daily resynchronization by solving a power flow model that includes both firm and non-firm transmission reservation and is based on data from the Transmission Provider's Emergency Management System (EMS). For the Study Horizon, Firm AFC will be determined on a monthly basis by solving an off-line power flow models that include both firm and non-firm transmission reservations. The flows on constrained facilities should represent base flows that serve Native Load Customers, Network Customers, Firm Point-to-Point Customers and other firm transactions.

After the power flow model has been solved for a time segment, OASIS Automation takes the base flows of constrained facilities and adjusts them to remove the effects of non-firm reservations from the most limiting facilities that were evaluated in the power flow model. OASIS Automation/RFCalc also takes the base flows of constrained facilities and adjusts them to remove a percentage of the counter-flows from firm reservations. The adjustment to remove a percentage of counter-flows only applies to the most limiting facilities for a source/sink pair. After adjusting base flows for the effects of firm and non-firm reservations, OASIS Automation uses the following formula to determine Firm AFC:

$$\text{Firm AFC} = \text{Rating} - \text{TRM} - \text{CBM} - \text{Base Flow}_{\text{FIRM}}$$

Where:

Firm AFC	**=**	**the amount of firm transfer capability over that flowgate that remains available for additional transmission service reservations above and beyond existing uses of the transmission system**
Rating	**=**	**the capability of a flowgate in a time period**
TRM	**=**	**Transmission Reliability Margin**
CBM	**=**	**Capacity Benefit Margin**
Base Flow (Firm)	**=**	**the expected firm power flow through a flowgate in a time period with all pertinent flows included in the power flow base case**

[~~3.5~~]3.5 Resynchronization of AFC Values

AFC values will be [~~recalculated or "~~]resynchronized[~~"~~]**: (i)** every hour during the Operating Horizon[~~,~~]**; (ii)** at least every day for the Planning Horizon[~~,~~]**; (iii)** and no less than every month during the Study Horizon. Resynchronizations [~~can~~]**may** occur more frequently if necessary[~~, but will not occur less frequently.~~]**.** The ICT may also direct resynchronizations of AFC values pursuant to Section 8.3 of the Transmission Service Protocol.

For the Operating and Planning Horizons, RFCalc incorporates all the data inputs during the resynchronization process to develop power flow models that define each time point included in the Operating and Study horizons. During the resynchronization process, prior commitment and [~~accepted service requests~~]**confirmed TSRs** are modeled into the base case as discrete injections and withdrawals, and new base flows are determined from these models. Using the new base flow amounts and models, RFCalc recalculates the base flow value on each monitored flowgate in the Master List. For the Study Horizon, this process is performed by an off-line AFC calculator. When a new [~~request for transmission service~~]**TSR** is accepted [~~in~~]between resynchronizations, the [~~most limiting flowgates~~]**"Most Limiting Flowgates"**[1] that are significantly impacted by that particular request will be updated on OASIS by algebraically decrementing the appropriate AFC values. At the time of the next resynchronization, the [~~service requests~~]**TSRs** that have been [~~approved~~]**confirmed** since the last resynchronization will then be modeled as physical injections and withdrawals in the same manner of all other previously granted service requests.

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[1] **Although the AFC process will monitor approximately 300-500 flowgates, OASIS Automation will use a more limited set of flowgates, as determined by RFCalc, to evaluate individual TSRs. The Most Limiting Flowgates are the fifteen flowgates with the lowest effective ATC values for the TSR at issue.**

[1][4][Inputs to Base Case Models and the AFC Formulas]

4. INPUTS TO BASE CASE MODELS AND THE AFC FORMULAS

[~~4.1~~]4.1 Base Flow

The Base Flow calculation for Firm AFC values [~~will take~~]**takes** into account all existing firm [~~uses of the transmission system~~]**Transmission Service**, including capacity reserved for: (1) [~~firm point-to-point transmission service~~]**Firm Point-to-Point Transmission Service**; (2) service to [~~network~~]**Network** and [~~native load~~]**Native Load** customers; and (3) other firm [~~transmission service~~]**Transmission Service**, such as service under pre-Order No. 888 grandfathered agreements. The Base Flow calculation will also take into account any relevant counterflows[~~ as discussed below~~].

Entergy [~~will model~~]**models** the output of QF/Cogeneration units to a level sufficient to meet [~~at~~]any host load requirements[~~ (currently QF/cogeneration units are purely reservation based and are set to zero initially)~~]. To the extent there is a firm or non-firm reservation from a QF, it will be handled the same as a firm or non-firm reservation from any other source on the [~~Entergy system.~~][~~Requests to designate a new network resource by an existing network customer within the Entergy control area may also be submitted as a "displacement" of existing network resources. To generate the AFC values associated with a displacement request, the AFC process modifies the base flows to reflect a reduction in the output of the existing oil and gas-fired generating resources within the Entergy control area while still honoring the bulk transfer limits within the control area~~]**Transmission System**.

Under Sections 6 and 8 of the Transmission Service Protocol, the Transmission Provider is responsible for supplying the data inputs and information necessary for creating the hourly, daily and monthly base case models. RFCalc utilizes this data to create hourly and daily models, while the Transmission Provider creates monthly models for use with off-line power flow applications, such as PSSE/MUST. The ICT is responsible for reviewing and validating the data inputs, information and base case models supplied by the [~~Tranmission~~]**Transmission** Provider. The ICT's "review and validation" responsibility shall obligate the ICT to take reasonable steps to ensure that the data inputs are properly loaded and reflected in the Transmission Provider's modeling processes and that the resultant AFC values (i) reasonably reflect the application and product of these modeling processes and (ii) are reasonably consistent with the current topology of the [~~Entergy~~]Transmission System.

[~~4.1.1~~][~~Base Flow~~][~~ and Assumptions~~]

To account for all existing firm uses of the [~~transmission system~~]**Transmission System**, assumptions must be made for the load forecast, unit commitment, scheduled outages, counterflows, and net interchange. The actual dispatch on the [~~Entergy system~~]**Transmission System** may differ from the expected dispatch modeled in the AFC process due to uncertainties involving unplanned unit outages and unplanned derates, Qualified Facility puts, load forecasting, and short-term purchases by [~~network customers~~]**Network Customers**.

[~~4.1.1.1~~]4.2 Load Forecast

For the Operating Horizon [~~through Day 7 of~~]**and** the Planning Horizon, [~~the~~]Entergy**'s** System Planning Organization (SPO) **and all other AFC process participants will be provided with a secure Web-based**

portal to upload the load forecast data. Pursuant to Section 4.2.1, SPO and all Network Customers will be required to submit load forecast data for their respective loads through this portal. If a Network Customer does not supply load forecast data for a particular time period, historical data will be used to create a load forecast for purposes of calculating AFC values. SPO supplies a load forecast for the load served by Entergy. [RFCalc]All other Network Customers supply a load forecast for their own load. To the extent that RFcalc must calculate a load for load areas not included in the SPO supplied load forecast[. This], this is accomplished by assigning these non-forecasted areas a [scaling]factor, and then applying the scaling factor to calculate the area load based on an assumed forecast area.

For [Day 8 through Day 31 of the Planning Horizon, the load forecast for the Entergy control area is derived from offline power flow models, which use inputs from SPO to define Entergy's control area load. The load level for other network customers and external control areas is defined using a scaling approach similar to the one described for the Day 1 – 7 timeframe.][For]the Study Horizon, the load forecast is based on inputs received from SPO for the Entergy [control area. For network customers and control areas]Control Area. For Network Customers and Control Areas that are embedded in footprint of the [Entergy transmission system]Transmission System, the Transmission Provider uses load forecast data to the extent it is supplied by the host entity. If no such data is available, the Transmission Provider defines the load level for these [control areas/network customers]Control Areas/Network Customers based on a scaling factor using the peak load forecast as reference. External [control area]Control Area loads are at levels defined by the VAST[3]2 study group models or the Multi-regional Model Working Group (MMWG). To the extent an external [control area]Control Area supplies load forecast data to the Transmission Provider, this data will supersede data from the VAST or MMWG model.

[4.1.1.2]4.2.1 Unit Commitment and Dispatch Forecasts – Planning and Operating Horizons

Generation unit commitment and dispatch will be modeled in the Planning and Operation Horizons pursuant to the process described below once all necessary software modifications have become operational. Because the software modifications necessary for the Default Format dispatch methodology described below will be operational first, this methodology will be used exclusively until the remaining software modifications are completed.

4.2.1.1 Generation Data Required for Modeling Service to Network/Native Load

For the Operating and Planning Horizons, SPO and all other Network Customers will be provided with a secure Web based portal to upload generation unit commitment and dispatch. SPO and all Network Customers will be required to submit generation data for their respective loads through this portal. All generation and load files must be submitted each weekday morning no later than the time specified by the ICT, so that updated dispatch information can be incorporated into AFC calculations for that day. More frequent updates will be accommodated if available. All data files

[3]2 The VAST study group is comprised of engineers from Entergy, Southern Company, TVA, and VACAR who coordinate power flow model development for the SERC subregion.

submitted by SPO and Network Customers will be treated as confidential information belonging to the customer submitting that information. Network Customers will be required to use secure digital certificates to log-in to the web portal and will only have access to their own data. The files themselves will not be posted on OASIS, but the dispatch levels produced by the AFC process will be included in the AFC models posted on OASIS. Customer dispatch files referenced herein are only projections of anticipated unit commitment/dispatch decisions that often will not reflect the real-time operating status of units.

SPO and all other customers will have the option of submitting dispatch information in three formats: (a) Stack Format, (b) the Hourly Format and (c) the Unit Commitment Format. The choice of which format to use will be left to the customer. RFcalc and other supporting software will pre-process all dispatch files provided by customers and SPO. If RFcalc determines that any of the files submitted by a customer or SPO do NOT meet the applicable requirements, RFcalc will dispatch the resources according to the Default Format. The pre-processing function performed by RFcalc will ensure that various requirements are met, including (but not limited to): (i) the format of the files are correct; (ii) all reservations specified in the files are confirmed reservations for firm Network Service; (iii) hourly dispatch levels and PMAX values are consistent with designated Network Resource capacity; (iv) sufficient Network Resources have been provided to meet network or native load; and (v) hourly dispatch values for individual units are reflective of the facility in question in terms of minimum and maximum run levels and ability of the unit to ramp over the entire range of run levels. After RFcalc confirms that the Stack, Hourly and UC Format files for each customer meets the applicable requirements, RFcalc will follow the sequential process described in Section 4.2.1.2 below to build power flow models and dispatch generation to serve network and native load.

A. Stack Format

Customers that choose the Stack Format option will be required to submit the following information:

- Forecasted hourly load for each hour of the next 11 days, (Days 1-11) and forecasted peak-hour load for each day of the next 24 days (Days 12-35);
- Three separate lists (or "stacks") of OASIS reservations for all confirmed Network Resources (short-term and long-term), with each list arranged in the dispatch order preferred by the customer with the resource to be dispatched first-listed-first and the resource to be dispatched last-listed-last. A separate stack should be submitted for each of the following periods: (1) the peak hours (HE[3] 7 - 22) for each day of the next 11 days; (2) the off-peak hours (HE 1-6, 23-24) for the next 11 days; and (3) the peak hours for the next 24 days. The reservations listed in each stack will be identified by OASIS ID numbers;[4] and
- The sum total of the OATT reservation capacity listed in the Stack Format file must be at least equal to the highest forecasted load plus losses in each hour of the three periods identified above.

B. Hourly Format

[3] "HE" denotes Hour Ending.

[4] Where the designated network resource is a power purchase contract that is being sourced from a unit directly interconnected with the Transmission System, the OASIS ID number used must be specific to that generating unit.

Network Customers that choose the Hourly Format option will be required to submit the following information:

- **Forecasted hourly load for each hour of the next 11 days, (Days 1-11) and forecasted peak-hour load for each day of the next 24 days (Days 12-35);**
- **Forecasted hourly dispatch for each hour of the next 11 days, (Days 1-11) and for the peak-hour load for each day of the next 24 days (Days 12-35). The forecasted hourly and peak-hour dispatch must be provided on a reservation-specific basis and can only include confirmed reservations for short-term and long-term designated Network Resources. Network Resources that do not currently have an OASIS ID number will be required to obtain an OASIS ID number that will be used for purposes of this option; and**
- **The forecasted hourly dispatch listed in the Hourly Format file must be equal to the forecasted load plus losses for each time point.**

C. Unit Commitment Format

Customers that choose the Unit Commitment (UC) Format option will be required to submit the following information:

- **Forecasted hourly load for each hour of the next 11 days, and forecasted peak-hour load for each day of the next 24 days;**
- **A UC Format file that contains the customer's designated long-term Network Resources and the following information for those resources: minimum and maximum run levels, resource availability (*i.e.*, outage schedule) and a forecasted hourly dispatch of those resources for each hour of the next 11 days, (Days 1-11) and for the peak-hour load for each day of the next 24 days (Days 12-31). The forecasted hourly dispatch does not have to equal total Network Load and losses and cannot include resources for which firm Transmission Service has not been reserved. The UC Format file dispatch should be based on long-term confirmed firm service only and should not include any capacity reserved via short-term service requests;**
- **One or more Stack Format files containing the customer's OASIS reservations for short-term confirmed Network Resources arranged in dispatch order. As with the Stack Format option, the customer will submit a separate "stack" for each period (peak during the next 11 days, off-peak during the next 11 days, and peak for the next 24 days) for which the Hourly Format file is insufficient to meet load plus losses in any hour; and**
- **The UC and Stack Format files, when combined, must provide sufficient resources to meet forecasted network load and losses in each hour of the three periods identified above.**

4.2.1.2 Modeling Service to Network/Native Load Using Customer-Supplied Data

After RFcalc confirms that the Stack, Hourly and UC Format files meet the applicable requirements, RFcalc will dispatch generation to meet Network Load in the following manner. Regardless of the format selected, generation will be modeled to serve load in the following order: (1) Network Customers outside of the Entergy Control Area; (2) Network Customers and "grandfathered" customers within the Entergy Control Area; (3) Network Customers with a Control Area with load included in the SPO load; and (4) SPO load.

- **For customers that choose the Hourly Format, RFCALC will dispatch the reservations as specified in the file. All reservations (or portions thereof) that are not dispatched in the Hourly Format file but that are still available for scheduling by the customer on a firm basis will be treated as "Excess Reservations." If the dispatch provided in the Hourly Format file is insufficient to meet the loads and losses of the customer, or is in excess of load and losses for the customer, the default option will be used except for customer who are full or partial requirement customers of SPO and have option of reserving additional service. For these full or partial requirement customers the hourly dispatch is not required to be equal to load and losses and any unbalanced portion of their load will be balanced with SPO resources.**

- **For customers that choose the Stack Format, RFcalc will dispatch the reservations sequentially in the dispatch order until the load requirements are met. Once RFcalc has dispatched the reservations such that generation meets load and losses, any remaining reservations (or portions thereof) will be treated as "Excess Reservations" under Section 4.2.2.1 below. If the dispatch provided in the stack is not sufficient to meet the load and losses of the Network Customer, then depending upon the type of Network Customer, RFcalc will take the following approach to balance the remaining load and losses:**

  1. For customers that are full or partial requirement customers of SPO and have the option of reserving additional service, their remaining load will be balanced by using SPO resources.

  2. For customers that are not full or partial requirement SPO customers, RFcalc will look for additional confirmed reservations on OASIS. These will be confirmed reservations sinking into the Network Customer but not specified in the stack. These reservations should be modeled in reverse queue order (*i.e.* the last queued should be modeled first). If after modeling the customer's stack and remaining confirmed oasis reservations, and the load of the Network Customer is still not met, RFcalc will utilize the AGC[5] units in the Control Area in which the Network Customer load resides to meet the remaining load. If after exhausting all AGC units up to their PMAX, the load is still not met, RFcalc will adjust the NI of the Control Area to balance the load. If the NI adjustment also fails to meet the load the Powerflow may diverge for that particular timepoint.

- **For customers that choose the UC Format, RFcalc will dispatch the available Network Resources at the hourly levels specified in the UC Format file. RFcalc will use the reservations identified in the Stack Format file to meet load to the extent that the dispatch of the UC Format file does not fully serve the load and losses. While modeling reservations specified in the stack order. RFcalc will check if the reservation is a long-term reservation. A long-term reservation is any reservation which is for a period greater than one year. If the reservation is long-term, then RFcalc will only dispatch the portion of the reservation not specified in the UC Format file. If there are any reservations remaining after load has been met, those reservations will be treated as "Excess Reservations" as described in Section 4.2.2.1 below. If both the UC Format file**

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[5] **For purposes of the AFC Process, AGC are those generation units that are designated in the model for load balancing but do not necessarily have automatic generation control capability.**

dispatch and the reservation stack are not sufficient to meet the load and losses of the customer, depending upon the type of customer, RFcalc will take the following approach to balance the remaining load and losses:

1. For customers that are full or partial requirement customers of SPO and have the option of reserving additional service, their remaining load will be balanced by using SPO resources.

2. For customers that are not full or partial requirement SPO customers, RFcalc will look for additional confirmed reservations on OASIS. These will be confirmed reservations sinking into the customer but not specified in the stack. These reservations should be modeled in reverse queue order (*i.e.* the last queued should be modeled first). If after modeling customer stack and remaining confirmed OASIS reservations, the load of the customer is still not met, RFcalc will utilize the AGC units in the Control Area in which Network Customer load resides to meet the remaining load. If after exhausting all AGC units up to their PMAX and the load is still not met, RFcalc will adjust the NI of the Control Area to balance the load. If the NI adjustment also fails to meet the load, the Powerflow may diverge for that particular timepoint.

4.2.2 Modeling Service to Network/Native Load Using the Default Format

RFcalc will dispatch OATT reservations and Network Resources according to the Default Format during any resynchronization where a valid Hourly, Stack or UC Format file is not available, as described below. This includes instances where a Network Customer or SPO does not provide any file or the file does not meet the applicable requirements.

Under the Default Format, if the load data is provided by a customer RFcalc will utilize it. If the load data is not provided RFcalc will derive the load by using a scale factor against the SPO load.
In the Default Format option, if the customer has provided a UC Format file RFcalc will first model the UC Format file dispatch and then look for all confirmed OASIS reservations (Network and Point-to-Point) sinking into the customer to meet the remaining load of the customer. RFcalc will model these reservations in reverse queue order. While modeling reservations in reverse queue order, RFcalc will check if the reservation is a long-term reservation. If the reservation is long-term, then RFcalc will only dispatch the portion of the reservation not specified in UC Format file.

If the customer has not provided a UC Format file, then RFcalc will model the confirmed reservations (Network and Point-to-Point) sinking into the customer in reverse queue order. RFcalc can partially model a reservation to satisfy load requirements.

If after modeling all confirmed reservations (Network and Point-to-Point) as specified above, and the load of the customer is still not met, and the customer is not a full or partial requirement customer of SPO, RFcalc will first dispatch the AGC generators in the Control Area where the customer load resides. These generators can be dispatched up to their MW max limit. If after this step the load has still not been met, RFcalc will change the NI of the Control Area where the customer load resides to meet the load. If changing the NI also does not meet the load the Powerflow for that timepoint may diverge. For customers who are full or partial requirement customers of SPO, their unbalanced load will be balanced by using SPO resources.

4.2.2.1 Treatment of Excess Reservations for Network/Native Load

Under the procedures described above in Section 4.2.1.1, there will be instances where reservations that have been confirmed are not modeled or "dispatched" in the base case. These reservations are referred to as "Excess Reservations." To prevent overselling, RFcalc will algebraically decrement the impact of Excess Reservations on the two proxy flowgates (PMAX and TIECAP). For those reservations that are partially dispatched in the base case model (*i.e.,* not at full output), the un-modeled impact of those reservations will be decremented against these two flowgates also. The impact of Excess Reservations would *not* be decremented against the other flowgates included in the list of the Most Limiting Flowgates.

4.2.2.2 Modeling Point-to-Point Service

RFcalc will model most firm point-to-point reservations (imports and exports) at their respective reservation levels. There are some customers that serve load using grandfathered point-to-point reservations. For these specific point-to-point reservations that sink to Network Load, RFcalc will utilize the process described in Section 4.2.2.1.

4.2.2.3 Modeling Unconfirmed Reservations

Reservations (both Point-to-Point and new Network Resources) that are in accepted mode and counteroffered will not be modeled in base flows after resynchronization. Reservations that are in accepted or counter offer mode will be algebraically decremented against the two proxy flowgates (PMAX and TIECAP) and the remaining top-thirteen flowgates until such time as they are withdrawn, rejected or confirmed. All reservations that are in study mode will be algebraically decremented against the two proxy flowgates (PMAX and TIECAP) and the remaining top-thirteen flowgates. Once an accepted request is confirmed, it will only be modeled if included in the customer's dispatch files or until such time as RFcalc requires modeling of those reservations to meet the customer's load. When an accepted request is confirmed in between resynchronizations, it will continue to be decremented against the two proxy flowgates (PMAX and TIECAP) and the remaining top-thirteen flowgates until such time there is an RFCalc and OASIS Automation resync. Confirmed reservations for Network Resources that are not modeled by RFcalc will be treated as Excess Reservations and will be decremented against the two proxy flowgates (PMAX and TIECAP) but not the remaining top-fifteen flowgates.

4.2.3 Unit Commitment and Dispatch – Planning Horizon and Study Horizon

Unit commitment and dispatch is based on information provided by SPO and other Network Customers. For the Entergy Operating Companies serving Entergy native load, the [~~network resources~~]**Network Resources** of the Entergy Operating Companies are set to meet Entergy's native load based in part on information provided by the entity responsible for serving that load, *i.e.,* Entergy's SPO group. This information varies depending on the time horizon in question. Additional information from other sources that is used to determine unit commitment includes updated data regarding [~~network resources~~]**Network Resources**, purchases and sale transactions, and net interchange.

[~~For the first part of the Planning Horizon and the Operating Horizon, RFCalc combines a list of designated network resources that are approved for firm service with information regarding~~

Entergy's expected commitment and dispatch level for those resources. The list of designated network resources approved for firm service is provided by Transmission Operations. The expected commitment and dispatch level for the network resources for the next ten days is provided, on a daily basis, by SPO. The network resources may include merchant generation that has contracted with Entergy, or other network customers, to serve native and network load. RFCalc also incorporates purchase and sale transactions for which transmission service has been requested. This information is collected from Entergy's OASIS site.]

[For network customers under the Entergy OATT, that customer's designated network resources are set to meet its network load by dispatching those network resources that are committed in the current hour state estimator model.]

[RFCalc will make adjustments to SPO's expectation of Entergy-owned commitment and dispatch if total anticipated resources (SPO's expected utilization of network resources plus OASIS reservations plus net interchange) does not match forecasted load plus net interchange. If the total resources exceed anticipated load plus net interchange, RFCalc will reduce the output of Entergy-owned network resources, as necessary. This adjustment is typically applied only to Entergy's gas/oil units. If the total resources do not satisfy anticipated load plus net interchange, RFCalc will increase the output of Entergy-owned network resources, as necessary. The amount of the adjustment per generator is based on a unit "participation factor." The unit participation factor is based on each unit's pre-adjustment operating level relative to the unit's PMAX (if an upward adjustment is necessary) or PMIN (if a downward adjustment is necessary).[4][The participation factor is calculated in such a way that all adjusted units reach PMAX or PMIN at the same time.]

[RFCalc adjustments to SPO's expectation of Entergy-owned commitment and dispatch should be expected given the impact that short-term resources have on Entergy's procurement and given the way many of these resources are modeled in the AFC analysis. In reality, SPO often relies on short-term economy purchases, block purchases, or mandatory energy purchases from qualifying facilities[5][("QFs") to satisfy load. These resources are only included in the AFC analysis, however, if transmission service has been requested for the transaction. This is a direct application of the physical rights nature of the OATT to the AFC calculation. The manner in which the OATT requires Entergy to model transactions can lead to significant differences between simulated operations (in RFCalc) and actual operations by SPO. For example, Entergy has typically been obligated to purchase over 1,000 MWs, on average, around-the-clock from QFs (in some hours over 2,000 MWs). However, since QFs have no obligation to sell energy to Entergy nor are they required to reserve or schedule transmission service on the Entergy system when they plan to sell ("put") to Entergy; QFs puts are not included in the AFC analysis. Under these circumstances, the AFC calculation will not reflect the flow of energy from QF facilities but rather

[4 P_{min} values for all units of Enteryg's oil/gas units, however, have been set to zero.]

[5 There are 57 QF generators on the Entergy system with a combined capacity of 8400 MW. Entergy has not modified the way it models QF "puts" since implementation of the AFC process.]

from the Entergy-owned gas/oil units used by RFCalc to match supply and demand.][For part of the Planning Horizon and all of the Study Horizon, the base case power flow model includes, updated information regarding network resources, purchases and sale transactions, and net interchange. In addition, unit]Unit commitment and dispatch assumptions for[days 8 through 31 and] months 2 through 18 are derived from power flow models prepared using PSS/E and MUST software tools and data provided by SPO. These same issues discussed above with respect to differences between simulated operations (here, in PSS/E MUST) and actual operations are present in these time horizons also. **The process for developing unit commitment and dispatch assumptions for the Study Horizon is further described in this Section 4.2.3.**

[4.1.1.3]4.2.4 Outages

[Transmission topology directly impacts the values of the Response Factors and the resulting AFC values. Accordingly,]Entergy's AFC analysis accounts for planned transmission facility outages scheduled for construction and maintenance activities **and unplanned transmission facility outages**. For the first three hours of the Operating Horizon, the transmission topology is supplied to RFCalc straight from the EMS. [For]**The Transmission Provider adjusts the EMS topology for** hours 4 through day 31,[the EMS topology is adjusted by the Transmission Provider] based on planned transmission facility outage schedules. Planned outages are posted on the Entergy OASIS. In the Study Horizon, [planned outages are factored into]the Transmission [organization's]**Provider factors planned outages into the** off-line model development. **Entergy posts outage information on the OASIS as described in Section 9.3.**

[4.1.1.4]4.2.5 Counterflow

The Base Flow calculation also takes into account any relevant counterflows as discussed below in section [4.4.]**4.6.**

[4.1.1.5]4.2.6 Net interchange

[The net interchange (“]**Net Interchange (“**NI[”]**”**) describes the amount of power estimated to flow between Entergy and the [fifteen]external [control areas]**Control Areas** modeled in the AFC analysis. NI for the Entergy [control area]**Control Area** is defined by total exports to external [control areas]**Control Areas** minus total imports into the Entergy [control area]**Control Area**. For the Entergy [control area]**Control Area**, all the reservations/schedules with external [control areas]**Control Areas** are available from the OASIS and therefore can be used to define NI for the Entergy [control area. For the external control areas]**Control Area. Thus, the NI for the Entergy Control Area is computed by using all reservations and schedules which are modeled to balance the loads and bilateral transactions with external areas. For some external Control Areas which are Network Customers or small areas, the NI is computed by using the reservations/schedules available from the OASIS in the same manner as NI computations for Entergy. For some larger external Control Areas**, Entergy only has information on reservations/schedules between Entergy and the external [control area]**Control Area**. Therefore, the NI for each time point for external [control areas]**Control Areas** has to be derived using available information. The process used for deriving the NI for **these large** external [control areas]**Control Areas** is described below:

- For the Operating Horizon and the [planning horizonPlanning Horizon, RFCalc derives NI for [each]some large external [control area]Control Areas each period in the analysis by taking actual, current NI information, the transaction between Entergy and the external [control area]Control Area and adding an estimate of the change in NI. The actual, current NI is identified using the real-time state estimator ([']"SE[']") model solution for the current hour (the hour in which the calculation is made). Since the real-time state estimator solution represents actual system conditions, it is assumed to be an accurate representation of the NI across all [control areas]Control Areas in the model. The estimated change in NI is based on information from Entergy[']'s OASIS. An estimate of NI in the current hour is based on all scheduled OASIS reservations across the interfaces for the current hour. An estimate of NI for a future hour is based on all OASIS reservations and schedules [across the interfaces for the future hour]that are across control area boundaries and are modeled by RFCALC to balance the load and generation. The estimated change in NI is[simply] the difference between the estimate for the current hour scheduled interchange and the net sum of all [scheduled and reserved]schedules and reservations modeled by RFCALC for load balancing and the power crossing the interface between Entergy and the subject external [control area]Control Area for the future hour. The NI estimate used in the AFC analysis is the sum of the actual NI for the current real-time hour and the estimated change in NI. [Consider the following illustration of a calculation made on Monday at 2:00 pm to estimate the NI for (the following) Thursday at 4:00 pm for an external control area X:]

[• SE information indicates actual NI on Monday at 2:00 pm is equal to 500 MW;]
[• OASIS information indicates total scheduled transactions across the Entergy-X interface for Monday at 2:00 pm is equal to 700 MW (export of 700 MW from Entergy to control area X);]
[• OASIS information indicates total reservations and schedules across the Entergy-X interface for Thursday at 4:00 pm is equal to 600 MW (export of 600 MW from Entergy to control area X);]
[• RFCalc estimates NI for control area X for use in AFC analysis of Thursday at 4:00 pm at 600 MW: 500 MW + (700 MW – 600 MW).]

The [Net Interchange]NI for Day 8 through 31 is derived in a similar fashion to the method described for the Operation Horizon through Day 7. However, the NI in months 2 through 18 for external [control areas]Control Areas is derived from models developed by the VAST study group model development efforts.

4.3 Modeling Assumptions

Set forth below are the modeling assumptions for the Operating, Planning and Study Horizons. To the extent practicable, these assumptions are consistent with the assumptions used for operations and system planning.

4.3.1 Operating and Planning Horizons

RFcalc creates the base case model using EMS as modified to take into account outages, unit commitment, load forecasts, and upon the effectiveness of Section 4.2.1, reservation priority data, hourly dispatch information, and other system conditions. Additional inputs to the EMS models for the Operating Horizon (12-36 hours, depending on proximity to noon) include all firm schedules and all confirmed non-firm reservations. The data is received from various sources, including: (i) Transmission Automated Outage Request System ("TAORS") for transmission outages; (ii) Transmission Consolidated Outage System ("COS") (iii) SPO inputs for unit commitment and dispatch and load forecasts (iv) Network Resources and load forecasts from other Network Customers; (v) purchase and sales transactions from OASIS ; and (v) schedules from the scheduling system.

The provision of unit commitment data (or Designated Network Resource ("DNR") levels) is submitted through OASIS TSRs. New TSRs are entered with a designation that the unit is a new DNR or an increase in the designation of an existing DNR. Existing TSRs are undesignated in order to reduce a designation or to de-list a DNR. Other factors affecting the generation dispatch include: (i) unplanned unit outages and unplanned de-rating of transmission facilities; (ii) Qualifying Facility ("QF") puts; (iii) load forecasting (iv) and short-term purchases by Network Customers.

When modeling generation outages, RFCalc assumes: (1) all Network Resource oil and gas generators are in service if they are not on planned maintenance, emergency or long term outage; (2) Network Resource generators other than oil and gas are in service if the dispatch for the generator in the unit commitment file is non-zero; and (3) all merchant facilities, Independent Power Producers and Qualifying Facilities ("IPP"), are in service.

When modeling load, RFcalc assumes system load for hourly models to be the hourly integrated value for each hour supplied by SPO and other Network Customers. Load data includes hourly load forecasts for the next 11 days, and daily peak load forecasts from Day 12 to Day 35. If a Network Customer does not provide load forecasts, historical information is used. Forecasts for Tennessee Valley Authority ("TVA") and the Southern Companies ("Southern") are received from TVA and Southern via the SDX data exchange. Load forecasts for other companies surrounding the Entergy Control Area, including AECI, CSWS, AMRN, EDE, LAFA, SPA, OKGE, LAGN and LEPA,[7] are obtained from SPP via an FTP site. Some of these load forecasts are scaled by the Transmission Provider to match the equivalent model while maintaining the shape of load curve. Load forecasts for external areas other than those listed above are derived by using a scaling factor.

Subsystem files for hourly models only include units that are online and have an assigned participation factor. Therefore, these units are the only participants in the transfer because RFCalc specifically uses units that are online in the calculation of response factors.

Transmission outages, both planned and unplanned, for facilities with voltage levels 115 kV or more, are included in AFC operating and planning models. Outages of bus breakers and power transformers are manually inserted into the models.

4.3.2 Study Horizon

[7] **A NERC Control Area acronym list can be obtained at: http://www.nerc.com/~filez/ctrlarealist.htm.**

Pursuant to Section 6.2 of the Transmission Service Protocol, the Transmission Provider provides to the ICT and other modeling group participants such data and information as may be necessary to prepare and update the monthly models used in the Study Horizon. The Transmission Provider creates the monthly models used in the Study subject to the ICT's review and validation pursuant to Sections 6.1 and 6.2 of the Transmission Service Protocol. The ICT reviews and validates the data inputs provided by the Transmission Provider to ensure that the data inputs and resulting models are consistent with the Transmission Provider's criteria.

When developing generation dispatch data inputs for monthly models, the Transmission Provider assumes IPP units in the Study Horizon models are dispatched to the level of the reservations that are active for that facility. The Transmission Provider also assumes QF/cogeneration units are dispatched to the level of the load at the facility. If there are any reservations from the QF/cogeneration units, such reservations are added to the units dispatch level. In the absence of any OASIS reservations, the net injection from the QF is zero MWs. Network Resource units are dispatched economically using the ECDI function of PSS/E to create a least-cost dispatch for each case. When necessary to enforce zonal import limits, the case is dispatched by zones rather than by area. When this occurs, an IDEV file that recreates the dispatch is saved.

When developing topology data inputs for monthly models, the Transmission Provider assumes all 500kV lines that are scheduled out of service for one day are modeled out of service for the entire month, and all 115kV – 230kV lines that are scheduled out of service for at least five days are modeled out of service for the entire month. The Transmission Provider schedules multiple lines as out of service when the outages overlap or when non-overlapping outages have no impact on one another. The Transmission Provider also models critical lines as out of service even if the lines are not out of service for the required time framebut should be modeled out of service to better reflect the system conditions for the month. The Transmission Provider updates line outages in models at least once a month and the ICT posts the updates on OASIS. OASIS Study Horizon model postings are updated once a week with new creation times, but newly retrieved line outages information is not included in this update.

When developing load data inputs for monthly models, the Transmission Provider assumes Entergy's load for each month is the peak value forecasted by SPO for the month. Cogeneration, industrial, and auxiliary load is assumed to be constant for every month. LAGN, SMEPA, ETEC, MDEA, SRMPA, and TVA embedded loads are added to the case based on either a load forecast, or monthly factors of the peak value. DENL's load is scaled for each month based on load forecast. CLECO, LAGN, and DERS loads in the non-peak models for each season are scaled by a factor. The LAFA load is modeled based on the load forecast data for each month.

There are no assumptions with respect to imports in the monthly models except for the Amite South import limit, which is held to a value of approximately 2000 MW.

When developing transaction data inputs for monthly models, the Transmission Provider models all monthly transactions in the appropriate month. Transactions which serve embedded loads, such as LAGN, SMEPA, ETEC, SRMPA, TVA, and MDEA, will match the value of the embedded load for the month. Transactions between CLECO and LAFA are adjusted so that the Bonin generator only generates 1 MW. Transactions which serve DENL match the load in DENL minus 20 MW of their own generation. Transactions which serve DERS match the load in the Control Area. Long term firm contracts are assumed to expire if not renewed one year prior to the end date of the contract. If the

date of the monthly model creation is greater than one year before the end of the contract, rollover rights are assumed. If the date of the monthly model creation is within one year of the transaction end date, and a renewal has not been confirmed, the transaction is removed from the models representing the months after the end date of the contract. Transaction data and all other topology in models are updated and posted on OASIS at least once a month. Transaction data is typically updated weekly in models. Thus, the posting dates on OASIS typically change weekly for Study Horizon models.

When developing unit commitment data inputs for monthly models, the Transmission Provider assumes all units that are offline for at least two weeks are out of service for the entire month. However, if two units in the same region are out of service at non-overlapping intervals during the month, only one unit is modeled offline. IPP units that have reservations are placed on-line, but if the facility has multiple units at one station, only the units that are required to meet the level of reservations are set on-line.

For CLECO, the Transmission Provider models Sterlington 7, Patterson 3 & 4, Moses, Lynch, Monroe, Mabelvale, Ritchie, and Lake Catherine 1, 2, & 3 units as out of service at all times if there is already a sufficient amount of generation. The Natchez unit is also modeled offline.

The formula for determining the amount of generation in the base case is only used for IPPs/QF and base loaded units of Entergy. The value is calculated by adding the MW of base case to the MW of transmission reserved to the MW of transmission scheduled. All other data inputs match the respective models.

There are three separate types of units modeled in the monthly loadflow models (Study Horizon) and the unit commitment and dispatch process varies with each type of unit. The three unit types are IPP units, cogeneration units, and Network Resource units (all other units). The IPP units are dispatched to the level of the reservations that are active for that facility. Cogeneration units are dispatched to the level of the load at the facility so that the host load is served entirely by the cogeneration unit. If there are any reservations from the units, those are added to the dispatch level of the units. In the absence of any OASIS reservations, the net injection from the cogeneration unit into the Entergy system is zero MW. The third type of unit is the Network Resource unit, which utilizes some PSS/E software logic in determining dispatch levels. The Network Resource units are dispatched economically using the ECDI function of PSS/E. An ECDI file containing heat rate and fuel cost information is passed to PSS/E and PSS/E sets the level of generation according to the economic information, so that the case achieves a least cost dispatch.

[~~4.2~~]4.4 TRM

Transmission Reliability Margin **(TRM)** is the amount of transmission transfer capability needed to provide a reasonable level of assurance that the system will remain reliable. TRM accounts for the inherent uncertainty in system conditions and its associated effects on AFC calculation, and the need for operating flexibility to ensure reliable system operation as system conditions change. The current value of TRM used by Entergy for the purposes of short-term AFC calculations for eighteen months or less is zero.

[4.3][CBM]

4.5 Capacity Benefit Margin

[A CBM value of "zero"]**Capacity Benefit Margin (CBM) is the amount of firm transmission transfer capability preserved by the transmission provider for Load-Serving Entities (LSEs), whose loads are located on that Transmission Service Provider's system, to enable access by the LSEs to generation from interconnected systems to meet generation reliability requirements. Preservation of CBM for an LSE allows that entity to reduce its installed generating capacity below that which may otherwise have been necessary without interconnections to meet its generation reliability requirements. The transmission transfer capability preserved as CBM is intended to be used by the LSE only in times of emergency generation deficiencies. A CBM value of "zero"** will be used in calculating AFC values and in reviewing [transmission service requests]**TSRs** on the [Entergy transmission system]**Transmission System**, unless Entergy submits a Section 205 filing for a higher value.

[4.4] 4.6 Counter-Flows

RFCalc adjusts the base flow associated with a particular flowgate by removing a percentage of counterflow impacts in the calculation of AFC values. [Entergy will include]**Transmission Provider includes** 100% of counterflows created by firm and non-firm reservations when evaluating [transmission service requests]**TSRs** in the Operating, Planning and Study Horizons. [Because Non-Firm AFC in]**In** the Operating **and Planning** Horizon[is based on service that is actually scheduled], Entergy will include 100% of counterflows created by firm schedules when evaluating [transmission service requests]**TSRs** in the Operating Horizon.

The Transmission Provider will review scheduling data and other operational experience on a bi-annual basis to determine the viability of the established counterflow percentages and will provide to the ICT all studies, analysis and research conducted in connection with any proposed change to the counterflow calculation. The ICT will independently review and validate, and shall [publicly]post **on OASIS** notice of, any such change prior to effectiveness. For purposes of this Section [4.4,]**4.6,** the responsibility of the ICT to ["]**"**review and validate["]**"** shall mean that the ICT will review the inputs and results of any study or analysis provided by the Transmission Provider and shall confirm that the results reasonably reflect the application and product of such studies and analyses.

[4.4.1][Suspension of Standard Calculation for Operating and Planning Horizon]

[The Transmission Provider disabled the counterflow (removal) feature in the Operating and Planning Horizons, which means that Entergy is currently including 100% of the counterflows in its AFC calculations. The Transmission Provider revised the modeling assumptions to include 100% of counterflows in the AFC calculations on a temporary basis, as a more compatible means of calculating counterflows with fluctuating participation factors. The Transmission Provider will continue to monitor the need to reinstate the counter flow adjustments in the operating and planning horizons, based on system conditions and after evaluating the performance of static

participation factors. If the Transmission Provider determines a need to reinstate the counterflow adjustments, the ICT will review and validate any such change in accordance with Section 8.1 of the Transmission Service Protocol. Counter flow adjustments continue to be applied in the Study horizon.]

The formula used for adjusting base flows to take into account counterflows is described below:

$$Adjusted\ Base\ Flow_{Flowgate1} = Original\ Base\ Flow_{Flowgate1} + (CF_1 * X')$$

Where,

X = Positive Flow

X' = CounterFlow

$$Original\ Base\ Flow_{Flowgate1} = X - X'$$

CF_1 = Counter Flow factor

[4.5]

$$AFC_{Flowgate1} = TTC_{Flowgate1} - Adjusted\ Base\ Flow_{Flowgate1}$$

4.7 Transmission Facility Ratings

[~~4.5.1~~]4.7.1 Introduction

A transmission facility consists of all elements carrying load between circuit breakers or the comparable switching devices. Transformers with both primary and secondary windings energized at 69 kV or above are subject to these criteria. All circuit ratings are computed with the system operated in its normal state (all lines and buses in-service, all breakers with normal status, all loads served from their normal source). The circuit ratings are specified in "MVA" and are taken as the minimum ratings of all of the elements in series. The minimum circuit rating is determined as described in these criteria and Entergy maintains transmission right-of-way to operate at this rating. However, Entergy may use circuit ratings higher than these minimums. Each element of a circuit has both a normal and an emergency rating and is defined as follows:

[~~♦~~]NORMAL RATING: Normal circuit ratings specify the level of power flow that facilities can carry continuously without damage or loss of life to the facility involved.

[~~♦~~]EMERGENCY RATING: Emergency circuit ratings specify the level of power flow that a facility can carry for the time sufficient for adjustment of transfer schedules, generation dispatch, or line switching in an orderly manner with acceptable loss of life to the facility involved.

In many instances these two ratings for Entergy facilities will be identical for power flow model purposes and the emergency rating is used for contingency evaluation.

[~~4.5.2~~]4.7.2 Power Transformer

Power transformer loading guidelines are established in ANSI/IEEE C57.91-1995, IEEE Guide for Loading Mineral-Oil-Immersed Power Transformers rated 55°C or 65°C Winding. Every transformer has a temperature rise capability based on its nameplate rating (either 55°C or 65°C). These temperature rise amounts reflect the average winding temperature rise over a 30°C ambient that a transformer may operate on a continuous basis and still provide normal life expectancy.

The normal circuit rating for power transformers is its highest nameplate rating. The nameplate rating includes the effects of forced cooling equipment if it is available. For multi-rated transformers (ONAN/ONAF, ONAN/ONAN/ONAF, ONAN/OFAF/OFAF, ONAN/ONAF/OFAF, etc.) with all or part of forced cooling inoperative, nameplate rating used is based upon the maximum cooling available. Normal thermal life expectancy will occur with a transformer operated at continuous nameplate rating.

When operated for one or more load cycles above nameplate rating, the transformer insulation deteriorates at a faster rate than normal. The emergency circuit rating for power transformers is normally a minimum of 100% of its highest nameplate rating.

4.7.3 Overhead Conductor

[4.5.3][Overhead Conductor]

[Entergy's transmission system consists of 15,000 miles of transmission lines. Existing lines have been built over a long span of years, under a variety of NESC codes, by decentralized engineering departments (until 1992) and under various engineering management.]

Entergy conductor ratings are based on the "IEEE Standard for Calculation of Bare Overhead Conductor Temperature and Ampacity. Under Steady-State Conditions," ANSI/IEEE Standard 738-1993. (Prior to the promulgation of the ANSI/IEEE standard, conductor ratings were based on the "House and Tuttle" method, which formed the basis for the ANSI/IEEE standard.) The ANSI/IEEE standard uses as inputs to the calculation several company-chosen assumptions about ambient and operating conditions. For older vintage lines, Entergy adheres to the recorded ratings.

Entergy's system-wide standards for ambient and operating assumptions include the following:

[♦———]Line altitude	0 feet mean sea level
[♦———]Line Latitude	30 degrees North Latitude
[♦———]Line Orientation	East-West
[♦———]Coefficient of Emissivity	0.5
[♦———]Coefficient of Absorption	0.5
[♦———]Atmospheric quality	Clear
[♦———]Time of day	12 noon
[♦———]Ambient temperature	40degC (104degF)
[♦———]Ambient wind speed	2 fps
[♦———]Wind-conductor angle	90 degrees

The selection of a maximum conductor temperature affects both the operation and design of transmission lines. Existing transmission lines were designed to meet operating standards in effect at the time the line was built. Over time, these standards have been modified, as reflected in revisions to the National Electric Safety Code (NESC). For those existing lines that were designed to meet an earlier standard, Entergy will apply a rating that is consistent with the NESC design standards being practiced at the time the line was built. Entergy's current maximum conductor operating temperatures are as follows:

ACSR	100C
ACAR	80C
AAC	80C
Cu	95C
ACSS	180C

[4.5.4]4.7.4 Other Transmission Equipment

In addition to the power transformers and overhead conductors, Entergy will also rate other transmission equipment, including underground cables, wave traps, switches, current transformers, and circuit breakers.

Ratings for these types of transmission equipment will be determined in accordance with applicable ANSI/IEEE Standards.

[4.5.5]4.7.5 Circuit Rating Issues

There may be instances when the flow on a transmission circuit is limited by factors other than the thermal capacity of its elements. The limit may be caused by other factors such as stability, phase angle difference, relay settings or voltage limitations.

When a tie line exists between two member systems, use of this criteria will result in a uniform circuit rating that is determined on a consistent basis between the two systems. Entergy follows this criteria to rate the circuit elements owned by them and will coordinate the rating of the tie line with the co-owner such that it utilizes the lowest rating between the two systems.

Entergy may have a contractual interest in a joint ownership transmission line whereby the capacity of the line is allocated among the owners. The allocated capacity may be based upon the thermal capacity of the line or other considerations. Entergy will follow this criteria to rate the circuit elements owned by them and will coordinate the rating of the tie line with the co-owner such that it utilizes the lowest rating between the two systems.

There may be instances when a derating of a transmission line element is required due to damaged equipment. The limit may be caused by such factors as broken strands, damaged connectors, failed cooling fans, or other damage reducing the thermal capability.

[1][5][Response Factors]

5. RESPONSE FACTORS

[5.1]5.1 Introduction to Response Factors

Response Factors measure the impact[(*i.e.*, the incremental loading)] that each source-to-sink transaction has on a monitored flowgate. Response Factors are calculated on a transaction-specific and flowgate-specific basis. [Response Factors are transaction-specific in the sense that each source-to-sink pair will have a set of Response Factors based on the power flows associated with that source-to-sink pair. Response Factors are flowgate-specific in the sense that every source-to-sink transaction will have a distinct Response Factor for each monitored flowgate. Thus, each individual Response Factor represents the percentage of power flow from a specific source-to-sink transaction that impacts a specific flowgate.]To implement transaction-specific Response Factors, Response Factors are calculated for each generator that is directly interconnected with the [Entergy transmission system]**Transmission System**, including all generators within the Entergy [control area]**Control Area**, regardless of ownership or affiliation. Response Factors are also calculated, on an as needed basis, for other generators that are located in such close electric proximity to the [Entergy transmission system]**Transmission System** that they have a specific impact on [that system (*e.g.*, "border" generating units that are located in a non-Entergy control area but are interconnected in

close proximity to the Entergy transmission system)]the Transmission System. Response Factors are also calculated, on an as needed basis, for [control areas]Control Areas that are directly interconnected to the [transmission system]Transmission System and are applied to [transmission service requests]TSRs from generators that do not have specific Response Factors. The RFCalc software utilizes state estimator models to calculate Response Factors in the Operations and Planning Horizons, while the ICT uses off-line planning models developed by the Transmission Provider and commercial power flow applications, such as PSS/E and MUST, to calculate Response Factors in the Study Horizon.

[5.2]5.2 Updating Response Factors

Response Factors are resynchronized on the same basis as AFC values, *i.e.,* every hour during the Operating Horizon, at least every day (four times a day) for the Planning Horizon, and no less than every month (currently weekly) during the Study Horizon. Resynchronizations [can]may occur more frequently if necessary[, but do not occur less frequently.].

[5.3]5.3 Response Factors for Generators Outside of the Entergy Control Area

For generators outside of the Entergy [control area]Control Area, Response Factors will be calculated for the non-Entergy [control areas]Control Areas. These Response Factors will be used to evaluate service requests from each generator in the non-Entergy [control area]Control Area, unless a generator-specific Response Factor has been calculated for a ["]border["] generating unit.

For transactions that source in a non-Entergy [control area]Control Area, Response Factors will be calculated for the non-Entergy [control area]Control Area by ramping up available generating facilities in the non-Entergy [control area]Control Area on a modified *pro rata* basis, such that all generating facilities reach their rated maximum outputs (P_{max}) simultaneously. For transactions that sink in a non-Entergy [control area]Control Area, Response Factors will be calculated for the non-Entergy [control area]Control Area by ramping down available generating facilities in the non-Entergy [control area]Control Area on a modified *pro rata* basis, such that all generating facilities reach their rated minimum outputs (P_{min}) simultaneously.

Generator-specific Response Factors will be calculated on an as needed basis for ["]border["] generating units, *i.e.*, generating facilities that are located on other transmission systems/[control areas]Control Areas and are also in "close electric proximity" to the [Entergy transmission system. Because border generating facilities are either directly interconnected with the Entergy transmission system, or are interconnected within one or two busses of the Entergy transmission system, the impact of transfers from those facilities is typically different from the impact of other generating facilities in the non-Entergy control area, particularly if the non-Entergy control area has a significant number of generating facilities.]Transmission System. The ICT or the Transmission Provider may propose that a generator-specific Response Factor be calculated for a border generating unit consistent with the criteria provided below. Response Factor proposals offered by the Transmission Provider will be subject to review and validation by the ICT and shall be accompanied by any studies, analysis and research conducted by the Transmission Provider. For purposes of this Section 5.3, the review and validation responsibility of the

ICT shall mean that the ICT will review the studies and analysis to verify that the Transmission Provider followed the applicable criteria and that the results reasonably reflect the application and product of such studies and analyses.

To determine whether generator-specific Response Factors should be calculated for border generating facilities, two criteria are applied. First, the generator will have to be in close electric proximity to the [~~Entergy transmission system~~]**Transmission System** such that the generator is either: (1) directly interconnected with the [~~Entergy transmission system~~]**Transmission System**, but located in a different [~~control area~~]**Control Area**; or (2) interconnected with the [~~transmission system~~]**Transmission System** of another transmission provider within one or two busses of the [~~Entergy transmission system~~]**Transmission System**. Second, there will have to be a significant discrepancy between the Response Factors for all other generators in the non-Entergy [~~control area~~]**Control Area** and the Response Factors for the specific border generating facility in question.

[~~5.4~~]5.4 Response Factor Cutoff

In order to evaluate whether a particular service request will use all, some, or none of the AFC for a particular flowgate, RFCalc, State Estimator models and off-line planning models are used to calculate Response Factors. [~~Like Outage Transfer Distribution Factors, the~~]**The** Response Factors generated by Transmission Provider's AFC process measures the power flow impact that each source-to-sink transaction has on each flowgate for the post-contingency configuration of the system. If the power flow impact of particular [~~transmission service request~~]**TSR** has an insignificant impact on a flowgate, that flowgate is not monitored when evaluating the request. To determine whether a flowgate is significantly impacted by a particular [~~service request~~]**TSR**, a Response Factor threshold of 3% is applied. Only **flowgates with** Response Factors at or above the 3% threshold will be considered when determining whether to approve the [~~transmission service request~~]**TSR**. Thus, if the Response Factor for a particular flowgate is less than 3%, then the AFC process will not consider the flowgate when determining whether service should be granted. If the Response Factor for a particular flowgate is equal to or greater than 3%, and the AFC value indicates that the flowgate is one of the [~~most limiting flowgates~~]**Most Limiting Flowgates** for that transaction, then the flowgate will be evaluated to determine whether the particular [~~service request~~]**TSR** should be granted.

[~~5.5~~]

5.5 Modified Response Factor Cutoff

If operating conditions indicate that a revision to the Response Factor threshold is necessary to enable accurate representation of system transfer capability and thereby maintain system reliability, then the Transmission Provider will reevaluate this threshold with notice to ICT. All changes to the Response Factor threshold will be filed with FERC.

[1][6][OASIS Automation and Evaluating Service Requests]

6. OASIS AUTOMATION AND EVALUATING TSRs

[OASIS Automation is the tool]Transmission Provider has developed an automated process that [will]automatically [process requests for transmission service under the AFC process. OASIS Automation is a software product developed by AREVA and maintained by the]processes requests for Transmission Service using a flow-based approach to determine AFC for monitored flowgates ("OASIS Automation"). OASIS Automation is integrated with Transmission Provider's EMS and State Estimator, and uses power flow models developed from the real-time system. OASIS Automation will be used as the link between the AFC calculation process and the reserving and scheduling of [transmission service]Transmission Service under the [Entergy OATT]Tariff. As individual [transmission service requests]TSRs are received, OASIS Automation applies the applicable Response Factors to determine the impact new requests will have on the relevant flowgates and approves or denies the request based on that impact. The ICT determines the final status of each TSR based on the information provided by OASIS Automation.

[6.1]6.1 Flowgates Used to Evaluate Requests

Although the AFC process will monitor approximately 300-500 flowgates, OASIS Automation will use a more limited set of flowgates, as determined by RFCalc, to evaluate individual service requests. When evaluating individual service requests, OASIS Automation will only consider those flowgates that are: (1) "significantly impacted" by the request at issue, *i.e.*, those flowgates with a Response Factor equal to or greater than 3%; and (2) the ["most limiting flowgates" for the request at issue, i.e. the fifteen flowgates with the lowest effective ATC values]Most Limiting Flowgates. Thus, to determine which flowgates should be evaluated for a particular source-sink combination, RFCalc will: (1) ignore all flowgates with a Response Factor of less than the Response Factor cutoff of 3%; and (2) will select from the remaining flowgates the fifteen flowgates with the lowest effective ATC values. The list of flowgates used to evaluate a particular service request will be redetermined during each resynchronization.

[The reason for limiting the number of flowgates used to evaluate individual service requests is driven by performance requirements. A large number of flowgates results in additional data transfers and lengthened computation time, both of which lead to slower response times by the automation process. This adverse impact on response times is particularly increased in the Operating and Planning Horizons where the frequency of resynchronizations is high and is reduced in the Study Horizon where the frequency of resynchronization is once a month.

Nevertheless, to implement the AFC process, the Transmission Provider has determined the initial Master List used to evaluate service requests in all horizons under the methodology described above.]

[6.2]6.2 Approving and Denying Service

As individual transmission requests are submitted over OASIS, OASIS Automation will apply the appropriate Response Factors to each request in order to evaluate the impact of the request on the most-limiting, significantly-affected flowgates. The amount of capacity requested will be multiplied by the Response Factor for a particular flowgate. The product of the requested capacity and the Response Factor will represent the additional loading impact of the new service on the flowgate and will be subtracted from the AFC value for that flowgate. As discussed above, this process will be applied to the [top 15 limiting flowgates]**to the Most Limiting Flowgates**. If the AFC for all the flowgates remains positive or equal to zero after being reduced to account for the new transaction, the request will be approved. If the AFC value on any of the flowgates becomes negative or otherwise exceeds the rated capability of the facilities in question, then the request will be denied, unless [transmission]service of a lower priority may be preempted to bring the AFC value back to zero or positive. The preempting of service with a lower priority will be conducted pursuant to [the preemption principles in FERC's Order No. 638 or its successor.]**governing FERC policies.**

[6.3]6.3 Pmax and Interface Limits

Regardless of the applicable AFC values, accepted [transmission service requests]**TSRs** from a particular generator shall not exceed the maximum output of that generator. Additionally, the amount of [transmission service]**Transmission Service** available across a [control area]**Control Area** interface can not exceed the total interface rating between the two [control areas]**Control Areas**. Consistent with NERC Operating Policies and operating agreements, the capacity between these interfaces is rated. This limit is typically defined by the thermal limit of all transmission facilities that define the interface. Other [control area]**Control Area** interfaces may be limited based upon the maximum generation capability or load of that neighboring [control area]**Control Area**. Both the Pmax and Interface limits will be honored in the AFC process through a proxy flowgate. To the extent that the service request exceeds either the Pmax or interface limit, the proxy flowgate will appear as one of the [most limiting flowgates]**Most Limiting Flowgates** for that particular transaction.

[6.4]6.4 Redirect Requests [and Displacement]

Requests to redirect all or a portion of a firm transmission reservation from an alternate point-of-receipt (source) or to an alternative point-of-delivery (sink) on a firm basis is evaluated in the following manner. First, the [fifteen flowgates most limited]**Most Limiting Flowgates** by each request (the original request and the redirect request) are identified. Next, the AFC values are used to separate the flowgates into two groups. Group 1 includes flowgates that have an AFC value that is less than or equal to zero *and* are common to both requests. Group 2 includes the remaining flowgates identified in the list of the [fifteen flowgates most limited]**Most Limiting Flowgates** by the redirect request. Next, the current impact of the

original request is removed from the AFC value of the flowgates in both groups (the AFC value is increased by the capacity of the request multiplied by the response factor of each flowgate). Note that the current impact of the original request may differ from the impact originally evaluated because power flows may have changed since the original request was accepted. The impact of the redirect request is then calculated and evaluated as follows:

- If the impact of the redirect request causes the AFC of any flowgate in Group 1 to decrease, the redirect request will be denied.
- If the AFC value of any flowgate in group 2 is less than or equal to zero, before applying the impact of the redirect request, the redirect will be denied.
- If the impact of the redirect request causes the AFC of any flowgate in Group 2 to drop below zero, a counteroffer may be made for a MW amount equal to the MWs that would cause the AFC of the most limited flowgate (*i.e.*, the flowgate with the largest negative AFC value) in Group 2 to equal zero.
- In all other circumstances, the redirect request will be accepted.

[~~Network customers can use the Redirect capabilities of OASIS as a displacement option to substitute a source of an existing network resource reservation with a new network resource.~~]

7. SCENARIO ANALYZER[~~7~~][~~Scenario Analyzer~~]

[~~7.1~~]7.1 Introduction

[~~Entergy provides a tool that~~]**The Scenario Analyzer** allows transmission customers to[~~instantaneously~~] evaluate transfer capability without actually submitting an OASIS request.[~~This tool – known as the Scenario Analyzer – is a part of the OASIS and allows customers to enter potential transmission service requests for analysis of transfer capability without submitting actual requests over Entergy's OASIS.~~] The Scenario Analyzer provides customers with an immediate response by performing the same flow-based review that is used by OASIS Automation to determine whether actual service requests can be accommodated. If sufficient AFC exists, the Scenario Analyzer notifies the customer if sufficient ATC is available for the proposed request. If sufficient AFC does not exist, the Scenario Analyzer provides the [~~transmission customer~~]**Transmission Customer** the following information: all constrained flowgates, the hour(s) when the constraints exists, the amount of flowgate capacity available, and the transfer capability that is available. However, because the Scenario Analyzer does not submit an actual service request over OASIS, it does not decrement flowgate AFC. The Scenario Analyzer uses the same flow-based engine as OASIS Automation.

There are two evaluation options under the Scenario Analyzer. The original Scenario Analyzer ("Analyze Operating AFC" on OASIS) provides customers with AFC information that reflects all queued requests with a status of Confirmed, Accepted, Counteroffer, and Study taken into account. The second Scenario Analyzer option ("Analyze Confirmed AFC" on OASIS) provides customers with AFC results (i.e. decrements to the AFC) based only on confirmed reservations.

[~~As of March 2005, transmission customers have an option of two Scenario Analyzers. The original Scenario Analyzer evaluates potential requests using all transmission serviced reservation requests as a basis for modeling AFC. The second Scenario Analyzer only evaluates confirmed reservations and does not include reservation requests in its analysis.~~]

[~~7.2~~]7.2 How to use the Scenario Analyzer

The Scenario Analyzer is an OASIS module that allows Transmission Customers to evaluate availability on certain designated constrained facilities for the Source and Sink pair, but does not decrement ATC since no request has been submitted. Information is entered on a form for:

Source name
Sink name
POR name
POD name
Capacity type
Begin time (for each time segment)
End time (for each time segment)
Capacity value (for each time segment)

After entering information in the submit request form on OASIS, 'ANALYZE OPERATING AFC' or 'ANALYZE CONFIRMED AFC' is selected to view ATC without actually submitting a request for service. A request for service would be issued to OASIS if the SUBMIT option were chosen after completing the form. The resulting display will provide the user with a profiled path ATC for the duration of the request, and provide all limiting constraints for the different time periods. The customer can then select the SUBMIT button, provided on the Scenario Analyzer Results page, to submit the request as a valid request, regardless of the results of the analysis request.

User certification is required for access to the Scenario Analyzer.

[~~1~~]

8. SYSTEM IMPACT STUDIES[~~8~~][~~System Impact Studies~~]

A System Impact Study [~~(SIS)~~]is an in-depth analysis of whether a request for [~~transmission service~~]**Transmission Service** can be reliably accommodated. System Impact Studies are conducted to assess the impact of a request for service when the request cannot be accommodated based on the initial analysis of AFC.

If the AFC process indicates that [~~transmission service~~]**Transmission Service** is not available, the ICT will conduct – at the request of the [~~transmission customer~~]**Transmission Customer** – a transaction-specific System Impact Study that will examine the potential for transmission system upgrades to increase the applicable AFC values. Because the AFC process already provides source-to-sink analysis based on the most up to date information available, these System Impact Studies will be focused on system upgrades, taking into account the lead time required to construct new [~~transmission system~~]upgrades. Long-term [~~transmission service requests~~]**TSRs** and short-term [~~transmission service requests~~]**TSRs** for time periods beyond the Study Horizon will continue to be evaluated under the System Impact Study process.

The ICT will also evaluate requests for [~~displacement of network resources~~]**undesignation of Network Resources** using the [~~SIS~~]**System Impact Study** process. The request for [~~displacement~~]**undesignation** can be submitted over the OASIS by indicating the resource(s) that will be used to displace the [~~network resource~~]**Network Resource**. If the study shows that the displacement can be accommodated reliably, **taking proper account of all competing TSRs of higher priority,** the appropriate amount of network service will be [~~recalled~~]**undesignated** from the displaced resource.

Further information regarding System Impact Studies can be found in [~~Entergy's System Impact Study and Facilities Study Manual~~]**Attachment D to the Tariff**.

[~~1~~][~~9~~][~~Informational Postings and Data Archive~~]
9. INFORMATIONAL POSTINGS AND DATA ARCHIVE

[~~9.1~~]9.1 Models [~~posted~~]Posted on OASIS

The Transmission Provider will post the following information related to the power flow models used to calculate AFC.

1. A daily peak model for each day of the Day 1- 31 time frame

2. Four hourly models for each day for the Day 1-7 time frame

The Transmission Provider will supply a monthly peak model for each month of the Month 2-18 time frame to the ICT. The ICT will review and validate the monthly models as described in Section 3.1 above and will post that information related to the power flow models used to calculate AFC.

The daily models will be refreshed at least daily to maintain a rolling 31-day posting. Similarly, the monthly models will be refreshed at least monthly to maintain a rolling 18 month posting. The hourly models are randomly selected and represent an hour within a six-hour window of each day. Model 1 represents any hour between hour 0000 and hour 0600, model 2 represents any hour between hour 0700 and 1200, model 3 represents any hour between hour 1300 and 1800, and model 4 represents any hour between 1900 and 2300. Only the six-hour window of the model is disclosed, not the exact hour of the model. All power flow models will be posted in the Power Technologies Inc (PTI) Version 26 RAWD format.

[~~9.2~~]

9.2 Input files

From the monthly models, the Transmission Provider will also provide a subsystem file that defines all sources and sinks used for calculating AFC values, and such data will be posted by the ICT. User certification is required for access to this data.[
]

The Transmission Provider also posts the following informational files related to AFC:

- A file containing response factors of [~~top 15 flowgates~~]**the Most Limiting Flowgates** per path and base flow for each flowgate for each time point. The file is refreshed hourly.
- A file containing the Effective ATC value of each path for each time point.
- A file containing the list of generators used as the Entergy [~~control area~~]**Control Area** sink for response factor calculation. The file also lists the participation factors for these generators.
- A subsystem files defining all sources and sinks used to calculate AFC.
- A list of flowgates with TTC and a revision log for all flowgate changes that are provided by the Transmission Provider and reviewed and posted by the ICT.

[~~9.3~~]9.3 Transmission [~~outage plans~~]Outages

The Transmission Provider will post on its OASIS a list of all scheduled outages on transmission facilities on the [~~Entergy transmission system~~]**Transmission System**. The posting will include a daily posting for the Day 1 – 31 timeframe and a monthly posting for the Month 2 – 13 time frame.

There are two types of outage postings on the Entergy OASIS:

- The first type of outage posting is an *informational posting* of transmission outages, including outages outside of the Entergy [~~control area~~]**Control Area** that is provided to customers so that they may be aware of planned outages on the [~~Entergy transmission system~~]**Transmission System**. This list is entirely unrelated to the AFC process. It was developed for informational purposes and is not used for modeling purposes. This list is taken directly from Entergy's outage scheduling software, known as "TAORS."
- The second type of outage posting is the list of outages contained in the hourly AFC power flow models posted on OASIS. RFCalc imports these outages from TAORS **and COS**, but only uses those outages that are relevant for the particular time period being modeled. This ensures that RFCalc has updated outage information each time that RFCalc resyncs or calculates new AFC values. This outage list was not developed to provide customers with information regarding all planned outages during a particular month, and instead is used to model the system at a particular point in time.

[While similar data on outages is maintained in both systems, the data is used for different purposes. TAORS posts outage data intended to make users aware of planned outages throughout transmission systems. This information is not utilized in creating models and is not related to the AFC process. In maintaining accurate and updated outage information, OASIS outage postings are used to calculate hourly AFC power flow models. RFCalc imports these outages from TAORS, but only uses those outages that are relevant for the particular time period being modeled. Although the two sets of outage postings contain most of the same outages, there are several reasons why the two postings can differ. These reasons include: (1) the date on which the model was created may be different from the date on which the informational posting was made; (2) the need to manage non-concurrent outages; and (3) the fact that the monthly model postings represent peak hour of the month (and thus the outages scheduled during that hour), while the informational postings may contain additional outages that may not span the entire month. Thus, there will always be some differences between the outages contained in particular AFC models and the list of models posted for informational purposes on OASIS.]

[9.4][Data Archive]

[The Transmission Provider retains data, models and information about the methodology used for calculations for a period of time in compliance with FERC regulations. All data files necessary to re-evaluate system planning studies or network impact studies will be archived based on a two year retention time. This data will be date stamped and stored in a retrievable format. This data can be made available upon reasonable request.]

10. REGIONAL COORDINATION OF TRANSFER CAPABILITY DETERMINATIONS[~~10~~][~~Regional coordination of transfer capability determinations~~]

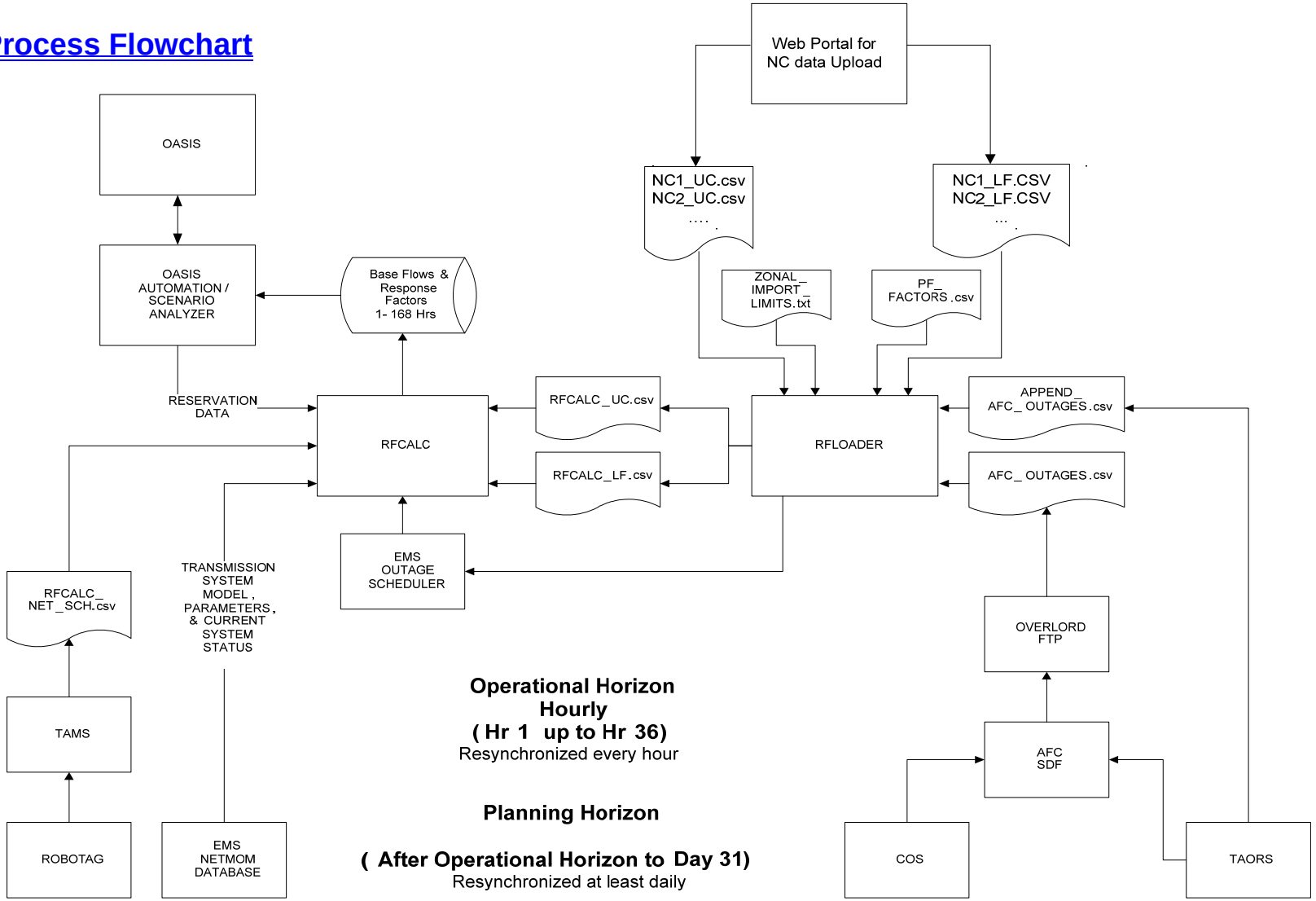
In order to produce credible constrained facility AFCs, the ICT must consider the effects of system conditions and Transmission Service that has been sold by other transmission providers. The ICT will honor the constrained facility limits of other transmission providers to the extent these transmission providers honor their own constrained facilities. To consider conditions on other systems, Transmission Provider may exchange near-term planning information, reservations and schedules with other transmission providers in order that the power flow models contain details for both their system and Transmission Provider's Transmission System. This will allow the Transmission Provider and other transmission providers to consider the effects of parallel flows as they evaluate TSRs. Transmission Provider may also periodically exchange constrained facility AFC with other transmission providers.

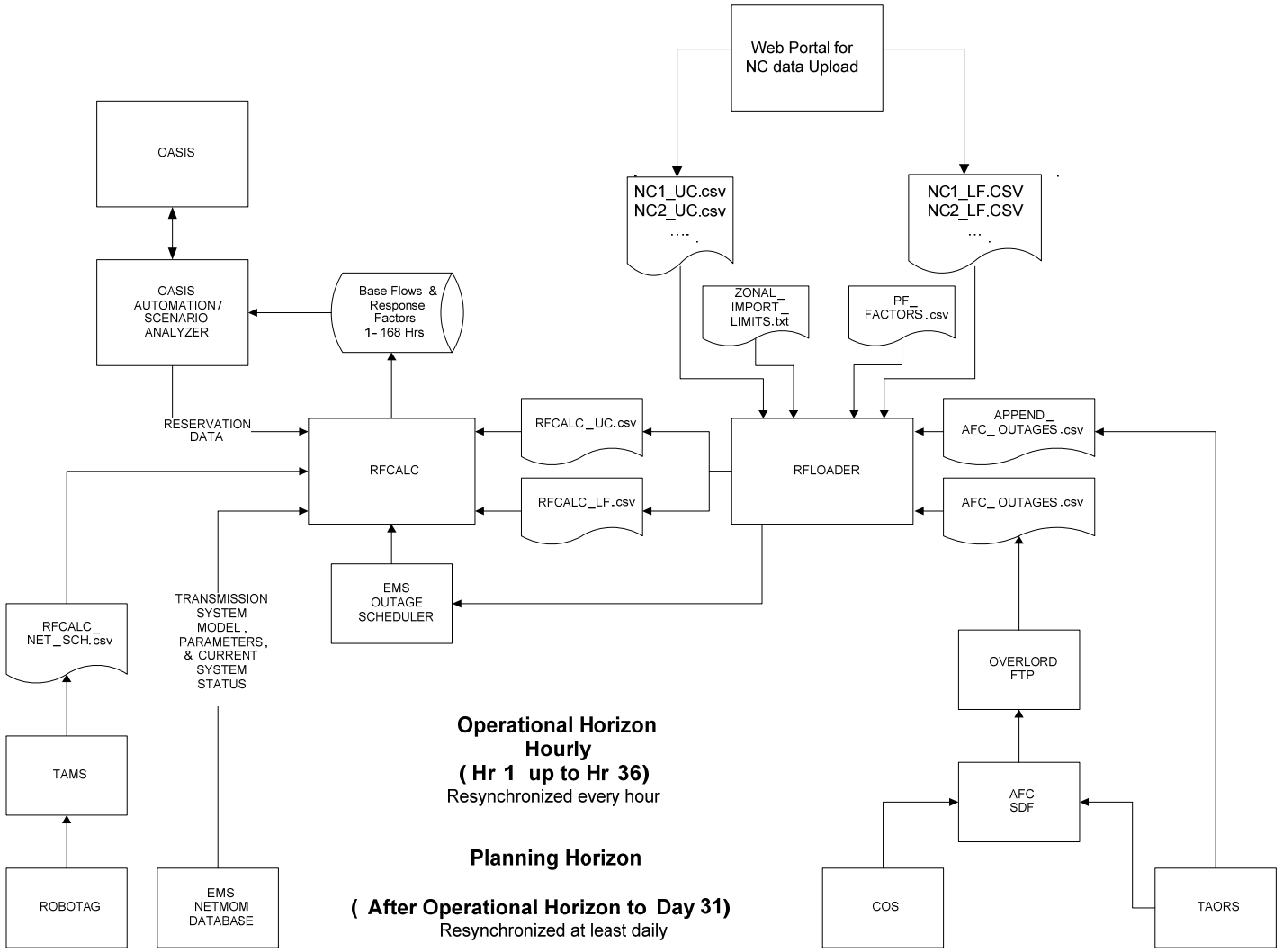
The Transmission Provider will continue to coordinate transfer capability values with neighboring utilities in accordance with NERC and Regional Reliability Council criteria. Seasonal reliability models will continue to be developed on a Regional Reliability Council basis. Source assumptions will be made in order to coordinate transfer capability values with the neighboring transmission providers. Pursuant to Section 6 of the Transmission Service Protocol, the ICT will participate in the regional model development process for the SERC region with the Transmission Provider**.**

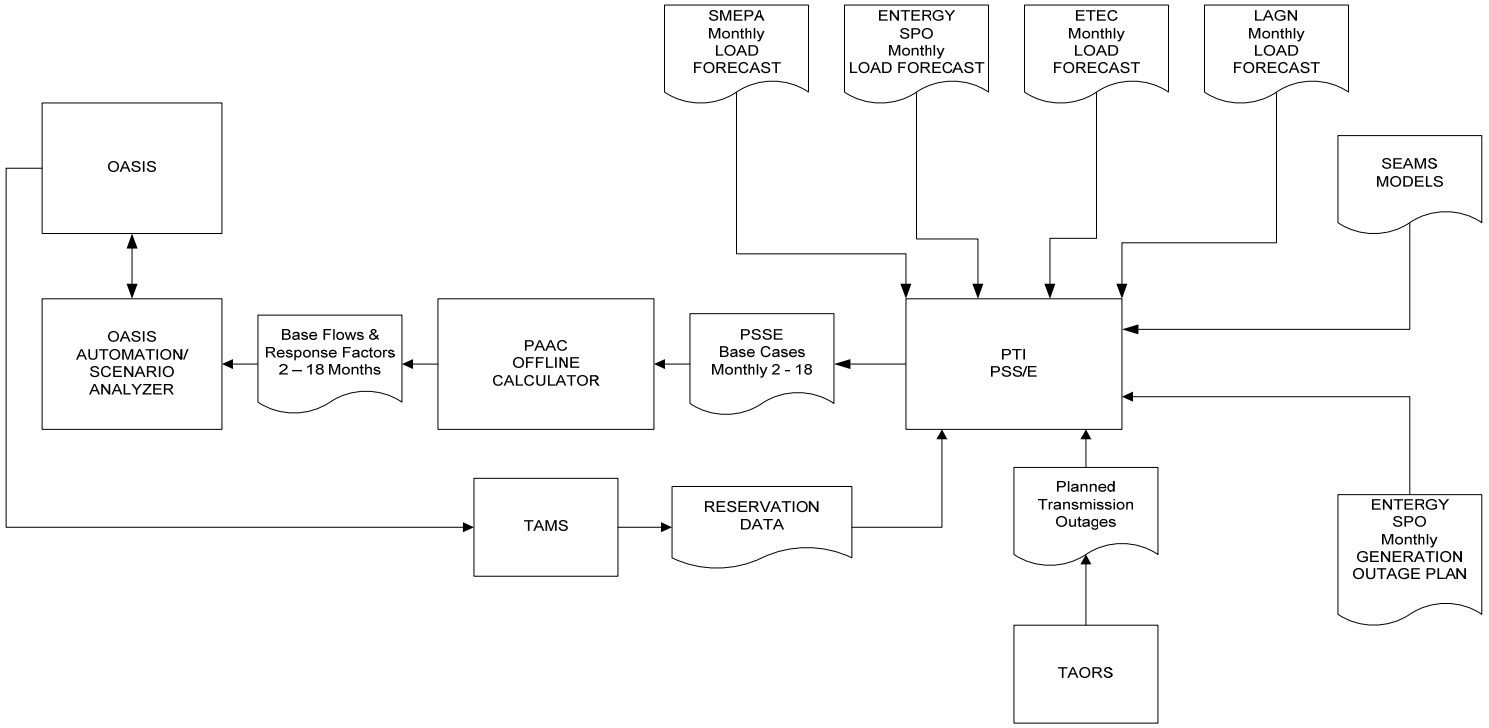
Where necessary, the Transmission Provider will coordinate reservation and schedule information with neighboring [~~control areas~~]**Control Areas** so that transfer capability can be properly coordinated. The AFC process will also honor flowgate limits on neighboring transmission systems when constraints are experienced.

Exhibit 1 to Attachment C

AFC Process Flowchart




Web Portal for NC data Upload
OASIS
NC1_UC.csv NC2_UC.csv ....
NC1_LF.CSV NC2_LF.CSV ...
OASIS AUTOMATION / SCENARIO ANALYZER
Base Flows & Response Factors 1- 168 Hrs
ZONAL_ IMPORT_ LIMITS.txt
PF_ FACTORS.csv
RESERVATION DATA
RFCALC
RFCALC_UC.csv
RFCALC_LF.csv
RFLOADER
APPEND_ AFC_ OUTAGES.csv
AFC_ OUTAGES.csv
EMS OUTAGE SCHEDULER
RFCALC_ NET_SCH.csv
TRANSMISSION SYSTEM MODEL, PARAMETERS, & CURRENT SYSTEM STATUS
OVERLORD FTP
TAMS
AFC SDF
ROBOTAG
EMS NETMOM DATABASE
COS
TAORS
Operational Horizon
Hourly
(Hr 1 up to Hr 36)
Resynchronized every hour
Planning Horizon
(After Operational Horizon to Day 31)
Resynchronized at least daily



Study Horizon
Monthly
(Month 2 to Month 18)
Resynchronized at least once a month

Exhibit 2 to Attachment C

Applications

Application	Purpose	Runs	Inputs	Outputs
AFC SDF	Retrieves Transmission Branch and Section Outages from AORS (Planned) and COS (Unplanned). The application produces a formatted file that is sent to the EMS servers where RFLOADER uploads the information into EMS OUTAGE SCHEDULER	Every Hour	AORS and COS	AFC_OUTAGES.csv
AORS	This application is used within the TRANSMISSION Outage Planning Process. Contains all planned Branch/Section and Equipment Outages for the Entergy Transmission System	Constantly	Outage Planning Process	See AFC SDF
COS	This application is used to report all outages on the Entergy Transmission System.	Constantly	Outage Reporting Process	See AFC SDF
RFLOADER (Oper. & Planning Horizon)	Uses information from Entergy SPO, other Network Customers and external Control Areas to produce the Unit Commitment and Load Forecast File for RFCALC. Also, RFLOADER loads outage information into EMS Outage Scheduler for RFCALC's use.	Every Hour	UC and LF files from NCs and SPO Zonal_import_limits.txt Pf_factors.csv AFC_OUTAGES.csv APPEND_AFC_OUTAGES.csv EMS RFLOADER DATABASE	RFCALC_UC.csv RFCALC_LF.csv Populates EMS OUTAGE SCHEDULER
RFLOADER	Used to store information on which	Constantly	Information provided by	Static Information used by

DATABASE	**generator units are on AGC and what units are within the WOTAB and AMITE SOUTH load zones.**		**Transmission Operational Planning**	**RFLOADER to perform its operations**
EMS OUTAGE SCHEDULER	**This application is used to store Outage data for use by RFCALC. The interface to insert data into EMS OUTAGE SCHEDULER was more trivial than interfacing directly to RFCALC to provide outage data. Since EMS OUTAGE SCHEDULER and RFCALC already had an interface, EMS OUTAGE SCHEDULER was utilized to provide current outage information for AFC calculations.**	**Constantly**	**AFC_OUTAGES.csv APPEND_AFC_ OUTAGES.csv**	**Provides interface to RFCALC for outage information**
RFCALC	**Calculates Base Flows and Response Factors on Entergy's Defined Flowgates.**	**Every Hour/Every six hours**	**RFCALC_UC.csv RFCALC_LF.csv EMS OUTAGE SCHEDULER RFCALC_NET_SCH.csv NETMOM Transmission System Model Information NETMOM Asset Parameters Information NETMOM Current Equipment Status Information OASIS AUTOMATION's Reservation Information**	**Base Flows & Response Factors provided to OASIS AUTOMATION.**
EMS NETMOM DATABASE	**Part of AREVA's Network Applications and is used to define the Transmission**	**Constantly**	**Network Modeling Process**	**NETMOM Transmission System Model Information**

	System model and parameters (i.e. impedance). Along with the system network topology structure, the NETMOM Database provides current equipment status from SCADA to be used in hours 1 to 3 to determine system network configuration in these hours.			NETMOM Asset Parameters Information NETMOM Current Equipment Status Information
ROBOTAG	Entergy's application for managing the NERC Tagging Processes. Provides the scheduling information against firm reservations.	Constantly	NERC Tagging Process	Scheduling Information provided to TAMS
TAMS (Hours 1 – 168)	Entergy's application for storing Reservation information. Transmission Planning uses this reservation data to create PTI PSS/E power flow models.	Constantly	OASIS Reservation Information	Provides Reservation Data spreadsheet used by Transmission Operational Planning to create PSS/E power flow models.
TAMS (Day 8 – Study Horizon)	Entergy's application for storing Reservation information. Interfaces to Robotag to provide scheduling information against firm reservations.	Constantly	OASIS Reservation Information	RFCALC_NET_SCH.csv
OASIS AUTOMATION/ SCENARIO ANALYZER	Entergy application for manage the Transmission Request Process. Scenario Analyzer is used by marketers to check for the availability of Transmission Capacity.	Constantly	OASIS Reservation Information	Provides Reservation Information to RFCALC
OASIS	The application marketers use to receive information on Entergy's Transmission System and submit Transmission Capacity Requests (Reservations).	Constantly	Transmission Information Postings Transmission Request Submissions	Reservation Information

PTI PSS/E	**Power Flow Modeling application used to create power flow models for Entergy Transmission's Daily models.**	**Daily**	**Entergy SPO's Weekly Unit Commitment, Load Forecast and Generation Outages Plan** **Entergy SPO's Monthly Unit Commitment, Load Forecast, and Generation Outage Plan** **AORS Planned Transmission Outages MAXLS.xls**	**Daily Base Cases (Power Flow solutions)**
UC AUTO	**Prepares the zonal import limit file for RFLOADER**	**Daily**	**PTI PSS/E Daily Base Case Solutions**	**zonal_import_limits.txt**
PAAC OFFLINE CALCULATOR	**Uses PTI PSS/E solved power flow models to produce flow gate base flows and response factors for the Study Horizon months.**	**Weekly**	**PSS/E Monthly Base Case Solutions**	**Flow gate Base Flows and Response Factors file that will be uploaded by OASIS Automation**

Inputs/Outputs

Input/Output	Purpose	Produced	Provided By
ZONAL_IMPORT_LIMITS.txt	Provides information on Import Limit to the WOTAB and AMITE SOUTH load zones along with a percentage of Entergy's Load that WOTAB and AMITE SOUTH constitute	Daily	TRANSMISSION OPERATIONAL PLANNING
PF_FACTORS.csv	Provides generator participation factors for 1 to 168 hours and 8 to 31 days that are included in the RFCALC_UC.csv file.	Daily	TRANSMISSION OPERATIONAL PLANNING
AFC_OUTAGES_append.csv	Equipment, External Control Areas, and Generator Outages that cannot be obtained through AORS or COS	Daily	TRANSMISSION TECHNOLOGY DELIVERY
AFC_OUTAGES.csv	Transmission Branch/Section , Auto Transformer outages that are planned (AORS) and unplanned (COS)	Hourly	AFC SDF
RFCALC_NET_SCH.csv	Aggregation of Schedule Information by hour and OASIS Source/sink that use Firm Transmission Reservations. Information only for Operational Horizon hours.	Hourly	TAMS
RFCALC_UC.csv	The Unit Commitment file required by RFCALC that is created by RFLOADER from UC inputs.	Hourly	RFLOADER
RFCALC_LF.csv	The Load Forecast file required by RFCALC that is created by RFLOADER from LF inputs.	Hourly	RFLOADER
MAXLS.xls	Provides information on Unit Commitment for Entergy's Hydro Units.	Weekly	ENTERGY SPO
TAMS Reservation Data	A file of reservations from OASIS that need to be modeled into the PSS/E power flow models	Daily for Oper/Planning Weekly for Study	TAMS
AORS Outage Data	A file of outages from the approved planned outages in AORS	Daily	AORS

PSS/E Base Cases	The results of a solved power flow model from PTI PSS/E	Daily	PTI PSS/E
PF_FACTORS.csv	Provides generator participation factors for 1 to 168 hours and 8 to 31 days that are included in the RFCALC_UC.csv file.	Daily	TRANSMISSION OPERATIONAL PLANNING
APPEND_AFC_OUTAGES.csv	Equipment, External Control Areas, and Generator Outages that cannot be obtained through AORS or COS	Daily	TRANSMISSION TECHNOLOGY DELIVERY
Entergy SPO Monthly Load Forecast	Provides the Load Forecast for Entergy SPO's network load	Yearly	ENTERGY SPO
SMEPA Monthly Load Forecast	Provides the Load Forecast for SMEPA's embedded network load	Yearly	SMEPA
ETEC Monthly Load Forecast	Provides the Load Forecast for ETEC's embedded network load	Yearly	ETEC
LAGN Monthly Load Forecast	Provides the Load Forecast for LAGN's network load	Yearly	LAGN
Entergy SPO Monthly Generator Outage Plan	Provides the generation outage plan for Entergy SPO's network generators	Updated when changes occur	ENTERGY SPO
Planned Transmission Outage Data	A file of outages from the approved planned outages in AORS	Monthly	AORS
SEAMS Models	A collaborative effort between Entergy and External Control Areas to produce in PSS/E an extensive model of the SERC interconnection, with monthly updates to Southern Company and Tennessee Valley Authority Control Areas	Monthly	TRANSMISSION OPERATIONAL PLANNING
Monthly PSS/E Base Cases	The results of a solved power flow model from PTI PSS/E	Weekly	PTI PSS/E
Base Flows & Response Factors 2 – 18 Months	The results of the PAAC OFFLINE Calculator used to by OASIS Automation to publish AFC values.	Weekly	PAAC OFFLINE Calculator

[~~11~~]APPENDIX A: Historical Reservation Data used for Determination of Counterflows

	Percentage of Reservations Scheduled in Real Time					
	Firm PTP	Firm Network	Firm total	Non-Firm PTP	Non-Firm Network	Non-Firm total
January-2003	35	24	28	102	67	78
February-2003	31	22	26	108	69	78
March-2003	30	21	24	92	61	71
April-2003	27	24	26	99	51	58
May-2003	28	27	27	86	54	60
June-2003	29	23	24	113	55	62
July-2003	33	29	30	87	54	60
August-2003	39	29	31	80	54	60
September-2003	39	25	27	98	70	75
October-2003	43	22	25	96	72	75
November-2003	43	20	24	100	83	86
December-2003	46	21	25	101	69	75
TOTAL	35	24	27	95	62	69

[~~1~~][~~12~~][~~APPENDIX B: Master Flowgate List Citing Source and Criteria~~]

[Mapname]	[Description]	[LE Bus]	[CE Bus]	[FG Rating (MVA)]	[FGID]
[ACHMON_WGWAT]	[ALCHEM-MONCHEM 138 FTLO WILLOW GLEN-WATERFORD 500]	[98255,98271]	[98246,98539]	[225]	[FG_001]
[ACSCN_RICSCT]	[ACADIA-SCANLAN 138 FTLO RICHARD-SCOTT 138]	[98111,98112]	[98108,98130]	[209]	[FG_002]
[ADDTIG_CHTAI]	[ADDIS-TIGER 230 FTLO CHOCTAW-AIR LIQUIDE TAP 230]	[98250,98362]	[98263,98474]	[422]	[FG_003]
[ADDTIG_WEBCA]	[ADDIS-TIGER 230 FTLO CAJUN-WEBRE 500]	[98250,98362]	[97301,98430]	[422]	[FG_004]
[ALLHOR_FRPXF]	[ALLEN-HORN LAKE 161 FTLO FREEPORT 500/230]	[18022,98702]	[18009,98707]	[226]	[FG_005]
[AMLHLB_HBCYP]	[AMELIA-HELBIG 230 FTLO HARTBURG-CYPRESS 500]	[97696,97689]	[97717,97691]	[685]	[FG_006]
[ANDIN_MCLK_D]	[INDIANOLA-ANDRUS 230 FTLO MCADAMS-LAKEOVER 500]	[98769,98759]	[98808,98935]	[462]	[FG_007]
[ANDIND_ANDBG]	[ANDRUS-INDIANOLA 230 FTLO ANDRUS-BAGBY 230]	[98759,98769]	[98759,99306]	[462]	[FG_008]
[ANDIND_ANDCL]	[ANDRUS-INDOLA 230 FTLO ANDRUS-CLNTON INDUSTRIAL 230]	[98759,98769]	[98759,98893]	[462]	[FG_009]
[ANDIND_MCLAK]	[ANDRUS-INDOLA 230 FTLO LAKEOVER-MCADAMS 500]	[98759,98769]	[98935,98808]	[462]	[FG_010]
[ANGRNV_ANDIN]	[ANDRUS-GREENVILLE 115 FTLO ANDRUS-INDIANOLA 230]	[98760,98750]	[98759,98769]	[319]	[FG_011]
[ANUFTS_PLSHL]	[ANO-FT SMITH 500 FTLO ANO-PLEASANT HILL 500]	[99486,55305]	[99486,99197]	[1299]	[FG_012]
[ARKFTSM_ARK5]	[ANO-FT SMITH 500 FTLO ANO 500/161]	[99486,55305]	[99486,99487]	[1299]	[FG_013]
[ARKHTSP_ARKC]	[ARKLAHOMA-HOTSPRINGS 115 FTLO ARKLAHOMA-CARPENTER]	[99351,99403]	[99351,99355]	[266]	[FG_014]
[ARKHTSP_HSP5]	[ARKLAHOMA-HOT SPRINGS 115 FTLO HOT SPRINGS 500/115]	[99351,99403]	[99402,99403]	[266]	[FG_015]
[ARKPLHL_ARKM]	[ANO-PLEASANT HILL 500 FTLO ANO-MABLEVALE 500]	[99486,99197]	[99486,99565]	[1732]	[FG_016]
[ARXF_ARMABL]	[ANO 500/161 FTLO ANO-MABLEVALE 500]	[99486,99487]	[99486,99565]	[672]	[FG_017]
[ASHCH_COTHOU]	[ASHLAND-CHAUVIN 115 FTLO HOUMA-COTEAU 115]	[98525,97308]	[98523,98524]	[120]	[FG_018]
[B_WLTAL_PERY]	[BAXTER-WILSON-TALLULA FTLO BAXTER-WILSON-PERRYVILLE]	[98938,99154]	[98937,99203]	[199]	[FG_019]
[BAGSUN_WGWAT]	[BAGATELLE-SUNSHINE 230 FTLO WILLOW GLEN-WATERFORD 500]	[98569,98570]	[98246,98539]	[460]	[FG_020]
[BATBAT_MCWP]	[BATESVILLE-BATESVILLE TVA115 FTLO MCADAMS-WESTPOINT]	[98730,18041]	[98808,98700]	[398]	[FG_021]
[BATBS_LSPXFR]	[BATESVILLE-BATESVILLE 115 FTLO LS POWER 230/161]	[18041,98730]	[99900,98729]	[398]	[FG_022]
[BATCOM_BATMO]	[BATESVILLE-COMO 115 FTLO BATESVILLE-MOONLAKE 230]	[98730,98732]	[98729,99680]	[108]	[FG_023]
[BATCUS_INDEL]	[BATESVILLE-CUSHMAN 161 FTLO ISES-DELL 500]	[99798,99808]	[99818,99742]	[310]	[FG_024]
[BATSMRK_ENID]	[BATESVILLE-MARKS 115 FTLO BATESVILLE-ENID 230]	[98730,98731]	[98729,98735]	[108]	[FG_025]

[BAYGEN_MICSM]	[GENTILLY RD-BAYOU SAUVAGE 115 FTLO MICHOUD SOUTH-MICHOUD]	[98670,98669]	[98654,98656]	[175]	[FG_026]
[BEVJAN_MOHAR]	[BEAVER CREEK-JENA 115 FTLO HARTBURG-MT. OLIVE 500]	[99106,99108]	[97717,99162]	[80]	[FG_027]
[BEVXF_WIN230]	[BEAVER CREEK 138/115 FTLO WINNFIELD 230/115]	[50012,99106]	[99113,99112]	[93]	[FG_028]
[BLDFRK_RUSTF]	[BLAND-FRANKS 345 FTLO RUSH-ST. FRANCIS 345]	[30154,96041]	[31669,31773]	[949]	[FG_029]
[BONXFM_SCBON]	[BONIN 230/138 FTLO BONIN-SCOTT 138]	[50303,50304]	[98130,50304]	[300]	[FG_030]
[BRKBET_VLPIT]	[BRKN BW4-BETHEL 138 FTLO VALNT-PITTS 345]	[52814,54054]	[54037,54033]	[96]	[FG_031]
[BSMID_ANOPHL]	[BULL SHOALS-MIDWAY 161 FTLO ANO-PLEASANT HILL 500]	[52660,99825]	[99486,99197]	[162]	[FG_032]
[BVRJ_MCKFR_D]	[BEAVER CREEK-JENA 115 FTLO FRANKLIN-MCKNIGHT 500]	[99106,99108]	[99027,98235]	[80]	[FG_033]
[BVRJE_MCKFRK]	[JENA-BEAVER CREEK 115 FTLO MCKNIGHT-FRANKLIN 500]	[99106,99108]	[98235,99027]	[80]	[FG_034]
[BVRJE_WEBWLS]	[JENA-BEAVER CREEK 115 FTLO WEBRE-WELLS 500]	[99108,99106]	[98430,98109]	[80]	[FG_035]
[BVRXF_MKFR_D]	[BEAVER CREEK 138/115 FTLO FRANKLIN-MCKNIGHT 500]	[50012,99106]	[99027,98235]	[93]	[FG_036]
[BVRXFR_MKFRK]	[BEAVER CREEK 138/115 XFMR FTLO MCKNIGHT-FRANKLIN 500]	[50012,99106]	[98235,99027]	[93]	[FG_037]
[BWLSN_TAL3_D]	[TALULA-BAXTER WILSON 115 FTLO PERRYVILLE-BAXTER WILSON 500]	[99154,98938]	[99203,98937]	[199]	[FG_038]
[BWLVKS_VKSW]	[BAXTER WILSON-SOUTHEAST VICKSBURG FTLO VICKSBURG-VICKSBURG WEST]	[98938,98866]	[98941,98942]	[161]	[FG_039]
[BWTAL_STRPVL]	[BAXTER WILSON-TALULA 115 FTLO PERRYVILLE-STERLINGTON 500]	[98938,99154]	[99148,99203]	[199]	[FG_040]
[BWTL_STRPV_D]	[BAXTER WILSON-TALULA 115 FTLO PERRYVILLE-STERLINGTON 500]	[98938,99154]	[99203,99148]	[199]	[FG_041]
[BYRTRY_FRKRB]	[BYRAM-TERRY 115 FTLO RAY BRASWELL-FRANKLIN]	[98927,98928]	[98930,99027]	[161]	[FG_042]
[CHKDYB_SABCH]	[CHEEK-DAYTON 138 FTLO SABINE-CHINA 230]	[97692,97632]	[97716,97714]	[170]	[FG_043]
[CHKDYT_CHIJA]	[CHEEK-DAYTON 138 FTLO CHINA-JACINTO 230]	[97692,97632]	[97714,97721]	[170]	[FG_044]
[CLDXF_CLKMON]	[CLARKSDALE 230/115 FTLO CLARKSDALE-MOONLAKE 230]	[98854,98723]	[99680,98854]	[250]	[FG_045]
[CLDXF_TUNRIC]	[CLARKSDALE 230/115 FTLO RITCHIE-TUNICA 230]	[98854,98723]	[99651,98718]	[250]	[FG_046]
[CLIJXN_RBELK]	[CLINTON NORTHWEST JACKSON 115 FTLO RAY BRASWELL-LAKEOVER 500]	[98911,98909]	[98930,98935]	[240]	[FG_047]
[CLYML_FCYM_D]	[MOLER-COLY 230 FTLO MCKNIGHT-FANCY 500]	[98420,98391]	[98235,98233]	[462]	[FG_048]
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[CLYVIG_CNBAG]	[COLY-VIGNES FTLO CONWAY-BAGTEL 230]	[98391,97331]	[98259,98569]	[462]	[FG_050]
[CLYWIG_WGWAT]	[COLY-VIGNES 230 FTLO WILLOW GLEN-WATERFORD 500]	[98391,97331]	[98246,98539]	[462]	[FG_051]

[COLVIG_MKFRN]	[COLY-VIGNES 230 FTLO MCKNIGHT-FRANKLIN 500]	[98391,97331]	[98235,99027]	[462]	[FG_052]
[AACLIC_CLYVI]	[A.A.C LICAR 230 FTLO COLY-VIGNES 230]	[98249,98270]	[98391,97331]	[685]	[FG_053]
[AACLIC_MCFRK]	[A.A.C. LICAR 230 FTLO MCKNIGHT-FRNKLN 500]	[98249,98270]	[98235,99027]	[685]	[FG_054]
[CONBAG_WGPOL]	[BAGTELLE-CONWAY 230 FTLO WILLOW GLEN-POLSCAR 230]	[98569,98259]	[98247,98434]	[436]	[FG_055]
[AACLIC_WATXF]	[A.A.C. LICAR 230 FTLO WILLOW GLEN WATERFORD]	[98249,98270]	[98246,98539]	[685]	[FG_056]
[CONCO_PLHGRN]	[CONWAY WEST CONWAY SOUTH 161 FTLO PLEASANT HILL-GRENBRIER 161]	[99510,99485]	[99196,99517]	[223]	[FG_057]
[COTHOU_CHAVE]	[COTEAU-HOUMA 115 FTLO VALENTINE-CHAUVIN 115]	[98523,98524]	[98526,98525]	[227]	[FG_058]
[COULEW_ARKFT]	[COUCH-LEWIS 115 FTLO ANO-FT. SMITH 500]	[99230,99263]	[99486,55305]	[160]	[FG_059]
[COULEW_DOLSH]	[COUCH-LEWIS 115 FTLO DOLET HILLS-SOUTHWEST SHREVEPORT]	[99230,99263]	[50045,53454]	[160]	[FG_060]
[COULEW_ELDLW]	[COUCH-LEWIS115 FTLO ELDORADO-LONGWOOD 345]	[99230,99263]	[99294,53424]	[160]	[FG_061]
[COULEW_ELDXF]	[COUCH-LEWIS 115 FTLO ELDORADO 500/345]	[99230,99263]	[99295,99294]	[160]	[FG_062]
[COWCO_COWSA]	[COW-COLONIAL-ORANGE 138 FTLO COW-SABINE 138]	[97617,97589]	[97617,97705]	[288]	[FG_063]
[CTHOU_VLNWAT]	[COTEAU-HOUMA 115 FTLO WATERFORD-VALENTINE 230]	[98523,98524]	[98537,98527]	[227]	[FG_064]
[CY138_CY500]	[CYPRESS 500/138 FTLO CYPRESS 500/230]	[97691,97690]	[97691,97713]	[750]	[FG_065]
[CY500_CY138]	[CYPRESS 500/230 FTLO CYPRESS 500/138]	[97691,97713]	[97691,97690]	[750]	[FG_066]
[DANMAG_FTARK]	[DANVILLE-MAGAZINE 161 FTLO ANO-FT. SMITH]	[99496,53201]	[99486,55305]	[148]	[FG_067]
[DANMCK500]	[DANIEL-MCKNIGHT 500 KV PTDF]	[15021,98235]		[1732]	[FG_068]
[DANOLA_FSANO]	[OLLA-DANVILLE 115 FTLO ANO-FT. SMITH 500]	[99498,99497]	[99486,55305]	[106]	[FG_069]
[DANOLA_SHMAG]	[DANVILLE-OLLA 115 FTLO SHERIDAN-MAGNET COVE 500]	[99497,99498]	[99333,99450]	[106]	[FG_070]
[DARDAM_FTARK]	[DARDANELLE-DARNDANVILLE DAM 161 FTLO ANO-FT.SMITH]	[52708,99494]	[99486,55305]	[232]	[FG_071]
[DAYCHE_JACXF]	[CHEEK-DAYTON 138 FTLO JACINTO 230/138]	[97692,97632]	[97478,97476]	[170]	[FG_072]
[DAYNLJ_JACCH]	[DAYTON-NEW LONG JOHN 138 FTLO CHINA-JACINTO 230]	[97633,97472]	[97714,97721]	[99]	[FG_073]
[DAYNLJ_JACXF]	[DAYTON-NEW LONG JOHN 138 FTLO JACINTO 230/138]	[97633,97472]	[97478,97476]	[99]	[FG_074]
[DELRUL_CLDEL]	[DELTA-RULEVILLE 115 FTLO DELTA-CLEVELAND]	[98737,98794]	[98737,98726]	[85]	[FG_075]
[DELSH_BXWP_D]	[SHELBY-DELTA 115 FTLO PERRYVILLE-BAXTER WILSON 500]	[98724,98737]	[99203,98937]	[87]	[FG_076]
[DELSHE_BAMNL]	[DELTA-SHELBY SWITCHING STATION 115 FTLO BATESVILLE-MOONLAKE 230]	[98737,98724]	[98729,99680]	[87]	[FG_077]

[DELSHE_BAXWP]	[DELTA-SHELBY SWITCHING STATION 115 FTLO BAXTER WILSON-PERRYVILLE]	[98737,98724]	[98937,99203]	[87]	[FG_078]
[DELSHE_STPEV]	[DELTA-SHELBY SWITCHING STATION 115 FTLO PERRYVILLE-STERLINGTON]	[98737,98724]	[99203,99148]	[87]	[FG_079]
[DELSHE_WMBST]	[DELL-SHELBY 500 FTLO WEST MEMPHIS-BIRMINGHAM STEEL]	[99742,18008]	[99788,18051]	[2165]	[FG_080]
[DELTAL_BAXPV]	[TALULAH-DELHI 115 FTLO BAXTER WILSON-PERRYVILLE]	[99154,99155]	[98937,99203]	[80]	[FG_081]
[DLSH_STPEV_D]	[SHELBY-DELTA 115 FTLO STERLINGTON-PERRYVILLE 500]	[98724,98737]	[99148,99203]	[87]	[FG_082]
[DODDAN_HARMT]	[DODSON-DANVILLE 115 FTLO MT. OLIVE-HARTBURG 500]	[99182,99174]	[99162,99717]	[176]	[FG_083]
[DODDN_HRMT_D]	[DODSON-DANVILLE 115 FTLO HARTBURG-MT. OLIVE 500]	[99174,99182]	[99162,99717]	[176]	[FG_084]
[DODWI_ELDMTO]	[WINNFIELD-DODSON 115 FTLO ELDORADO-MT. OLIVE 500]	[99112,99174]	[99295,99162]	[176]	[FG_085]
[DOLXFM_ELDXF]	[DOLET 345/230 FTLO ELDORADO EHV 500/345]	[50045,50046]	[99295,99294]	[700]	[FG_086]
[DUBBU_WEBWLS]	[DUBOIN-BULL WAREHOUSE 138 FTLO WEBRE-WELLS 500]	[98185,98184]	[98430,98109]	[112]	[FG_087]
[ELDAT1_MCNAT]	[ELDORADO 500/115 FTLO MCNEIL 500/115]	[99295,99293]	[99309,99310]	[448]	[FG_088]
[ELDXF_VALLYD]	[ELDORADO 345/500 FTLO LYDIA-VALIANT 345]	[99294,99295]	[53277,54037]	[717]	[FG_089]
[ELEHVMOLIVE]	[ELDORADO-MT. OLIVE 500 KV PTDF]	[99295,99162]		[1732]	[FG_090]
[ESODMT_EXDNT]	[ESSO-DELMONT 230 FTLO EXXON-DOWNTOWN 230]	[98309,98406]	[98310,98400]	[339]	[FG_091]
[ESODMT_WGCLY]	[ESSO-DELMONT 230 FTLO COLY-WILLOW GLEN]	[98309,98406]	[98390,98246]	[339]	[FG_092]
[ESSDEL_ADTIG]	[ESSO-DELMONT 230 FTLO ADDIS-TIGER 230]	[98309,98406]	[98250,98362]	[339]	[FG_093]
[ESSDEL_WEBCJ]	[ESSO-DELMONT 230 FTLO CAJUN-WEBRE 500]	[98309,98406]	[97301,98430]	[339]	[FG_094]
[ESSDEL_WGPEC]	[ESSO-DELMONT 230 FTLO WILLOW GLEN-PECUE 230]	[98309,98406]	[98247,98404]	[339]	[FG_095]
[FANCAJ_WEBCA]	[CAJUN-FANCY 500 FTLO CAJUN-WEBRE 500]	[97301,98233]	[97301,98430]	[2048]	[FG_096]
[FLRJAX_SLHEB]	[JACKSON SOUTH-FLORENCE FTLO SILVER CREEK-NORTH HEBRON]	[98899,98955]	[99049,99050]	[160]	[FG_097]
[FRARAY_FRBOG]	[FRANKLIN-RAY BRASWELL 500 FTLO FRANKLIN-BOGALUSA]	[99027,98930]	[99027,98487]	[1732]	[FG_098]
[FRAVA_FRNBRO]	[FRANKLIN-VAUGHN 115 FTLO FRANKLIN-BROOKHAVEN SOUTH 115]	[99028,99064]	[99028,99039]	[161]	[FG_099]
[FRKLMCKN_D]	[FRANKLIN-MCKNIGHT 500 PTDF]	[99027,98235]		[2070]	[FG_100]
[FRKLMCKNIT]	[FRANKLIN-MCKNIGHT 500 KV PTDF]	[99027,98235]		[2070]	[FG_101]
[FRPROB_FRPXF]	[ROBINSONVILLE-FREEPORT 230 FTLO FREEPORT 500/230]	[98710,98707]	[18009,98707]	[462]	[FG_102]
[FRRAY_FRBG_D]	[FRANKLIN-RAY BRASWELL 500 FTLO FRANKLIN-BOGALUSA 500]	[99027,98930]	[99027,98487]	[1732]	[FG_103]

[FS500_FS500]	[FT. SMITH 500/161 FTLO FT. SMITH 500/345]	[55305,55300]	[55305,55302]	[440]	[FG_104]
[GEOHEL_SACHI]	[GEORGETOWN HELBIG 230 FTLO SABINE CHINA 230]	[97744,97696]	[97716,97714]	[402]	[FG_105]
[GGFRN_BAWGR]	[GRAND GULF FRANKLIN 500 FTLO GRAND GULF BAXTER WILSON]	[98952,99027]	[98952,98937]	[1732]	[FG_106]
[GONSOR_CONBG]	[GONZALES SORRENTO 138 FTLO CONWAY BAGTELLE 230]	[98268,98545]	[98259,98569]	[130]	[FG_107]
[GONSOR_VICOL]	[GONZALES SORRENTO 138 FTLO COLY VIGNES]	[98268,98545]	[98391,97331]	[130]	[FG_108]
[GRIMTZ_WDN]	[GRIMES MT. ZION 138 FTLO GRIMES WALDEN 138]	[97514,97487]	[97514,97454]	[206]	[FG_109]
[GRIWAL_GRICR]	[WALDEN GRIMES 138 FTLO CROCKETT GRIMES]	[97454,97514]	[53526,97513]	[206]	[FG_110]
[GRNLE_ANDIND]	[GREENVILLE LELAND 115 FTLO ANDRUS INDIANOLA 230]	[98750,98748]	[98759,98769]	[161]	[FG_111]
[GYPFAV_FRSOR]	[LITTLE GYPSY FAIRVIEW230 FTLO SORRENTO FRENCH SETTLEMENT]	[98555,98498]	[98544,97314]	[454]	[FG_112]
[GYPFAV_FSMIC]	[LITTLE GYPSY FAIRVIEW 230 FTLO MICHOUD FRONT STREET 230]	[98555,98498]	[98652,50070]	[454]	[FG_113]
[HAMIN_MCKFRN]	[HAMMOND INDEPENDENCE 115 FTLO MCKNIGHT FRANKLIN 500]	[98484,98482]	[98235,99027]	[168]	[FG_114]
[HAMN_MCKFR_D]	[HAMMOND INDEPENDENCE 115 FTLO FRANKLIN MCKNIGHT 500]	[98484,98482]	[99027,98235]	[168]	[FG_115]
[HAMXF_MCKFRK]	[HAMMOND 230/115 FTLO MCKNIGHT FRANKLIN 500]	[98483,98484]	[98235,99027]	[168]	[FG_116]
[HAYBLY_NMDEL]	[HAYTI BLYTHEVILLE INTERSTATE 161 FTLO NEW MADRID DELL 500]	[99748,99735]	[96035,99742]	[335]	[FG_117]
[HELGTW_HBNEL]	[GEORGETOWN HELBIG 230 FTLO NELSON HARTBURG 500]	[97744,97696]	[97916,97717]	[402]	[FG_118]
[HM230_WEBWLS]	[HAMMOND 230/115 FTLO WEBRE WELLS 500]	[98483,98484]	[98430,98109]	[168]	[FG_119]
[HSBIS_DOLSWS]	[HOT SPRINGS BISMARK 115 FTLO DOLET HILLS SOUTHWEST SHREVEPORT 345]	[99403,99397]	[50045,53454]	[98]	[FG_120]
[HSBIS_ELDXF]	[HOT SPRINGS BISMRAK 115 FTLO ELDORADO EHV 500/345]	[99403,99397]	[99295,99294]	[98]	[FG_121]
[HSEBIS_MCETT]	[HOT SPRINGS BISMARK 115 FTLO ETTA MCNEIL 500]	[99403,99397]	[99441,99309]	[98]	[FG_122]
[HSETA_SHDELD]	[HOT SPRINGS ETTA 500 FTLO SHERIDAN ELDORADO EHV 500]	[99402,99441]	[99333,99295]	[2165]	[FG_123]
[HUMGB_WATXF]	[HUMPHRY GIBSON 115 FTLO WAT 230/500]	[98520,98521]	[98537,98539]	[227]	[FG_124]
[INDDELL500]	[INDEPENDENCE DELL 500 KV PTDF]	[99818,99742]		[1732]	[FG_125]
[INDNEW1_DELL]	[INDEPENDENCE NEWPORT 161 #1 FTLO INDEPENDENCE DELL 500]	[99817,99764]	[99818,99742]	[417]	[FG_126]
[INDNEW2_DELL]	[INDEPENDENCE NEWPORT 161 #2 FTLO INDEPENDENCE DELL 500]	[99817,99764]	[99818,99742]	[417]	[FG_127]
[JACPC_GRICRO]	[JACINTO PEACH CREEK 138 FTLO CROCKETT GRIMES 345]	[97476,97543]	[53526,97513]	[191]	[FG_128]
[JACPC_JACSPL]	[JACINTO PEACH CREEK 138 FTLO JACINTO SPLENDORA 138]	[97476,97543]	[97476,97534]	[191]	[FG_129]

[JACSPL_ADL53]	[JACINTO-SPLENDORA 138 FTLO DAYTON-LINE 533 TAP]	[97476,97534]	[97632,97723]	[206]	[FG_130]
[JACSPL_CONLW]	[JACINTO-SPLENDORA 138 FTLO LEWIS CREEK-CONAIR 138]	[97476,97534]	[97461,97458]	[206]	[FG_131]
[JAKFL_JAKGE]	[JACKSON-SOUTH FLORENCE FTLO SOUTH JACKSON-POPLAR SPRINGS]	[98899,98955]	[98899,99093]	[160]	[FG_132]
[JIMREC_MADDE]	[JIM HILL-RECTOR NORTH 161 FTLO NEW MADRID-DELL 500]	[99753,99842]	[96035,99742]	[334]	[FG_133]
[JONHE_JONJOS]	[JONESBORO-HERGETT 161 FTLO JONESBORO-JONESBORO SPA]	[99755,52620]	[99755,52618]	[148]	[FG_134]
[JONJB_INDDEL]	[JONESBORO-JONESBORO SPA 161 FTLO INDEPENDENCE-DELL 500]	[99755,52618]	[99818,99742]	[223]	[FG_135]
[JONJON_JONHE]	[JONESBORO-JONESBORO SPA161 FTLO JONESBORO-HERGET]	[99755,52618]	[99755,52620]	[223]	[FG_136]
[JSFL_BGFRK_D]	[JACKSON-SOUTH FLORENCE 115 FTLO BOGALUSA-FRANKLIN 500]	[98899,98955]	[98487,99027]	[160]	[FG_137]
[JSFLO_BOGFRK]	[JACKSON-SOUTH FLORENCE 115 FTLO FRANKLIN-BOGALUSA 500]	[98899,98955]	[99027,98487]	[160]	[FG_138]
[JSFLO_MCKFRK]	[JACKSON-SOUTH FLORENCE 115 FTLO FRANKLIN-MCKNIGHT 500]	[98899,98955]	[99027,98235]	[160]	[FG_139]
[KEOWH_SHRWH]	[WHITE BLUFF-KEO 500 FTLO WHITE BLUFF-SHERIDAN 500]	[99340,99627]	[99340,99333]	[1732]	[FG_140]
[LACSTW_LACWG]	[LACYGNE-STILWELL 345 FTLO LACYGNE-WGRN 345]	[57981,57968]	[57981,57965]	[2277]	[FG_141]
[LAKXF_RABLO]	[LAKEOVER115/500 FTLO LAKEOVER-RAY BRASWELL 500]	[98935,98936]	[98935,98930]	[600]	[FG_142]
[LASTHM_RCWEB]	[THOMAS-LA. STATION 138 FTLO WEBRE-WELLS 500]	[98236,98302]	[98430,98109]	[185]	[FG_143]
[LASTHM_WEBWL]	[THOMAS-LA. STATION 138 FTLO CAJUN-WEBRE 500]	[98236,98302]	[97301,98430]	[185]	[FG_144]
[LASWIL_WEBWL]	[LA. STATION-WILBURT 138 FTLO WEBRE-WELLS 500]	[98302,98411]	[98430,98109]	[308]	[FG_145]
[LCHTOL_GRICR]	[LEACH-TOLEDO 138 FTLO GRIMES-CROCKET 345]	[97708,97686]	[53526,97513]	[145]	[FG_146]
[LEVMUR_SYVSW]	[NLR LEVY-MURRAY 115 FTLO SYLVAN HILLS-SHERWOOD 115]	[99581,99576]	[99587,99586]	[159]	[FG_147]
[LEWALD_CONLE]	[LEWIS CREEK-ALDEN 138 FTLO LEWIS CREEK-CONAIR 138]	[97461,97544]	[97461,97458]	[411]	[FG_148]
[LEWALD_CONPL]	[LEWIS CREEK-ALDEN 138 FTLO CONROE-PLANTATION 138]	[97461,97544]	[97459,97465]	[411]	[FG_149]
[LEWPAT_GRICR]	[LEWIS CREEK-PATMOS 115 FTLO CROCKET-GRIMES 345]	[97461,97464]	[53526,97513]	[159]	[FG_150]
[LGPFVW_MCKFR]	[LITTLE GYPSY-FAIRVIEW 230 FTLO MCKNIGHT-FRANKLIN 500]	[98555,98498]	[98235,99027]	[454]	[FG_151]
[LGPPT_WFNINE]	[LITTLE GYPSY-PONCHARTRAIN FTLO WATERFORD-NINE MILE 230]	[98555,98589]	[98537,98606]	[570]	[FG_152]
[LGPSNO_WFNIN]	[LITTLE GYPSY-SOUTH NORCO FTLO WATERFORD-NINE MILE 230]	[98555,98557]	[98537,98606]	[796]	[FG_153]
[LRGNWG_MBLXF]	[NLR-WESTGATE-LR GAINES 115 FTLO MABELVALE 500/115]	[99582,99543]	[99565,99566]	[159]	[FG_154]
[LTPLIV_WEBWL]	[LIVONIA-LINE 642 TAP 138 FTLO WEBRE-WELLS 500]	[98410,98147]	[98430,98109]	[289]	[FG_155]

[LULGYP_GYPXF]	[LITTLE GYPSY-LULING 115 FTLO LITTLE GYPSY 115/230]	[98554,98596]	[98554,98555]	[289]	[FG_156]
[LYNMCA_JASYL]	[LYNCH-MCALMONT 115 FTLO SYLVAN-JACKSONVILLE NORTH 115]	[99562,99573]	[99587,99534]	[261]	[FG_157]
[MABSH_WBSH]	[MABLEVALE-SHERIDAN 500 FTLO WHITE BLUFF-SHERIDAN]	[99565,99333]	[99340,99333]	[1732]	[FG_158]
[MABXF1_MAXF2]	[MABLEVALE 500/115 #1 FTLO MABLEVALE 500/115 #2]	[99565,99566]	[99565,99566]	[448]	[FG_159]
[MAIPMA_DHSW]	[MANSFIELD-MANSFIELD IP 138 FTLO DOLET HILLS-SOUTHWEST SHREVEPORT 345]	[50113,50090]	[50045,53454]	[232]	[FG_160]
[MARHRS_NEWIN]	[MARKED TREE-HARRISBURG FTLO NEWPORT-NEWPORT INDUSTRIAL 161]	[99761,99750]	[99764,99763]	[148]	[FG_161]
[MAYXF1_XF2]	[MAYFLOWER 500/115 #1 FTLO MAYFLOWER 500/115 #2]	[99572,99571]	[99572,99571]	[420]	[FG_162]
[MCAD_LAKOV_D]	[MCADAMS 230/500 FTLO LAKEOVER-MCADAMS 500]	[98809,98808]	[98935,98808]	[560]	[FG_163]
[MCADMLAKOVR]	[LAKEOVER-MCADAMS 500 KV PTDF]	[98935,98808]		[1732]	[FG_164]
[MCADXF_LAKOV]	[MCADAMS 500/230 FTLO MCADAMS-LAKEOVER 500]	[98808,98809]	[98808,98935]	[560]	[FG_165]
[MCKFRK_WEBWL]	[MCKNIGHT-FRANKLIN 500 FTLO WEBRE-WELLS 500]	[98235,99027]	[98430,98109]	[1960]	[FG_166]
[MCNCH_HSETTA]	[MCNEIL-COUCH 115 FTLO ETTA-HOT SPRINGS EHV 500]	[99310,99230]	[99441,99402]	[240]	[FG_167]
[MCNCOU_HSFRI]	[MCNEIL-COUCH 115 FTLO HOT SPRINGS-FRIENDSHIP]	[99310,99230]	[99403,99407]	[240]	[FG_168]
[MCNST_SMKELD]	[MCNEIL-STEPHENS 115 FTLO ELDORADO EHV-SMACKOVER 115]	[99310,99278]	[99293,99277]	[159]	[FG_169]
[MCNSTE_ELDXF]	[MCNEIL-STEPHENS 115 FTLO ELDORADO 500/115]	[99310,99278]	[99295,99293]	[159]	[FG_170]
[MDCPNB_SABXF]	[PORT NECHES-BULK-MID COUNTY 138 FTLO SABINE 138/230]	[97843,97842]	[97705,97716]	[288]	[FG_171]
[MICFRO_MCKFR]	[MICHOUD-FRONT STREET FTLO MCKNIGHT-FRANKLIN 500]	[98652,50070]	[98235,99027]	[641]	[FG_172]
[MOHTB_WBWL_D]	[HARTBURG-MT. OLIVE 500 FTLO WEBRE-WELLS 500]	[97717,99162]	[98430,98109]	[1732]	[FG_173]
[MOLIVEHARTBG]	[MT. OLIVE-HARTBURG 500 KV PTDF]	[99162,97717]		[1732]	[FG_174]
[MORGL_ARKMAB]	[MORRILTON EAST-GLEASON 161 FTLO ANO-MABLEVALE 500]	[99507,99508]	[99486,99565]	[223]	[FG_175]
[MOSMAR_CARBT]	[MOSSVILLE-MARSHAL 138 FTLO CARLYSS-BIG THREE 230]	[97929,98043]	[97921,97925]	[159]	[FG_176]
[MTO230_MTELD]	[MT. OLIVE 230/115 FTLO ELDORADO EHV-MT. OLIVE 500]	[99163,99164]	[99295,99162]	[300]	[FG_177]
[MTOHTB_WEBWL]	[MT. OLIVE-HARTBURG 500 FTLO WEBRE-WELLS 500]	[99162,97717]	[98430,98109]	[1000]	[FG_178]
[MTOXF_STNELD]	[MT. OLIVE 230/115 FTLO ELDORADO-STERLINGTON 500]	[99163,99164]	[99295,99148]	[560]	[FG_179]
[MTZGRI_CROGR]	[MT. ZION - GRIMES 138 FTLO CROCKETT-GRIMES 345]	[97514,97487]	[53526,97513]	[206]	[FG_180]
[NATNATS_PLSF]	[NATCHEZ INDUSTRIAL-NATCHEZ SOUTH FTLO PLANTATION-SOUTH FERRIDAY]	[99022,99024]	[99117,99119]	[120]	[FG_181]

[NCRSCB_RICHR]	[NORTH CROWLEY-SCOTT 138 FTLO RICHARD-SCOTT 138]	[97329,98130]	[98108,98130]	[216]	[FG_182]
[NECSB_NECCAR]	[NECHES-CARROL STREET PARK 138 #1 FTLO NECHES-CARROL STREET PARK 138 #2]	[97702,97757]	[97702,97757]	[121]	[FG_183]
[NEL500_CARBT]	[NELSON 500/230 FTLO CARLYSS-BIG THREE]	[97917,97916]	[97921,97925]	[560]	[FG_184]
[NELLC_CARBOU]	[NELSON-LAKE CHARLES BULK 138 FTLO CARLYSS-BOUDIN 230]	[97918,97994]	[97921,98047]	[216]	[FG_185]
[NELLC_MOSNEL]	[NELSON-LAKE CHARLES BULK 138 FTLO NELSON-MOSS BLUFF 230]	[97918,97994]	[97917,97302]	[216]	[FG_186]
[NELLC_NELLCB]	[NELSON-LAKE CHARLES BULK 138 #1 FTLO NELSON-LAKE CHARLES BULK 138 #2]	[97918,97994]	[97918,97994]	[159]	[FG_187]
[NELLC_RICNEL]	[LAKE CHARLES BULK-NELSON 138 FTLO RICHARD-NELSON 500]	[97994,97918]	[98107,97916]	[159]	[FG_188]
[NELXF_SABGTN]	[NELSON 500/230 FTLO GEORGETOWN-SABINE]	[97916,97917]	[97744,97716]	[560]	[FG_189]
[NELXF500]	[NELSON 500/230 PTDF]	[97916,97917]		[560]	[FG_190]
[NEWMADDELL]	[NEW MADRID-DELL 500 KV PTDF]	[96035,99742]		[1500]	[FG_191]
[NINMID_NAPOL]	[NINE MILE-DERBIGNY 230 FTLO NINE MILE-NAPOLEON 230]	[98606,98687]	[98606,98691]	[640]	[FG_192]
[NLRDXE_L145W]	[LR EAST-NLR DIXIE 115 FTLO WRIGHTSVILLE-LR 145TH STREET 115]	[99541,99580]	[99678,99538]	[159]	[FG_193]
[NLRLVWGLRKS]	[NLR-LEVY-NLR-WESTGATE 115 FTLO LR SOUTH-LR ROCK CREEK 115]	[99581,99582]	[99552,99551]	[159]	[FG_194]
[NMADEL_MARCU]	[NEW MADRID-DELL 500 FTLO MARHSALL-CUMBERLAND]	[96035,99742]	[18406,18425]	[1732]	[FG_195]
[NMADEL_SHWMA]	[NEW MADRID-DELL 500 FTLO SHAWNEE-MARSHALL]	[96035,99742]	[18401,18406]	[1732]	[FG_196]
[ORSAB_COWSAB]	[ORANGE-SABINE 138 FTLO COW-SABINE 138]	[97619,97705]	[97617,97705]	[216]	[FG_197]
[PACROS_ANIND]	[ROSEDALE-PACE 115 FTLO ANDRUS-INDIANOLA 230]	[98742,98741]	[98759,98769]	[85]	[FG_198]
[PACROS_INDBR]	[ROSEDALE-PACE 115 FTLO BRICKYARD-INDIANOLA 115]	[98742,98741]	[98836,98770]	[85]	[FG_199]
[PBSPIP_PBEIP]	[PB SOUTH-PB INTERNATIONAL PAPER 115 FTLO PB EAST-PB INTERNATIONAL PAPER 115]	[99326,99408]	[99324,99408]	[160]	[FG_200]
[PPGROB_VEPPG]	[PPG-ROSEBLUFF 230 FTLO PPG-VERDINE 230]	[97920,98046]	[97920,97919]	[470]	[FG_201]
[PPGROS_HBNEL]	[PPG-ROSEBLUFF 230 FTLO NELSON-HARTBURG 500]	[97920,98046]	[97916,97717]	[470]	[FG_202]
[PPGROS_NELCL]	[PPG-ROSEBLUFF 230 FTLO NELSON-CARLYSS 230]	[97920,98046]	[97917,97921]	[470]	[FG_203]
[QUTBEB_FTSAR]	[QUITMAN-BEE BRANCH 161 FTLO ANO-FT. SMITH 500]	[99519,99799]	[99486,55305]	[167]	[FG_204]
[RACCOT_TERXF]	[RACELAND-COTEAU 115 FTLO TERREBONNE 230/115]	[98512,98523]	[98510,98522]	[320]	[FG_205]
[RANPEL_ATTCA]	[RANKIN-PELAHATCHIE 115 FTLO ATTALA-CARTHAGE 115]	[98891,98881]	[98811,98817]	[261]	[FG_206]
[RANPEL_MCATL]	[RANKIN-PELAHATCHIE FTLO MCADAMS-ATTALA 230]	[98891,98881]	[98809,98810]	[261]	[FG_207]

[RAYBAX_GGFRA]	[BAXTER WILSON-RAY BRASWELL 500 FTLO GRAND GULF-FRANKLIN]	[98937,98930]	[98952,99027]	[1732]	[FG_208]
[RAYCLI_RAYLO]	[RAY BRASWELL 500/230 FTLO RAY BRASWELL LAKEOVER]	[98930,98931]	[98930,98935]	[560]	[FG_209]
[RAYNAT_CHJAC]	[RAYWOOD NATIONAL 138 FTLO CHINA JACINTO 230]	[97626,97724]	[97714,97721]	[216]	[FG_210]
[RAYNAT_JACXF]	[RAYWOOD NATIONAL 138 FTLO JACINTO 230/138]	[97626,97724]	[97478,97476]	[216]	[FG_211]
[RBCLN_RBLAK]	[RAY BRASWELL EHV CLINTON 115 FTLO RAY BRASWELL EHV LAKEOVER 500]	[98932,98911]	[98930,98935]	[240]	[FG_212]
[RBEHVLAKOVR]	[RAY BRASWELL LAKEOVER 500 KV PTDF]	[98930,98935]		[1732]	[FG_213]
[RDSHL_BATEND]	[ROUNDAWAY SHELBY 115 FTLO BATESVILLE ENID 230]	[98725,98724]	[98729,98735]	[231]	[FG_214]
[RDSHL_INDXF]	[ROUNDAWAY SHELBY 115 FTLO INDIANOLA 230/115]	[98725,98724]	[98769,98770]	[231]	[FG_215]
[RDSHL_MEPRIT]	[ROUNDAWAY SHELBY 115 FTLO MEP CLARKSDALE MOONLAKE 230]	[98725,98724]	[98854,99680]	[231]	[FG_216]
[RICCOL_FANCJ]	[RICHARD COLONIAL ACADEMY 138 FTLO CAJUN FANCY 500]	[98108,98110]	[97301,98233]	[209]	[FG_217]
[RICCOL_NCRIC]	[RICHARD COLONIAL ACADEMY 138 FTLO RICHARD NORTH CROWLEY 138]	[98108,98110]	[98108,97329]	[209]	[FG_218]
[RICCOL_SCOTT]	[RICHARD COLONIAL ACADEMY FTLO RICHARD SCOTT 138]	[98108,98110]	[98108,98130]	[209]	[FG_219]
[RICSTU_BRKRT]	[RICUSKEY STUTTGART INDUSTRIAL 115 FTLO RITCHIE BRINKLEY EAST]	[99646,99695]	[99651,99600]	[106]	[FG_220]
[RICXF1_XF2]	[RICHARD 500/138 #1 FTLO RICHARD 500/138 #2]	[98107,98108]	[98107,98108]	[625]	[FG_221]
[RILRIV_MTOEL]	[RILLA RIVERTON 115 FTLO ELDORADO MT. OLIVE 500]	[99126,99111]	[99295,99162]	[96]	[FG_222]
[RNGXF_ELDLGW]	[RINGGOLD 138/115 FTLO ELDORADO EHV LONGWOOD 345]	[50024,99167]	[99294,53424]	[125]	[FG_223]
[ROWSHE_BATMO]	[SHELBY SWITCHING STATION ROUNDAWAY 115 FTLO BATESVILLE MOONLAKE 230]	[98724,98725]	[98729,99680]	[231]	[FG_224]
[RUSDAR_ANOFS]	[RUSSELVILLE SOUTH DARDANVILLE DAM 161 FTLO ANO FT. SMITH 500]	[99491,52708]	[99486,55305]	[335]	[FG_225]
[RUSDWN_STLEL]	[DOWNSVILLE-RUSTON 115 FTLO STERLINGTON-ELDORADO EHV 500]	[99160,97325]	[99148,99295]	[185]	[FG_226]
[RUSVIN_STLEL]	[RUSTON VIENNA 115 FTLO ELDORADO EHV STERLINGTON 500]	[97325,99161]	[99295,99148]	[239]	[FG_227]
[SABHAM_SABOI]	[SABINE HAMPTON 138 FTLO SABINE OILLA 138]	[97705,97701]	[97705,97789]	[282]	[FG_228]
[SABLIN_PNB]	[SABINE LINDE 138 FTLO SABINE PORT NECHES BULK]	[97705,97848]	[97705,97843]	[288]	[FG_229]
[SABOILL_HAMP]	[SABINE OILLA 138 FTLO SABINE HAMPTON 138]	[97705,97789]	[97705,97701]	[282]	[FG_230]
[SABPN_SABHAM]	[SABINE PORT NECHES BULK 138 FTLO SABINE HAMPTON 138]	[97705,97843]	[97705,97701]	[288]	[FG_231]
[SABPN_SABLI]	[SABINE PORT NECHES BULK 138 FTLO SABINE LINDE 138]	[97705,97843]	[97705,97848]	[288]	[FG_232]
[SAGMEL_ISDEL]	[SAGE SWITCHING STATION MELBOURNE 161 FTLO INDEPENDENCE DELL 500]	[99834,99824]	[99818,99742]	[148]	[FG_233]

[SCB_COCVILPL]	[SCOTT-BONIN 138 FTLO COCODRIE-VILLE PLATTE 230]	[98130,50304]	[50031,50203]	[225]	[FG_234]
[SCBON_MCKFR]	[SCOTT-BONIN 138 FTLO MCKNIGHT-FRANKLIN 500]	[98130,50304]	[98235,99027]	[225]	[FG_235]
[SCBON_MONCOL]	[SCOTT-BONIN 138 FTLO MONTGOMERY-COLFAX 230]	[98130,50304]	[99116,50033]	[225]	[FG_236]
[SCBON_WEBWLS]	[SCOTT-BONIN 138 FTLO WEBRE-WELLS 500]	[50304,98130]	[98430,98109]	[225]	[FG_237]
[SCSEM_SCBON]	[SCOTT-SEMERE 138 FTLO SCOTT-BONIN 138]	[98130,97323]	[98130,50304]	[130]	[FG_238]
[SCTBON_HABRI]	[SCOTT-BONIN 138 FTLO RICHARD-HABETZ 138]	[98130,50304]	[98108,50081]	[225]	[FG_239]
[SHEHMAG_ELEH]	[SHERIDAN-MAGNET COVE FTLO SHERIDAN-ELDORADO 500]	[99333,99450]	[99333,99295]	[1732]	[FG_240]
[SHEHV_MAGNET]	[SHERIDAN ELDORADO 500 FTLO SHERIDAN-MAGNET COVE]	[99333,99295]	[99333,99450]	[1732]	[FG_241]
[SHEWHB_MABWR]	[SHERIDAN-WHITEBLUFF 500 FTLO MABLEVALE-WRIGHTSVILLE]	[99333,99340]	[99565,99668]	[1732]	[FG_242]
[SHLDEL_INDXF]	[SHELBY-DELTA 115 FTLO INDIANOLA 230/115]	[98724,98737]	[98769,98770]	[87]	[FG_243]
[SHLDEL_MEPRI]	[DELTA-SHELBY 115 FTLO MOONLAKE-CROSSROADS 230]	[98737,98724]	[99680,98854]	[87]	[FG_244]
[SHRELD_HSPET]	[SHERIDAN-ELDORADO 500 FTLO HOT SPRINGS-ETTA 500]	[99333,99295]	[99402,99441]	[1732]	[FG_245]
[SHRMAB_KEO]	[SHERIDAN-MABELVALE 500 FTLO WHITE BLUFF-KEO 500]	[99333,99565]	[99340,99627]	[1732]	[FG_246]
[SLIFB_DANMCK]	[FRENCH BRANCH-SLIDELL 230 FTLO DANIEL-MCKNIGHT 500]	[97327,98492]	[15021,98235]	[797]	[FG_247]
[SLVNHB_JACFL]	[SILVER CREEK-NORTH HEBRON FTLO JACKSON-SOUTH FLORENCE]	[99049,99050]	[98899,98955]	[161]	[FG_248]
[SOPJOL_NMNAP]	[SOUTHPORT-JOLIET 230 FTLO NINE MILE-NAPOLEON 230]	[98583,98655]	[98606,98691]	[640]	[FG_249]
[SORLUT_WGWAT]	[SORENTO-LUTCHER 115 FTLO WILLOW GLEN-WATERFORD 500]	[98546,98548]	[98246,98539]	[239]	[FG_250]
[SORVIG_MCKFR]	[VIGNES-SORRENTO 230 FTLO MCKNIGHT-FRANKLIN 500]	[97331,98544]	[98235,99027]	[462]	[FG_251]
[SREGON_WGWAT]	[SORRENTO-GONZALES 138 FTLO WILLOW GLEN-WATERFORD]	[98545,98268]	[98246,98539]	[130]	[FG_252]
[STLXF1_XF2]	[STERLINGTON 500/115 #1 FTLO STERLINGTON 500/115 #2]	[99148,99146]	[99148,99146]	[600]	[FG_253]
[SUMHE_BULSLD]	[SUMMIT-HARRISON EAST 161 FTLO BULL SHOALS-LEAD HILL 161]	[99837,99811]	[52660,99859]	[106]	[FG_254]
[SWFWAL_INDEL]	[SWIFTON-WALNUT RIDGE 161 FTLO INDEPENDENCE-DELL 500]	[99778,99765]	[99818,99742]	[167]	[FG_255]
[SYLSH_NLRMUR]	[SYLVAN-SHERWOOD 115 FTLO NLR LEVY-MURRAY TAP 115]	[99587,99586]	[99581,99576]	[159]	[FG_256]
[TALDEL_STLPV]	[TALULAH-DELHI 115 FTLO PERRYVILLE-STERLINGTON 500]	[99154,99155]	[99203,99148]	[80]	[FG_257]
[TBDVAN_ELMTO]	[TOLEDO-VAN PLY 138 FTLO ELDORADO-MT. OLIVE 500]	[97708,50199]	[99295,99162]	[289]	[FG_258]
[TBDVPL_MOHBC]	[VAN PLY-TOLEDO 138 FTLO MT. OLIVE-HARTBURG 500]	[50199,97708]	[99162,97717]	[289]	[FG_259]

[TBOGRN_WEBWL]	[TERREBONNE-GREENWOOD FTLO WEBRE-WELLS 500]	[98522,97309]	[98430,98109]	[227]	[FG_260]
[TERGRN_MCFRK]	[TERREBONNE-GREENWOOD 115 FTLO MCKNIGHT-FRANKLIN 500]	[98522,97309]	[98235,99027]	[227]	[FG_261]
[TERGRN_WEBCJ]	[TERREBONNE-GREENWOOD 115 FTLO CAJUN-WEBRE 500]	[98522,97309]	[97301,98430]	[227]	[FG_262]
[TERXF_WEBWLS]	[TERREBONNE 230/115 FTLO WEBRE-WELLS 500]	[98510,98522]	[98430,98109]	[300]	[FG_263]
[TERXF_VLNWAT]	[TERREBONNE 230/115 FTLO WATERFORD-VALENTINE 230]	[98510,98522]	[98537,98527]	[300]	[FG_264]
[TOLVP_MCKFRK]	[TOLEDO-VAN PLY 138 FTLO MCKNIGHT-FRANKLIN 500]	[97708,50199]	[98235,99027]	[289]	[FG_265]
[TOLVP_MONCOL]	[TOLEDO-VAN PLY 138 FTLO COLFAX-MONTGOMERY 230]	[97708,50199]	[50033,99116]	[289]	[FG_266]
[TUNRIT_RITTP]	[RITCHE-TUNICA 230 FTLO RITCHIE-MOONLAKE 230]	[99651,98718]	[99651,99680]	[462]	[FG_267]
[TUPTAP_VLPIT]	[TUPELO-TUPELO TAP 138 FTLO VAL-PITTS 345]	[52800,56071]	[54037,54033]	[96]	[FG_268]
[VALTXF_RACWF]	[VALENTINE 230/115 FTLO WATERFORD-RACELAND 230]	[98527,98526]	[98537,98511]	[300]	[FG_269]
[VEPPG_PPGROB]	[PPG-VERDINE 230 FTLO PPG-ROSEBLUFF 230]	[97920,97919]	[97920,98046]	[470]	[FG_270]
[VERPPG_NELCS]	[VERDINE-PPG 230 FTLO NELSON-CARLYSS 230]	[97919,97920]	[97917,97921]	[470]	[FG_271]
[VKSWAT_BWXFM]	[WATERWAY-VICKSBURG 115 FTLO BAXTER-WILSON 500/115]	[98946,98941]	[98937,98938]	[261]	[FG_272]
[VLNCH_COTHOU]	[VALENTINE-CHAUVIN 115 FTLO COTEAU-HOUMA 115]	[98526,98525]	[98523,98524]	[288]	[FG_273]
[VLNXF_VACTHB]	[VALENTINE 230/115 FTLO VACHERIE-THIBODAUX 230]	[98527,98526]	[98508,98509]	[300]	[FG_274]
[WALXF_INDDEL]	[WALNUT RIDGE 161/115 FTLO INDEPENDENCE-DELL 500]	[99784,99783]	[99818,99742]	[60]	[FG_275]
[WATFR_CONBAG]	[WATERFORD-FRISCO 230 FTLO CONWAY-BAGTELLE]	[98537,98566]	[98259,98569]	[440]	[FG_276]
[WATFR_WAT9MI]	[WATERFORD-FRISCO 230 FTLO WATERFORD-NINE MILE 230]	[98537,98566]	[98537,98606]	[440]	[FG_277]
[WATFR_WATGYP]	[WATERFORD-FRISCO 230 FTLO WATERFORD-GYPSY 230]	[98537,98566]	[98537,98555]	[440]	[FG_278]
[WATFRI_WATWG]	[WATERFORD-FRISCO 230 FTLO WILLOW-GLEN-WATERFORD 500]	[98537,98566]	[98246,98539]	[440]	[FG_279]
[WATGYP_WATGP]	[WATERFORD-LITTLE GYPSY 230 #1 FTLO WATERFOR-LITTLE GYPSY 230 #2]	[98537,98555]	[98537,98555]	[576]	[FG_280]
[WATNM_GYPSN]	[WATERFORD-NINEMILE 230 FTLO LITTLE GYPSY-SOUTH NORCO 230]	[98537,98606]	[98555,98557]	[640]	[FG_281]
[WATVKB_BWXFM]	[VICKSBURG-EAST-WATERWAY 115 FTLO BAXTER-WILSON 500/115]	[98867,98946]	[98937,98938]	[161]	[FG_282]
[WAWVIC_RABBA]	[WATERWAY-VICKSBURG-EAST FTLO BAXTER-WILSON-RAY-BRASWELL]	[98946,98867]	[98937,98930]	[161]	[FG_283]
[WBWLS_MTHR_D]	[WEBRE-WELLS 500 FTLO HARTBURG-MT. OLIVE 500]	[98430,98109]	[99162,97717]	[1732]	[FG_284]
[WEBWL_MCKFRK]	[WEBRE-WELLS 500 FTLO MCKNIGHT-FRANKLIN 500]	[98430,98109]	[98235,99027]	[1732]	[FG_285]

[WEBWLS_MTHAR]	[WEBRE-WELLS 500 FTLO MT. OLIVE-HARTBURG 500]	[98430,98109]	[97717,99162]	[1732]	[FG_286]
[WEBWLS_STLPV]	[WEBRE-WELLS 500 FTLO STERLINGTON-PERRYVILLE]	[98430,98109]	[99203,99148]	[1732]	[FG_287]
[WEBERWELLS]	[WEBRE-WELLS 500 KV PTDF]	[98430,98109]		[1732]	[FG_288]
[WGATERF]	[WILLOW GLEN-WATERFORD 500 KV PTDF]	[98246,98539]		[1200]	[FG_289]
[WHBSHE_MABEL]	[WHITE BLUFF-SHERIDAN FTLO MABELVALE-SHERIDAN 500]	[99340,99333]	[99565,99333]	[1732]	[FG_290]
[WHBSHR_KEOWH]	[WHITE BLUFF-SHERIDAN 500 FTLO WHITE BLUFF-KEO 500]	[99340,99333]	[99340,99627]	[1732]	[FG_291]
[WILLVB_MCFRK]	[WILBURT-LIVONIA 138 FTLO MCKNIGHT-FRANKLIN 500]	[98411,98410]	[98235,99027]	[289]	[FG_292]
[WILLVB_WEBCJ]	[WILBURT-LIVONIA 138 FTLO CAJUN-WEBRE 500]	[98411,98410]	[97301,98430]	[289]	[FG_293]
[WILLVB_WEBWL]	[WILBURT-LIVONIA 138 FTLO WEBRE-WELLS 500]	[98411,98410]	[98430,98109]	[289]	[FG_294]
[WINDOD_HARMT]	[WINNFIELD-DODSON 115 FTLO HARTBURG-MT. OLIVE 500]	[99112,99174]	[97717,99162]	[176]	[FG_295]
[WINDOD_MTCOL]	[WINNFIELD-DODSON 115 FTLO MONTGOMERY-COLFAX 230]	[99112,99174]	[99116,50033]	[176]	[FG_296]
[WINDOD_MTOXF]	[WINNFIELD-DODSON 115 FTLO MT. OLIVE 500/230]	[99112,99174]	[99162,99163]	[176]	[FG_297]
[WMPBIR_DELSH]	[WEST MEMPHIS-BIRMINGHAM STEEL-FTLO DELL-SHELBY 500]	[99788,18051]	[99742,18008]	[2533]	[FG_298]
[WODPB_NLWRT]	[WOODWARD-PINE BLUFF-DIERKS FTLO WRIGHTSVILLE-NLR 145TH STREET]	[99338,99323]	[99678,99538]	[98]	[FG_299]
[WYAPAR_MOELD]	[WYATT-PARNELL 115 FTLO ELDORADO-MT. OLIVE 500]	[99296,99412]	[99295,99162]	[159]	[FG_300]
[DOLXF_DOLSHR]	[DOLET 345/230 FTLO DOLET HILLS-SOUTHWEST SHREVEPORT 345]	[50045,50046]	[50045,53454]	[1056]	[FG_301]
[BONXF_FLNHPK]	[BONIN 230/138 FTLO FLANDERS-HOPKINS 138]	[50303,50304]	[50059,50085]	[336]	[FG_302]
[BONXF_RICSCB]	[BONIN 230/138 FTLO RICHARD-SCOTT 138]	[50303,50304]	[98108,98130]	[336]	[FG_303]
[SCBSEM_PNTBO]	[SCOTT-SEMERE 138 FTLO PONT DES MOUTON-BONIN 230]	[98113,97323]	[50310,50303]	[130]	[FG_304]
[SCBSEM_BOCEC]	[SCOTT-SEMERE 138 FTLO BONIN-CECELIA 138]	[98113,97324]	[50304,98190]	[130]	[FG_305]
[SCBSEM_WLPNT]	[SCOTT-SEMERE 138 FTLO WELLS-PONT DES MOUTON 230]	[98113,97325]	[50216,50310]	[130]	[FG_306]
[SCBSEM_WELXF]	[SCOTT-SEMERE 138 FTLO WELLS 500/230]	[98113,97326]	[98109,50217]	[130]	[FG_307]
[SRNVIG_SGAAC]	[VIGNES-SORRENTO 230 FTLO POLSCAR (ST. GABRIEL) A.A.C. 230]	[97331,98544]	[98434,98249]	[462]	[FG_308]
[SCBBON_WLPNT]	[SCOTT-BONIN 138 FTLO WELLS-PONT DES MOUTON 230]	[98130,50304]	[50216,50310]	[225]	[FG_309]
[NRCSCB_WLPNT]	[NORTH CROWLEY-SCOTT 138 FTLO WELL-PONT DES MOUTON 230]	[97329,98130]	[50216,50310]	[216]	[FG_310]
[BONCEC_RICCO]	[BONIN-CECELIA 138 FTLO RICHARD-COLONIAL ACADEMY 138]	[50304,98190]	[98108,98110]	[145]	[FG_311]

[MONALC_SGAAC]	[ALCHEM-MONOCHEM 138 FTLO POLSCAR (ST. GABRIEL) A.A.C. 230]	[98255,98271]	[98434,98249]	[225]	[FG_312]
[CLYVIG_SGAAC]	[COLY-VIGNES 230 FTLO POLSCAR (ST. GABRIEL) A.A.C. 230]	[98391,97331]	[98434,98249]	[462]	[FG_313]
[SGAAC_CLYVIG]	[POLSCAR (ST. GABRIEL) 230 A.A.C. FTLO COLY-VIGNES 230]	[98434,98249]	[98931,97331]	[685]	[FG_314]
[ANDRXF_ANIND]	[ANDRUS 230/115 FTLO ANDRUS INDIANOLA 230]	[98759,98760]	[98759,98769]	[392]	[FG_315]
[VKBVKW_BWSEV]	[VICKSBURG-VICKSBURG WEST 115 FTLO BAXTER WILSON SOUTH EAST VICKSBURG 115]	[98941,98942]	[98938,98866]	[161]	[FG_316]
[9MILE_PMAX]	[9MILE_PMAX]				[FG_600]
[9MILE_PMIN]	[9MILE_PMIN]				[FG_601]
[ACADIA_PMAX]	[ACADIA_PMAX]				[FG_602]
[ACADIA_PMIN]	[ACADIA_PMIN]				[FG_603]
[AECI_TIECAPE]	[EXPORT LIMT FOR AECI INTERFACE]				[FG_604]
[AECI_TIECAPI]	[IMPORT LIMT FOR AECI INTERFACE]				[FG_605]
[AIRLIQU_PMAX]	[AIRLIQU_PMAX]				[FG_606]
[AIRLIQU_PMIN]	[AIRLIQU_PMIN]				[FG_607]
[AMRN_TIECAPE]	[EXPORT LIMT FOR AMRN INTERFACE]				[FG_608]
[AMRN_TIECAPI]	[IMPORT LIMT FOR AMRN INTERFACE]				[FG_609]
[ANDRUS_PMAX]	[ANDRUS_PMAX]				[FG_610]
[ANDRUS_PMIN]	[ANDRUS_PMIN]				[FG_611]
[ANO_PMAX]	[ANO_PMAX]				[FG_612]
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[~~spp-ict/afcmanual(jgd)~~]

STUDY MANUAL COMPARED TO ATTACHMENT D

[Entergy Services, Inc.]ATTACHMENT D

[As Agent for]

[Entergy Arkansas, Inc.]
[Entergy Gulf States, Inc.]
[Entergy Louisiana, LLC]
[Entergy Mississippi, Inc.]
[Entergy New Orleans, Inc.]

SYSTEM IMPACT STUDY [AND FACILITIES STUDY PROCESS MANUAL]CRITERIA

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1 Introduction

1.1 Purpose

The purpose of this [document]**Attachment D** is to describe Entergy's business practices for conducting System Impact Studies and Facilities Studies when evaluating requests for transmission service under Sections 19 and 32 of the [Entergy Open Access Transmission]Tariff[(Tariff)].

1.2 Division of Responsibilities

The division of responsibilities between Entergy's Transmission Business Unit and the **(Independent Coordinator of Transmission)** ICT in performing the studies described herein will be controlled by Attachment S to the Tariff, including the ICT Protocols appended to Attachment S. Any inconsistency between this [manual]**Attachment D** and Attachments S **(**or the ICT Protocols**)** shall be resolved in favor of Attachment S and the ICT Protocols. The term "Entergy" is used to delineate the requirements or procedures applicable to the Entergy [transmission system]**Transmission System** and [OATT]**Tariff** generally, but is not used to delineate the division of responsibilities. Instead, the term "Transmission Provider" is used to delineate those duties that will be performed by Entergy personnel, as opposed to the ICT. [The procedures described in this section will not become fully effective until the Transmission Provider and the ICT have reviewed (and modified if necessary) these procedures for compliance under Order 890.]

1.3 Definitions

Capitalized terms used in this [~~document and the Tariff (including Attachment S and the protocols attached thereto) will have the definition provided~~]**Attachment D are as defined** in the Tariff. Additional definitions are included below:

1.4 When a System Impact Study is Required

Transmission Service Requests (TSRs) must be evaluated to determine if there is sufficient transmission capability to accept the TSR and ensure reliable service for existing [~~transmission customers~~]**Transmission Customers**. A System Impact Study is a power flow network analysis of whether a particular TSR can be reliably accommodated. To the extent a TSR cannot be reliably accommodated without the construction of additional transmission facilities, the System Impact Study will also provide a preliminary estimate of possible costs associated with the necessary facilities. The [~~customer~~]**Transmission Customer** may also request that the System Impact Study evaluate the availability for **planning** redispatch [~~as an alternative~~]**and conditional firm service as alternatives** to transmission upgrades. The ICT will determine whether a System Impact Study is necessary pursuant to the following procedures and [~~OATT~~]**Tariff** provisions. Under Attachment C to the Tariff, System Impact Studies are performed for the long-term TSRs, which include the following: (1) requests for Long-Term Firm Point-To-Point Transmission Service; (2) requests for Network Integration Transmission Service by new Network Customers; (3) requests by existing Network Customers to designate Network Resources for a duration of one year or more; and (4) requests by existing Network Customers to designate Network Resources and obtain "rollover rights" for those Network Resources for any duration. **Transmission** Customers seeking to transition from service under a [~~Grandfathered, pre-Order No! 888~~]**grandfathered** agreement to Network Service under the [~~OATT~~]**Tariff** will be treated as new Network Customers having rollover rights associated with the grandfathered service. A System Impact Study will be required for these customers[~~consistent with Order No. 888-A, at 30,198 n.52.~~]**.**

System Impact Studies are generally not performed for short-term TSRs, which include the following: (1) requests for Short-Term Firm Point-To-Point Transmission Service requests; and (2) requests by existing Network Customers to designate Network Resources for a duration of less than one year without obtaining "rollover rights" for those Network Resources for any duration. These short-term TSRs are typically evaluated under Entergy's Available Flowgate Capability (AFC) Process. However, System Impact Studies will be performed for short-term TSRs under the following circumstances: (1) monthly requests for Firm Point-To-Point Transmission Service or to designate new Network Resources where the service is to take place beyond the next 18 months; (2)

where the AFC process has denied a short-term TSR and the [transmission customer]Transmission Customer has requested a System Impact Study to evaluate solely the potential for transmission system upgrades to increase the applicable AFC values. With respect to (2), because of the lead-time and costs associated with transmission facility construction, System Impact Studies for short-term TSRs are rarely requested or performed.

Where a request for Long-Term Firm Point-To-Point Firm Transmission Service is made and cannot be satisfied out of existing capacity, the ICT will, at the request of the Transmission Customer and in the System Impact Study, identify (1) the transmission upgrades necessary to provide the service, and (2) the options for providing service during the period prior to completion of those transmission upgrades. Additionally, if upgrades cannot be completed prior to expiration of the requested service term, the ICT will, at the request of the Transmission Customer, identify options in the System Impact Study for providing the service during the requested term. The options studied by the ICT must include planning redispatch and conditional firm service. The System Impact Study may offer a mix of planning redispatch and conditional firm options for a single service request. Planning redispatch and conditional firm options will not be offered if doing so would impair reliable service to firm customers, including native load and Network Customers.

1.5 When a Facilities Study is Required

In the event that a System Impact Study indicates that [transmission service]Transmission Service cannot be reliably accommodated without the addition of transmission upgrades, the [transmission customer]Transmission Customer may request a Facilities Study. The ICT shall tender a Facility Study **agreement** as necessary pursuant to the applicable provisions of the [Entergy OATT.]**Tariff.** The Facilities Study is a more in-depth study of the upgrades required to provide the requested transmission service, including an AC analysis of the TSR to confirm whether transmission upgrades are necessary. To the extent transmission upgrades are necessary, the Facilities Study will include a good-faith estimate of the costs and time required to complete construction of any such upgrades and an analysis of the cost allocation for those upgrades as specified under Attachment T to the Tariff. As with System Impact Studies, the [customer]Transmission Customer may also request an analysis of redispatch options as an alternative to transmission upgrades.

1.6 Queue for System Impact and Facilities Studies

[Under Order No. 888, the]The priority of long-term TSRs is determined on a first-come, first-served basis. Long-term transmission service requests that require a System Impact Study will be placed in the System Impact Study [Queue]queue based on the date and time service is requested over OASIS. Where short-term TSRs have been denied through the AFC process and the [transmission customer]Transmission Customer has requested a System Impact Study to analyze transmission upgrades, such [Studies]studies will also be placed in the System Impact Study [Queue]queue based on the date and time that service was requested through the AFC process. System Impact Studies will be performed in the order established by the queue. The ICT will maintain the queues related to System Impact and Facilities Studies.

The Tariff provides additional details regarding the timing and requirements associated with obtaining a System Impact Study. Refer to Sections 19 and 32 of the Tariff for those details and the Transmission Service Protocol for a description of the division of [reponsiblities]responsibilities between the Transmission Provider and the ICT.

2 Base Case Model Development

2.1 NERC and SERC Regional Models

Consistent with Section 6 of the Transmission Service Protocol, the Base Case Models used in System Impact Studies will be based on the updated regional power flow models developed pursuant to the NERC multi-regional and SERC regional model development processes. The NERC and SERC regional models will be developed consistent with the NERC Multiregional Modeling Working Group (MMWG) Procedural Manual (or its successor), the current SERC near-term and long-term procedural manuals, and all applicable, current NERC Reliability Standards and SERC reliability criteria. The NERC models will be updated on an annual basis and will be used to develop the SERC regional models. The long-term SERC regional models will be updated on an annual basis, and the short-term SERC regional models will be updated annually with quarterly adjustments. These SERC regional models will be used to develop the seasonal/annual Base Case Models (representing a period of 10 years) and monthly Base Case Models used in System Impact Studies. The ICT will participate in the regional model development process for the SERC region with the Transmission Provider.

2.2 Development of Seasonal and Monthly Base Case Models

All seasonal Base Case Models used in performing System Impact Studies will be derived from the NERC and SERC regional models created as part of the regional modeling process described above. The seasonal Base Case Models will be developed by modifying the most recent SERC regional models to include a more detailed representation of the Entergy [system control area]**Control Area** and updated data inputs made available after the most recent SERC regional model was finalized. The SERC regional models will be modified on an annual basis to include the more detailed representation of the Entergy system and embedded [control areas]**Control Areas**, while the updating of data inputs will occur at least on a quarterly basis. In addition to these quarterly updates, the seasonal models will be further updated by the ICT just prior to evaluating a service request as described in Section 3.1 below.

All monthly Base Case Models used in performing System Impact Studies will be derived from the seasonal [base case models]**Base Case Models** developed through the SERC near-term modeling procedures, as updated by the Transmission Provider and the ICT and other SERC members to include data inputs made available after the most recent near-term seasonal model was developed. The monthly Base Case Models are developed for Month 2 through Month 18 and include updated transmission system information for the Entergy Transmission System and embedded [control areas]**Control Areas**. The monthly Base Case Models are also updated on a weekly basis to incorporate the most current transmission service reservation data from the Entergy OASIS site.

The Transmission Provider creates the seasonal and monthly Base Case Models used in the development of the System Impact Studies, with the participation of the ICT and other modeling group participants, subject to the ICT's review and validation pursuant to [sections]**Sections** 6.1 and 6.2 of the Transmission Service Protocol. For purposes of this Section 2.2, the responsibility of the ICT to "review and validate" shall mean that the ICT will take reasonable steps to ensure that the data inputs are properly loaded and reflected in the Transmission Provider's modeling processes and that the resultant AFC and/or ATC values (i) reasonably reflect the application and product of the Transmission Provider's modeling processes and (ii) are reasonably consistent with the current topology of the Entergy Transmission System.

2.3 Data Inputs Included in Seasonal and Monthly Base Case Models

2.3.1 System Topology

All seasonal and monthly Base Case Models will include a detailed representation of the Entergy [system control area and transmission system]Control Area and Transmission System and any other [control areas]Control Areas embedded within the Entergy [control area]Control Area. All other systems outside of the Entergy footprint will be retained at the level of detail contained in the SERC regional cases.

The system topology represented in the seasonal Base Case Models will be updated at least quarterly and just prior to conducting a System Impact Study. Topology changes can include recently energized construction projects (new substations/lines/transformers, upgrades, conversions, etc.), corrections of transmission element modeling parameters (impedances, ratings, etc.), or the decommissioning of equipment.

2.3.1.1 Facilities Not In Service

Generally, transmission construction projects that have not been completed and are not currently in service will not be included in the Base Case Models used to evaluate TSRs. When transmission construction projects are completed, the system topology updates conducted prior to all System Impact Studies will capture the new facilities and include those facilities in the Base Case Models. There are three instances where transmission construction projects that are not in-service will nevertheless be included in Base Case Models:

- Where a Transmission Customer has committed to fund Supplemental Upgrades pursuant to Attachment T to the Tariff in order to obtain Network or Point-to-Point Transmission Service, those upgrades will be included in the Base Case Models starting in the season in which the service is expected to begin and for all seasons thereafter. Supplemental upgrades associated with signed block load additions are modeled in the season in which the load is expected to come in service, and all seasons beyond.

- Where an Interconnection Customer has committed to fund Supplemental Upgrades pursuant to Attachment T to the Tariff in order to obtain Interconnection Service, those upgrades will be included in the Base Case Models starting in the season in which the new generating facility is projected to be in service and for all seasons thereafter, provided that the generating facility has executed [an IOA]a

Large Generator Interconnection Agreement (LGIA) under the [LGIP]Large Generator Interconnection Procedures (LGIP).

- Where the Transmission Provider has committed to fund an upgrade in the Construction Plan, those upgrades will be included in the Base Case Models starting in the season in which facilities are expected to be complete and for all seasons thereafter.

Any TSR that is accepted and confirmed based on the assumption that a Supplemental Upgrade or an upgrade in the Construction Plan will be in service at a future date, transmission service will be conditional until that upgrade actually goes into service. If the funding customer reneges on the funding commitment and the upgrade is necessary to accommodate the TSR, acceptance of the TSR may be retracted unless the Transmission Customer agrees to the fund the cancelled or delayed upgrade.

2.3.1.2 Transmission Facility Ratings

Transmission facility ratings for System Impact Studies will be determined in the same manner as for the calculation of [Available Flowgate Capability (AFC)]AFC values and in accordance with the procedures specified in Attachment C of the [AFC Manual]Tariff. These procedures will be filed with SERC in accordance with NERC Reliability Standard FAC-008.

2.3.1.3 TRM

Transmission Reliability Margin (TRM) is the amount of transmission transfer capability needed to provide a reasonable level of assurance that the system will remain reliable. TRM accounts for the inherent uncertainty in system conditions and its associated effects on transfer capability evaluations (such as System Impact Studies) and the need for operating flexibility to ensure reliable system operation as system conditions change.

The current value of TRM used in seasonal Base Case Models beyond the next eighteen months is five percent (5%). Because the need for applied margins decreases as analysis time approaches real-time, the current TRM value used in monthly Base Case Models is zero.

2.3.2 Existing Transmission Commitments and Rollover Rights

All confirmed [long-term firm transmission service]Long-Term Firm Transmission Service reservations (including service to Native and Network Load, and for Point-to-Point and Grandfathered customers) will be modeled in Base Case Models for the full term of service. To the extent [long-term firm transmission service]Long-Term Firm Transmission Service is entitled to rollover rights, that service will be modeled in Base Case Models for periods beyond the term of service, unless: (1) the transmission service agreement specifies that rollover rights are not available for the applicable period; or (2) the customer has failed to exercise its rollover rights by the specified deadline. Non-firm transmission service reservations (including Non-Firm Point-to-Point Service, Secondary "Network" Service) and Qualifying Facility (QF) PURPA "Puts" that do not obtain [Tariff]Transmission Service will not be included in Base Case Models. Long-Term Firm Point-to-Point Service will be modeled by dispatching the generating unit sourcing the reservation to the full amount specified in the reservation. The modeling of long-term firm service to Native Load, Network Load and grandfathered customers will be achieved by economically dispatching the resources that have obtained firm transmission service to a level sufficient to meet the load forecast for that customer. This process is described below under Load and Resource Forecasts.

The modeling of Long-Term and Short-Term TSRs will comply with the capacity rights established in the Tariff. TSRs in study mode ([SIS]System Impact Study or Facilities Study) will only be simulated in the evaluation of subsequent TSRs and only to the extent necessary to protect the superior capacity rights of the first-in-time TSRs. Specifically, Long-Term TSRs in study mode are included as prior transactions. To the extent that firm Short-Term TSRs are included in Base Case Models, a secondary analysis will be performed as necessary to determine if the Long-Term TSR can be accepted by "bumping" [conditional firm]pre-emptible Short-Term TSRs.

2.3.3 Load Forecasts

2.3.3.1 Seasonal/Annual Models

The load forecasts for the Entergy System peak load contained in the NERC and SERC regional models are based on the most recent full calendar year (January-December) coincident System peak demand. The most recent peak demand provided by load serving entities ("LSEs") is used because it reasonably reflects load adjustments (e.g., losses, load growth, load reductions, cogeneration) that would have occurred prior to the peak load period. If there are significant load changes (additions or reductions) that occurred within the System after the summer peak, the load forecast will be adjusted to take these changes into consideration. The LSEs, or their agents, are required to provide a load forecast annually to the Transmission Provider and the ICT, preferably

submitted in the Load and Resource Forecast Template. The types of loads represented in these load forecasts includes the loads of the following customer types: retail, wholesale (including wholesale load under the Tariff and grandfathered[, pre-Order No. 888] agreements), industrial, nuclear generating facility, and cogenerating facility. To create power flow models of the off-peak seasons, the Transmission Provider applies monthly scaling factors to load forecasts that are based on historical load data. Additionally, the peak load forecasts may be non-coincident peak to account for the large geographic footprint of the Entergy system. Forecasted loads are adjusted according to actual peak for the year, weather normalization, block load changes and growth trending.

2.3.3.2 Monthly Models

The derivation of load forecasts used in the monthly Base Case Models is described in [Section 3.1.1.2 of the AFC Process Manual]Attachment C to the Tariff.

2.3.4 Resource Forecasts and Generation Dispatch

2.3.4.1 Seasonal Models

The resource forecasts and generation dispatch levels represented in the monthly and seasonal Base Case Models will be based on the generation data included in the NERC and SERC regional models. This generation data is in turn based on the resource plans of the [load-serving entities (]LSEs[)] taking [transmission service]Transmission Service over Entergy's Transmission System. These LSEs include the Entergy Operating Companies (i.e., EAI, EMI, ELL, EGSI, and ENOI), wholesale [Tariff customers]Transmission Customers, and wholesale grandfathered contract customers. These LSEs, or their agents, are required to provide a resource plan annually to the Transmission Provider and the ICT, preferably submitted in the Load and Resource Forecast Template. The resource plan should include adequate generation resources to serve the LSE's projected peak load for the coming seasons. If an LSE fails to provide or update its resource plan, the last resource plan submitted by that LSE will be used in conjunction with OASIS data regarding long-term Network Resources if available. The resources identified in the various LSE resource plans will be dispatched on an economic basis to the extent the LSE provides sufficient cost information. Any generating resource having a Long-Term Firm Point-to-Point Reservation will be dispatched to the level of that reservation, which will not be attributable to serving any load other than the Point-to-Point load.

Should any LSE submit a resource plan that fails to provide sufficient generation to meet forecasted load, the forecasted load will be met by dispatching uncommitted generating resources interconnected to the Entergy Transmission System to serve the shortfall, including resources that have not reserved [~~long-term firm transmission service~~]**Long-Term Firm Transmission Service** to a specific sink or otherwise been included in the long-term resource plans of an LSE. Resources used to serve the shortfall in this manner will be dispatched according to the following priority:

a. Generating resources that have obtained [~~NRIS~~]**Network Resource Interconnection Service (NRIS)** under the LGIP, but have not obtained [~~long-term firm transmission service~~]**Long-Term Firm Transmission Service** (either Point-to-Point or Network) to a specific sink will be dispatched first. The dispatch level will be based on a uniform dispatch up to their uncommitted capacity (*i.e.,* the difference between their reserved service and the maximum output of the units).

b. Generating resources that are owned by LSEs but are designated as non-firm will be dispatched second. The dispatch level will be based on a uniform dispatch up to their uncommitted capacity (*i.e.,* the difference between their reserved service and the maximum output of the units).

c. Generating resources that have only obtained [~~ERIS~~]**Energy Resource Interconnection Service (ERIS)** under the LGIP (or its equivalent under pre-Order No. 2003 interconnection agreements) will be dispatched third. To the extent that all NRIS resources are at their maximum output in the model, then any remaining shortfall between an LSE's load and the resources used to serve that load will be met by using a uniform dispatch of the uncommitted capacity of these ERIS resources.

The resource forecasts and generation dispatch levels contained in the SERC regional models is updated when converting those models to the seasonal Base Case Models used in System Impact Studies. These updates will incorporate additional information provided by LSEs, as well as new TSRs confirmed on OASIS.

2.3.5 Monthly Models

The derivation of resource forecasts and generation dispatch levels used in the monthly Base Case Models is described in [Section 3.1.1.2 of the AFC Process Manual]Attachment C addressing the off-line monthly AFC [models]Models.

2.3.6 CBM

Capacity Benefit Margin (CBM) is not currently used in the seasonal or monthly Base Case Models [applied]application to TSRs.

3 Performing the System Impact Study

In order to determine if there is sufficient capability to accept the TSR and ensure reliable service for existing [transmission customers]Transmission Customers, a full network, load flow analysis will be performed for each Long-Term TSR and each Short-Term TSR that falls outside of the model horizon for the AFC process. The load flow analysis component of a System Impact Study consists of the following steps: (1) selecting and updating Base Case Models; (2) simulating the proposed transfer; and (3) evaluating the impact of the proposed transfer against applicable reliability criteria. Pursuant to Section 7.1 of the Transmission Service Protocol, the ICT will perform System Impact Studies as necessary to evaluate whether sufficient transmission capability exists to accommodate a TSR.

3.1 Selecting and Updating the Base Case Models

Seasonal Base Case Models exist for each season for a ten-year horizon and monthly Base Case Models exist for each month for an eighteen-month horizon. Seasonal Base Case Models will be applied to all TSRs (or any portions thereof) that extend beyond the horizon for which monthly Base Case Models are available. Monthly Base Case Models will be applied to all TSRs (or any portions thereof) that fall within the horizon for which monthly Base Case Models are available. Seasonal Base Case Models will be applied to all TSRs (or any portions thereof) that fall outside of the horizon for which monthly Base Case Models are available.

When selecting the Base Case Models applicable to a particular TSR, the most recent version of each model will be used to ensure that the Base Case Models include updated data inputs as described in Section 2 above. As described in Section 7.2.1 of the Transmission Service Protocol, before performing a specific System Impact Study, the applicable Base Case Models will be further updated to reflect additional information regarding Long-Term TSRs and changes in system topology, including transmission and generation outages. Additionally, any preempted TSRs will be removed from the Base Case Model. The updated Base Case Models will be subject to a final review to confirm that the updating process was performed correctly.

3.2 Simulating the Proposed Transfer

Once the appropriate Base Case Models have been selected and updated, load flow simulations will be performed. In general, where specific source/sink information is provided by the customer, the transfer will be simulated between the source/sink pair; where such information is not provided by the customer, the transfer will be simulated as described below.

3.2.1 Request for Point-to-Point Service

For Point-to-Point TSRs that are considered "imports" (*i.e.,* TSRs that are sourced from external [control areas]Control Areas and that sink "into" the Entergy Control Area) a transfer will be simulated in one of two ways:

If the source is located in a "first–tier" [control area]Control Area (*i.e.,* a neighboring [control area]Control Area with direct ties to the Entergy Control Area) and the specific generating unit sourcing the TSR is known, that specific generating unit will be scaled up to simulate the transfer into the Entergy Control Area. If no generator is specified (*i.e.*, the source is specified as the whole [control area]Control Area), the Study will be performed assuming generation will be scaled up from the most constraining generator on the limiting element identified to effect the transfer into the Entergy Control Area. The generation of the customer submitting the TSR will be ramped down based on the customer's specified dispatch or, if the customer does not provide such a dispatch, based on a *pro rata* scale down of the requesting customer's existing resources within the Entergy Control Area.

If the source located in a "second–tier" [control area]Control Area (*i.e.,* a [control area]Control Area with no direct ties to the Entergy Control Area), the Study will

be performed by proportionally increasing all generation in the source [control area]Control Area to effect the transfer into the Entergy Control Area. The generation of the customer submitting the TSR will be ramped down based on the customer's specified dispatch or, if the customer does not provide such a dispatch, based on a *pro rata* scale down of the requesting customer's existing resources within the Entergy Control Area.

For Point-to-Point TSRs that are considered "exports" (*i.e.,* TSRs that are sourced from inside the Entergy Control Area and that sink outside of the Entergy Control Area), the Tariff requires that specific generating unit be identified. Therefore, the transfer will be simulated by increasing the dispatch of that generating unit. If a designated source is modeled online in the base case at a level that does not allow for transfer (i.e., generator at or close to maximum generation amount), then the generator at the designated resource will be scaled down and other units inside the designated [control area]Control Area will be scaled up economically in an equivalent amount. The generation within the sink [control area]Control Area will be ramped down proportionately.

For Point-to-Point TSRs that are considered "through" transactions (*i.e.,* TSRs that both source and sink outside the Entergy [control area]Control Area), one transfer will be simulated using the same method for "imports" and another transfer will be simulated using the method for "exports."

3.2.2 Requests to Designate New Network Resources

In accordance with Sections 28, 30 and 32 of the Tariff, existing Network Customers may designate new Network Resources and undesignate existing Network Resources.[Under Entergy's Transmission Business Practices Manual, there] There are two different methods for simulating a transfer associated with the designation of a new Network Resource: (1) incremental; and (2) [displacement/delisting]undesignation. At least initially, all requests to designate a new Network Resource will be studied through the incremental method. Existing Network Customers will also have the option of requesting the Study include the [delisting/displacement]undesignation method in the event that service cannot be accepted without transmission upgrades or redispatch under the incremental method.

The requirements [and business practices]associated with [Delisting/Displacement]the undesignation option are discussed more fully in [Entergy's Transmission Business Practices Manual and will not be repeated here]Attachment E. For purposes of this[System Impact Study Manual] Attacment D, the essential distinction between the two options lies in the manner in which the transfer is simulated. All other Base Case Model

data, assumptions and criteria are the same. The exact method for simulating transfers under each of these two options is described below.

3.2.2.1 Incremental Method

Under the incremental method, the proposed Network Resource is modeled as an additional Network Resource above and beyond the existing Network Resources for that customer. This allows the new Network Resource to be designated without terminating an existing Network Resource. The incremental method involves simulating the transfer associated with the new Network Resource by first reducing the Network Load by the same MW amount requested for the new Network Resource designation (except that the load will never go below zero) and then next simultaneously ramping up both the new Network Resource and the Network Load to the level requested for the new Network Resource. This evaluation is simulated in two ways, generation to generation and generation to load. The transfer to generation will be from the study unit to the customer's existing designated Network Resources. The transfer to load will be from the study unit to the Network Customer's load. It will be performed by first reducing the Network Customer's load by the requested amount and economically dispatching the existing Network Resources to the new load level. The transfer will then be simulated from the study generator to the Network Customer's load. These different analyses are performed to differentiate the constraints used to serve the load and the constraints caused by the new generator.

3.2.2.2 [Delisting/Displacement]Undesignation Method

Under the [delisting/displacement]**undesignation** method, the proposed Network Resource is modeled [as a delisting/displacement]**through the undesignation** of some subset of the Network Customer's existing Network Resources. **The Network Customer will supply a list of the specific generating units that will be undesignated.** This allows the new Network Resource to be designated only if the capacity rights of the[displaced/delisted] **undesignated** Network Resources are surrendered. The[delisting/displacement] **undesignation** method involves simulating the transfer associated with the new Network Resource by simultaneously ramping up the new Network Resource and ramping down some subset of the Network Customer's existing Network Resources. [In selecting which existing Network Resources will be ramped down and to what extent, all Network Resources for which the Customer has firm network service and shall study the most cost effective mix of resources for delisting/displacement based on estimated variable production costs for those Network Resources. Alternatively, the Network Customer can choose to supply a list of the

specific generating units that may be considered, including cost information to be used in the Study.]However, the evaluation of the transmission service will be processed taking proper account of all competing transmission service requests of higher priority.

3.2.3 Requests to Initiate Network Service

A request to initiate Network Service involves a "first-time" request for Network Service, including: (1) an existing Network Customer that is seeking Network Service for a new Network Load under a new Service Agreement; (2) a requesting customer that was previously taking service under a grandfathered[, pre-Order No. 888] agreement; and (3) a requesting customer is otherwise not currently a Network Customer under the Tariff.

All requests to initiate Network Service will be studied by first removing the power flow impact of prior service to that load included in the Base Case Models (if any) and then by simulating the transfer using the incremental method described above in Section 3.2.2.1.

3.2.4 Requests to Designate PPAs As Network Resources

Network Customers may designate power purchase agreements as Network Resources pursuant to the Tariff and related business practices. The request is made over OASIS in the [the]same manner as other requests for designating Network Resources. These TSRs will be performed using the same methods described above in Sections 3.2.2.1 and/or 3.2.2.2. If the Customer seeks to designate a "Liquidated Damages" contract or "Slice of the System" contract as a Network Resource, the customer must provide [sufficient information]the required attestation so that the request may be studied. If the generator supplying the power purchase is located on the Entergy Transmission System, the Transmission Customer must identify the bus bar location of the generator. [If the specific generator supplying the power purchase agreement is unknown far in advance of real-time operations, the power purchase agreement may still be designated as a Network Resource, but the Customer will have to obtain a specific System Impact Study or AFC analysis that confirms that the deliverability of the specific generator prior to scheduling service under the Power Purchase Agreement. If the the generator is off the Entergy Transmission System, the control area in which the generator is located and the interface over which energy will flow will be sufficient]When designating an off-system resource, the following information must be provided with the request and posted on OASIS: (1) identification of the resource as an off-system resource; (2) amount of power to which the customer has rights; (3) identification of the Control

Area (s) from which the power will originate; (4) delivery point(s) to Entergy's Transmission System; and (5) transmission arrangements on the external transmission system(s).

3.3 Evaluating the Reliability Impact of the Proposed Transfer

Once the impact of the proposed transfer is simulated in the Base Case Model, the resulting "change" case will be evaluated to determine if allowing the proposed transfer is consistent with all applicable reliability criteria and standards, including the following:

- NERC Reliability Standards
- SERC reliability criteria
- Thermal Limits specified in Section 3.3.1
- Contract path limits

These standards establish three general types of limits that restrict the ability of the Transmission System to reliably accommodate power transfers: thermal, voltage and stability. The System Impact Study will analyze thermal limits pursuant to these criteria and standards and, to the extent thermal limits are identified, an analysis of voltage issues will be conducted. Short-circuit and stability issues will only be analyzed as part of the Facilities Study process.

3.3.1 Thermal Analysis

As part of the System Impact Study, a [Direct Current (]DC[)] contingency analysis will be performed. This flow-based analysis will consider the impact of single transmission element contingencies on all monitored elements. The analysis will be conducted using a full monitored element list and a full contingent element list. The monitored and contingent element list will include all transmission facilities at 115kV or higher. If the proposed transfer involves **a** generating unit that is located on the 69kV transmission system, the monitored and contingent element list will also include all transmission facilities at 69kV and greater. The thermal violation thresholds are the same as those specified for the NERC Reliability Standard TPL-001 and 002 contingency evaluations in which facility loadings must be within their normal rating (RATE A).

The DC contingency analysis will identify any monitored transmission facility that exceeds the thermal limits. An Outage Transfer Distribution Factor ("OTDF") of 3% will be used so that facilities with an OTDF below the 3% threshold will not be considered a

valid limit. If the OTDF for a particular facility is equal to or greater than the 3% threshold, then the facility will be considered a valid limit to the transfer. To the extent an overloaded facility had already exceeded the applicable thermal limit *prior* to simulating the proposed transfer, the overload will not be considered a valid limit unless the proposed transfer *increases* the level/severity of the overload.

All valid thermal limits identified by the System Impact Study will be examined to determine whether: (1) non-coincident generation or transmission outages are contributing to the overload; or (2) the dispatch assumptions designed to make up for the short-fall in an LSEs resource plan under Section 2.3.4 above are contributing to the overload. With respect to outages, the applicable seasonal or monthly model may be divided into smaller models to evaluate [the]whether the proposed transfer produces the same or similar overloads when the non-coincident outages are modeled separately. If it does not, then the limit may not be valid. With respect to short-falls in [an]**a** LSEs resource plan, the NRIS, non-firm and ERIS resources dispatched on a *pro rata* basis under Section 2.3.4.1 will be preempted (*i.e.*, the dispatch will be modified) to eliminate the impact of those resources on the elements limiting the proposed transfer.

3.3.2 Voltage and Short-Circuit and Stability Analyses

Voltage, short-circuit and stability issues will only be analyzed as part of the Facilities Study process.

4 Developing Mitigation Plans

To the extent the System Impact Study identifies violation of thermal or voltage reliability limits, the Study will also consider mitigation options that would eliminate the violations and allow for the service to be accepted. Pursuant to Section 7.1 of the Transmission Service Protocol, the Transmission Provider will be responsible for developing the mitigation plan to address any constrained transmission elements. The Transmission Provider will document and supply to the ICT all studies, analyses and research conducted in connection with the mitigation options. The ICT will review and validate all proposed mitigation plans to ensure that such changes are consistent with the criteria outlined below. For purposes of this Section 4, the responsibility of the ICT to "review and validate" shall mean that the ICT will review the inputs and results of any study or analysis and confirm that the study results reasonably reflect the application and product of the criteria specified in this Section 4.

4.1 Evaluating Transmission Upgrade Options

Each System Impact Study that identifies a limiting element that constrains the proposed transfer will also provide a high-level cost estimate of transmission upgrades necessary to mitigate the loading on the identified transmission element. **The System Impact Study shall specifically identify any system constraints by transmission element or flowgate.** Because of the time frames involved in conducting System Impact Studies, the estimated costs of transmission upgrades will be based on: (1) to the extent available, any previous System Impact Study or Facilities Study that estimated the cost of the upgrade in question; or (2) a dollar per mile cost estimate where new transmission lines are required. *The upgrade costs identified in System Impact Studies are planning estimates only and should be expected to change during the more detailed Facilities Study process.*

4.2 Evaluating Conditional Firm Options

If the Transmission Customer requests a study of conditional firm service as part of a Long-Term Point-to-Point TSR, the System Impact Study shall identify conditional curtailment options, including: (1) the specific system condition(s) when conditional curtailment may apply, including, but not limited to, designation of limiting transmission elements, such as a transmission line, substation or flowgate ("Condition Option"); and (2) the annual number of hours when conditional curtailment may apply ("Hourly Cap Option").

A Transmission Customer must select either the Condition Option or the Hourly Cap Option when its service may be curtailed. Such information shall be included in its conditional firm service agreement. If the Transmission Customer selects the Hourly Cap Option, the Transmission Provider has the flexibility to conditionally curtail the customer for any reliability reason during those hours, including but not limited to, the system conditions identified in the System Impact Study. A secondary network curtailment priority will apply for the hours or specific system conditions when conditional firm service is conditional. During non-conditional periods, conditional firm service is subject to *pro rata* curtailment consistent with the curtailment of other long-term firm service.

- **Transmission Customers Agreeing to Fund Upgrades. If a Transmission Customer commits to paying the costs associated with upgrades necessary to provide the requested service on a fully firm basis, the Condition Option or the Hourly Cap Option identified shall remain in effect until such time as**

the upgrades have been completed. The Service Agreement shall specify a good faith estimate of upgrade costs as determined through the Facilities Study. The Transmission Customer, however, will be responsible for the final costs of any necessary upgrades as determined after the completion of the upgrade.

- Transmission Customers Declining to Fund Upgrades. If a Transmission Customer is unwilling to commit to a Facilities Study or the payment of network upgrade costs, the Transmission Provider and the ICT shall have a periodic right to reassess the conditions or hours under which the transmission provider may conditionally curtail the service. This reassessment may occur every two years during the term of the service. Reassessments may not be performed during intervening periods. The Transmission Provider and the Transmission Customer, in negotiating the applicable Service Agreement, shall coordinate the timing of the biennial reassessment with the deadline for declaring rollover intent for the service at issue. The Transmission Customer will receive service for the requested term unless the transmission provider determines through its biennial reassessment that the conditional firm service can no longer be reliably provided. The Transmission Customer may also choose to terminate the service at the time of reassessment if the service no longer meets its needs.

  If a change to conditional curtailment conditions is required due to a reassessment, the ICT must provide the reassessment study to the customer along with a narrative statement describing the study and reasons for changes to the curtailment conditions no later than 90 days prior to the date for imposition of these new conditions or requirements. The ICT shall assess the conditions based on two years of service or the continuation of the term of service, whichever is less.

- Pricing of Conditional Firm Option. The conditional firm service option is considered a variation of Long-Term Firm Point-to-Point Transmission Service and will be priced at the rate for Long-Term Firm Point-to-Point Transmission Service, as set forth in the Entergy Tariff.

- Filing of Service Agreements. Service Agreements that incorporate planning redispatch or conditional firm options, and any amendments to such agreements, are considered non-conforming agreements, which shall be filed with the Federal Energy Regulatory Commission pursuant to section 205 of the Federal Power Act. The Service Agreement shall specify the relevant congested transmission facilities and whether the transmission

provider will provide conditional firm service in order to provide the Long-Term Firm Point-To-Point Transmission Service.

[4.2]4.3 Evaluating Redispatch Options

If requested by the Transmission Customer, the System Impact Study for a Long-Term POINT-TO-POINT TSR will also contain an evaluation of redispatch options for alleviating thermal overloads associated with the proposed transfer. The System Impact Study shall identify: (1) system constraints identified with specificity by transmission element or flowgate, for which redispatch will be provided; and (2) options for redispatch of the Transmission Provider's Network Resources, including a non-binding estimate of the incremental cost of redispatch. For customers requesting the study of redispatch options, the System Impact Study shall also identify: (1) all resources, whether available or not, located within the Entergy Control Area that can significantly contribute toward relieving the system constraint; and (2) the impact of each identified resource on the congested facilities. If the ICT possesses information indicating that any resource outside the Entergy Control Area could relieve the constraint, it shall identify each such resource in the System Impact Study. This requirement does not obligate the ICT to undertake any additional investigation or study to identify generation options located outside of the Entergy Control Area.

The System Impact Study will consider the availability of the Transmission Provider's resources to provide redispatch. Redispatch of the Transmission Provider's resources will not be available [during periods when the forecasted Native Load requirements exceed]if doing so would: (1) degrade or impair the reliability of service to Native Load Customers, Network Customers and other Transmission Customers taking Firm Point-to-Point Service; or (2) interfere with the Transmission Provider's [currently available Network Resources.]ability to meet prior firm contractual commitments to others. The Transmission Provider may consider the impact of the redispatch service in reducing its reserve margin below that necessary to maintain reliability or causing a single contingency to overload the system in determining whether the service can be reliably provided. The System Impact Study process will examine Network Resources over which the Transmission Provider has operational control, but will not evaluate the opportunity to provide redispatch by making additional purchases for that purpose.

[Although there is no requirement under the Tariff to identify redispatch options from resources for which the Transmission Provider does not currently have rights or from resources of other Network Customers, the Transmission Provider does allow Network

~~Customers to~~]**A Customer may** request an analysis of the Customer's ability to redispatch its own [~~Network Resources~~]**resources** in a manner that will allow for the new transmission service without the need to construct transmission upgrades. [~~If redispatch is available for only a portion of the requested service period, the TSR will be granted conditionally based on the Network Customer's obligation to obtain additional resources to continue the redispatch in later years. To the extent that the overload necessitating the redispatch existed in the Base Case Model before the proposed transfer was simulated and was only exacerbated by the transfer, the System Impact Study will only require redispatch sufficient to mitigate the incremental portion of the overload attributable to the proposed transfer.~~]**A Customer also can arrange for its own planning redispatch through bilateral markets and submit plans to the ICT for such planning redispatch. Such arrangements must be sufficiently detailed and coordinated with the ICT and the Transmission Provider to ensure that reliability is maintained. Postings of third party offers on the Transmission Provider's OASIS shall be permitted in accordance with the requirements of Order No. 890 and subsequent Commission orders.**

- **Transmission Customers Agreeing to Fund Upgrades. If a Transmission Customer commits to paying the costs associated with upgrades necessary to provide the requested service on a fully firm basis, the redispatch solution identified shall remain in effect until such time as the upgrades have been completed. The Service Agreement shall specify a good faith estimate of upgrade costs as determined through the Facilities Study. The Transmission Customer, however, will be responsible for the final costs of any necessary upgrades as determined after the completion of the upgrades.**

- **Transmission Customers Declining to Fund Upgrades. If a Transmission Customer is unwilling to commit to a Facilities Study or the payment of network upgrade costs, the Transmission Provider shall have a periodic right to reassess the planning redispatch required to keep the service firm. This reassessment may occur every two years during the term of the service. Reassessments may not be performed during intervening periods. The Transmission Provider and the Transmission Customer, in negotiating the applicable Service Agreement, shall coordinate the timing of the biennial reassessment with the deadline for declaring rollover intent for the service at issue. The Transmission Customer will receive service for the requested term unless it is determined through a biennial reassessment that the redispatch solution can no longer be reliably provided. The Transmission Customer may also choose to terminate the service at the time of reassessment if the service no longer meets it needs.**

If a change to the redispatch requirements is proposed due to a reassessment, the ICT must provide the reassessment study to the customer along with a narrative statement describing the study and reasons for changes to the redispatch requirements no later than 90 days prior to the date for imposition of these new conditions or requirements. The reassessment shall be based on two years of service or the continuation of the term of service, whichever is less.

- Pricing of Redispatch. The pricing of redispatch shall be determined in accordance with Attachment T of the Tariff.

- Filing of Service Agreements. Service Agreements that incorporate planning redispatch, and any amendments to such agreements, are considered non-conforming agreements, which shall be filed with the Federal Energy Regulatory Commission pursuant to section 205 of the Federal Power Act. The Service Agreement shall specify the relevant congested transmission facilities and whether the transmission provider will provide planning redispatch in order to provide the Long-Term Firm Point-To-Point Transmission Service.

[4.3]4.4 Operating Guides

Operating Guides are not used in the evaluation of [Transmission Service Requests]TSRs, with some exceptions. Those Operating Guides that are implemented automatically (with no operator intervention) will be used. These Operating Guides will be posted on OASIS.

5 The System Impact Study Report

All System Impact Study Reports will be made available to requesting customers as required under the Commission's OASIS regulations. Although these regulations do not require posting the actual studies on OASIS, Entergy's business practice is to post all System Impact Studies on OASIS for downloading by customers. The ICT will be responsible for finalizing and posting System Impact Study Reports on OASIS as soon as the study is completed. All System Impact Study Reports will contain the following information at a minimum:

- the transaction data associated with the TSR, *i.e.,* OASIS ID number, [~~POR, POD~~]**Point of Receipt, Point of Delivery**, direction, amount requested and time period requested;
- the Base Case Models and power flow software used to evaluate the TSR;
- a general description of the updated data inputs included in the Base Case Models;
- the confirmed and unconfirmed transactions with a higher priority that were included in the Base Case Models;
- the method used to simulate the proposed transfer;
- the results of any redispatch analysis requested by the Customer if redispatch was necessary to accept the request;
- whether the Transmission Customer is required to match the term of a competing request to obtain the service ;
- whether the acceptance of the TSR is conditional due to the fact that the service is dependent upon a transmission facility that is not currently in-service as described in Section 2.3.1.1;
- the comments of the Transmission Provider and any areas of disagreement pursuant to Sections 7.1.3 and 7.1.4 of the Transmission Service Protocol; and
- whether there was sufficient Available Transfer Capability (ATC) to grant the request and the amount of ATC that was determined to be available.

Additionally, if the System Impact Study does not accept the full amount of the TSR, the System Impact Study Report will also include the following information:

- the limiting elements that prevented the request from being accepted in full; and
- the high-level, planning estimate of the costs associated with constructing the necessary upgrades to make service available.

6 Facilities Studies

The Transmission Customer may request a Facilities Study be conducted if the System Impact Study finds that additional transmission upgrades are necessary before the TSR can be accepted. The Facilities Study is an in-depth study of the upgrades required to reliably accommodate the TSR and will include a good faith estimate of the costs and time required to complete construction and initiate service. Facilities Studies are subject to the procedures and requirements set forth in [~~sections~~]**Sections** 19, 20 and 32 of the Tariff, as well as the Study practices described in this [~~Manual~~]**Attachment D**. Pursuant to Section 7.2 of the Transmission Service Protocol, the ICT shall tender a Facilities Study **agreement** as required under the Tariff. The Transmission Provider will conduct the Facilities Study using the Base Case Model provided by the ICT and the criteria defined in this [~~manual~~]**Attachment D**. The ICT will review and validate the Facilities Study as described in Section 7.2.3 of the Transmission Service Protocol. For purposes of this Section 6, the responsibility of the ICT to "review and validate" shall mean that the ICT will review the inputs and results of any study or analysis and confirm that the study results reasonably reflect the application and product of the facility study criteria specified in this Section 6. **The ICT shall post a listing of all Facilities Studies, to be made available upon request.**

6.1 Scope of a Facilities Study

A Facilities Study is performed pursuant to the request of a Transmission Customer whose Long-Term or Short-Term TSR cannot be accommodated without the addition of transmission upgrades. The results of such a study provide the customer with a list of necessary facilities, the estimated cost of those facilities, and the time required to provide the facilities needed to accommodate the requested transmission service.

The Facilities Study will include a "Project Execution Plan" comprised of the following elements:

- The work scope of the project, including:
    - Safety requirements
    - Rebuilding, reconductoring or new construction of transmission lines
    - Substation additions, modification and/or new substation construction

- Equipment addition, replacement, and/or modifications
- Relay modifications on Entergy's system
- Supervisory Control and Data Acquisition (SCADA) requirements
- Metering requirements
- Telecommunications requirements
- AGC requirements

- A list of assumptions used in developing the scope;
- An estimated project schedule;
- An estimated cost of the project, including equipment, engineering, procurement and construction work costs; and
- A risk assessment

6.2 Evaluating the Scope of Necessary Upgrades

When determining the scope of upgrades necessary to accommodate the TSR, the Facilities Study will examine the thermal and voltage requirements contained in the NERC Reliability Standards, SERC reliability criteria, and the Thermal Limits described in [Sections]Section 3.3.1 and the voltage limits specified for the NERC Reliability Standard TPL-001 and 002 contingency evaluations in which transmission bus voltages must remain within +/- 5% for TPL-001 and within +5% / -8% for TPL-002. Additionally, the impact of any new transmission facilities on stability and short circuit issues will also be evaluated. The Facilities Study will use the same Base Case Models as used for System Impact Studies, except that the most recent versions of those models will be used to the extent available.

As part of the reliability analysis, the Facilities Study will include an [Alternating Current (AC)]AC analysis of the Transmission System. Because of the nature of the AC analysis, TRM will not be used to determine the need for transmission upgrades during the Facilities Study stage. Redispatch alternatives described in Section 4.2 of this Manual may also be considered to the extent not requested in the System Impact Study

process. If after taking into account updates to the Base Case Models, the AC analysis, the elimination of TRM, and/or redispatch options, the TSR can be accepted without constructing upgrades, the TSR will be accepted over OASIS and the Customer will be notified.

To the extent that transmission upgrades are still necessary, the design of all necessary facilities will comply with the NERC Reliability Standards, SERC reliability criteria and the Thermal Limit described in [Sections]Section 3.3.1 and the Voltage Limit described in this [section. To the extent that the overload necessitating the upgrades existed in the Base Case Model before the proposed transfer was simulated and was only exacerbated by the transfer, the Facilities Study will identify the portion of the cost of the upgrade attributable to the new TSR]Section.

6.3 Cost Allocation of Transmission Upgrades

The final Facility Study Report will contain an analysis of whether the necessary upgrades qualify as Base Plan or Supplemental Upgrades [under Attachment T to the Tariff]and the cost allocation of such upgrades in accordance with Attachment T.

7 Posting of System Impact Study and Facilities Study Metrics

Consistent with the Transmission Service Protocol of Attachment S of the Tariff, the ICT will post the performance metrics listed below in Section 7.1 within fifteen days of the end of each quarter and these metrics will remain posted on Entergy's OASIS for three calendar years. The metrics listed in Section 7.1 will be calculated separately for TSRs for the SPO and non-affiliated Transmission Customers. The ICT will also aggregate studies associated with TSRs for short-term and long-term Transmission Service when calculating these metrics.

7.1 System Impact Study and Facilities Study Metrics.

The posting requirement described in Section 7.0 applies to the following metrics:

A. Process time from initial service request to offer of System Impact Study agreement pursuant to sections 17.5, 19.1 and 32.1 of the Tariff

- Number of new System Impact Study agreements delivered to Transmission Customers
- Number of new System Impact Study agreements delivered to the Transmission Customer more than 30 days after the Transmission Customer submitted its request
- Average time (days) from request submittal to change in request status
- Average time (days) from request submittal to delivery of System Impact Study agreement
- Number of new System Impact Study agreements executed

B. System Impact Study processing time pursuant to sections 19.3 and 32.3 of the Tariff

- Number of System Impact Studies completed
- Number of System Impact Studies completed more than 60 days after receipt of executed System Impact Study agreement
- Average time (days) from receipt of executed System Impact Study agreement to date when completed System Impact Study made available to the Transmission Customer
- Average cost of System Impact Studies completed during the period

C. Service requests withdrawn from System Impact Study queue

- Number of requests withdrawn from the System Impact Study queue
- Number of System Impact Studies withdrawn more than 60 days after receipt of executed System Impact Study agreement
- Average time (days) from receipt of executed System Impact Study agreement to date when request was withdrawn from the System Impact Study queue

D. For all System Impact Studies completed more than 60 days after receipt of executed System Impact Study agreement, average number of days study was delayed due to Transmission Customer's actions (e.g., delays in providing needed data)

E. Process time from completed System Impact Study to offer of Facilities Study agreement pursuant to sections 19.4 and 32.4 of the Tariff

- Number of new Facilities Study agreements delivered to Transmission Customers
- Number of new Facilities Study agreements delivered to Transmission Customers more than 30 days after the completion of the System Impact Study
- Average time (days) from completion of System Impact Study to delivery of Facilities Study agreement
- Number of new Facilities Study agreements executed

F. Facilities Study processing time pursuant to sections 19.4 and 32.4

- Number of Facilities Studies completed
- Number of Facilities Studies completed more than 60 days after receipt of executed Facilities Study agreement
- Average time (days) from receipt of executed Facilities Study agreement to date when completed Facilities Study made available to the Transmission Customer
- Average cost of Facilities Studies completed during the period
- Average cost of recommended upgrades for Facilities Studies completed during the period

G. Service requests withdrawn from Facilities Study queue

- Number of requests withdrawn from the Facilities Study queue
- Number of Facilities Studies withdrawn more than 60 days after receipt of executed Facilities Study agreement
- Average time (days) from receipt of executed Facilities Study agreement to date when request was withdrawn from the Facilities Study queue

H. For all Facilities Studies completed more than 60 days after receipt of executed Facilities Study agreement, average number of days study was delayed due to Transmission Customer's actions (e.g., delays in providing needed data)

7.2 Posting Metrics In the Event of Section 19.9 Notification Filing

The ICT will post the following metrics in the event that the Transmission Provider submits a notification filing to FERC pursuant to Section 19.9 of the Tariff:

- Average time, across completed System Impact Studies, of the employee-hours expended per completed System Impact Study
- Average time, across completed Facilities Studies, of employee-hours expended per completed Facilities Study
- Number of employees devoted to processing System Impact Studies
- Number of employees devoted to processing Facilities Studies.

These metrics will be posted starting the quarter after the notification filing is submitted to FERC. The ICT is not required to post these additional performance metrics separately for affiliates' and non-affiliates' TSRs and for short-term and long-term Transmission Service. The ICT is instead required to aggregate studies associated with requests for short-term and long-term TSRs when calculating these additional metrics. The ICT is not required to post the additional metrics if, after evaluating the Transmission Provider's notification filing, the FERC concludes that delays in completing studies listed in Section 7.1 are due to extenuating circumstances. However, the ICT is required to post the additional metrics while the FERC considers the Transmission Provider's notification filing.

8. CLUSTERING OF TRANSMISSION STUDIES

The ICT is not required to study TSRs in clusters, but will do so upon the request of a Transmission Customer when such a request can be reasonably accommodated. Under such circumstances, clustering shall be implemented on the basis of queue position and source locations. If the ICT elects to study TSRs using clustering, all TSRs in the cluster must be in consecutive order and be from the same source, hereinafter referred to as the "Queue Cluster." The deadline for completing all System Impact Studies and Facilities Studies shall be in accordance with Sections 19 and 32 of the Tariff.

Transmission Customer can only opt out of a Queue Cluster and request an individual study or inclusion in a new Queue Cluster during the period of time after the completion of the applicable System Impact Study and before the applicable Facilities Study. In the event that a Transmission Customer opts out of a Queue Cluster, the costs of the System Impact Study shall be allocated pro rata among the original Transmission Customers in the Queue Cluster. The costs associated with the Facilities Study will be allocated pro rata among the remaining Transmission Customers. The Transmission Customer that opted out of the Queue Cluster can elect to enter the study queue by requesting a new individual study or as part of a new Queue Cluster.

TSR MANUAL COMPARED TO ATTACHMENT E

[~~Entergy Services, Inc.~~]

[~~As Agent for~~]
[~~Entergy Arkansas, Inc.~~]
[~~Entergy Gulf States, Inc.~~]
[~~Entergy Louisiana, LLC~~]
[~~Entergy Mississippi, Inc.~~]
[~~Entergy New Orleans, Inc.~~]

ATTACHMENT E

TRANSMISSION SERVICE REQUEST [~~PROCESSING~~]CRITERIA

[~~MANUAL~~]

[

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Division of Responsibilities Between Entergy Transmission and the ICT

1. The division of responsibilities between the Transmission Provider and the Independent Coordinator of Transmission (ICT) in performing duties related to the procedures described herein is controlled by Attachment S to the Tariff, including the ICT Protocols appended to Attachment S. Any inconsistency between this [~~manual~~]**Attachment E** and Attachments S or the ICT Protocols shall be resolved in favor of Attachment S and the ICT Protocols.

2. The term "Entergy" is used to delineate the requirements or procedures applicable to the Entergy transmission system and [~~OATT~~]**Tariff** generally, but is not used to delineate the division of responsibilities. Instead, the term "Transmission Provider" is used to delineate those duties that will be performed by Entergy personnel, as opposed to the ICT.

Procedures for Loss Compensation Service

1. Purpose Capacity and energy losses occur when Entergy delivers electricity across its transmission facilities for a Transmission Customer. Transmission Service pricing does not include losses, and Entergy does not provide for the losses. Transmission Customers are required to make their own arrangements for providing for losses.

2. Providing for Losses

2.1 NERC e-tags are used as [~~transmission service~~]**Transmission Service** schedules on the [~~Entergy system~~]**Transmission System**. Under Section 3.2.3 of the Transmission Service Protocol, the Transmission Provider will process and evaluate transmission service schedules, subject to the ICT's authority to direct changes to such schedules as the Reliability Coordinator. All NERC tags utilizing Entergy's Point-to-Point [~~transmission service~~]**Transmission Service** must indicate how the transmission losses will be supplied in the loss accounting section of the tag.

2.2 For each Point-to-Point transaction, the losses for that transaction must be provided at the point of receipt. This applies to all Point-to-Point transactions regardless of whether or not the losses are supplied from internal sources. Loss accounting must be supplied or the tag will not be implemented.

2.3 The loss factor on the Entergy system is 1.03. The energy received at Entergy's [~~point~~]**Point** of [~~receipt~~]**Receipt** must be equal to the energy scheduled for delivery to the point of delivery multiplied by the loss factor of 1.03, and rounded up to the next whole MW.

Procedures for
Scheduling Service and Emergency Assistance

1. Scheduling Service Entergy will accept new schedules up to twenty minutes prior to the start of the schedule instead of 20 minutes prior to the top of the hour. The following guidelines should be followed for submitting partial hour schedules:

   1.1 New schedules or schedule changes must be submitted no later than 20 minutes prior to start. New schedules or schedule changes received after the twenty minute deadline will be deemed LATE and will be denied for anything other than emergency reliability reasons.

   1.2 The schedule must be at least 10 minutes in length.

   1.3 The [~~customer~~]**Transmission Customer** must have enough reservation(s) to cover the instantaneous MW amount. For example, if a customer wishes to schedule 100 MW for 15 minutes, then the reservation must be for 100 MW for at least the entire hour and not for the integrated amount of 25 MWH.

   1.4 The smallest increment of service that Entergy offers is fixed hourly (starts at the beginning of a clock hour and stops at the end of a clock hour**)**; therefore, if the schedule crosses the hour, the [~~customer~~]**Transmission Customer** must have enough reservation(s) in each hour to cover the instantaneous MW amount. For example if a [~~customer~~]**Transmission Customer** wishes to start a 100 MW schedule at 00:45 and end it at 01:15, then the [~~customer~~]**Transmission Customer** must have a reservation for 100 MW for the entire hour ending 1 and the entire hour ending 2.

   1.5 As with any schedule, to the extent neighboring Control Areas are involved, they must also approve the details and timing of the submitted schedule.

   1.6 Under Section 3.2.3 of the Transmission Service Protocol, the Transmission Provider will process and evaluate all service schedules, subject to the ICT's authority to direct changes to such schedules as the Reliability Coordinator.

2. Arranging for Emergency Assistance Entergy requires all [~~customers~~]**Transmission Customers** receiving emergency assistance

that uses [~~transmission service~~]**Transmission Service** on Entergy's system to submit an OASIS reservation after the fact.

2.1 It is the responsibility of the sink [~~control area~~]**Control Area** to make sure that the reservation is entered. For sink [~~control areas~~]**Control Areas** that are not [~~network customers~~]**Network Customers** of Entergy the type "PTP EMERGENCY ASSIST" should be used. For sink [~~control areas~~]**Control Areas** that are [~~network customers~~]**Network Customers** of Entergy the type "NETWORK EMERGENCY ASSIST" should be used.

2.2 The reservations covering the emergency assist should be entered as soon as practicable, but within 24 hours of the start of the emergency assist schedule.

2.3 Under Section 3.1 of the Transmission Service Protocol, the ICT will process and evaluate after the fact OASIS reservations for transmission service.

2.4 The reservations for emergency assistance should not utilize conditional firm service.

2.5 The customer must haved executed a valid Service Agreement with Entergy to request emergency service.

Procedures for Requesting, Confirming and Verifying Network Resources

1. Purpose

1.1 Under [~~Entergy's open access transmission tariff ("OATT")~~]**the Tariff**, Network Customers may designate Network Resources that generally fall within one of two categories: (1) generating facilities that the Transmission Customer directly owns or leases; and (2) executed power purchase contracts that commit the Transmission Customer to pay for non-interruptible power. Both types of Network Resources must be deliverable (i.e., there must be sufficient ATC to grant the service request), and each type of Network Resource must also meet the specific requirements in the [~~OATT~~]**Tariff** for that type of Network Resource.

1.2 The purpose of this document is to describe the procedures by which existing Network Customers must: (1) request and confirm Network Resource designations over Entergy's OASIS; and (2) [~~provide information necessary to verify~~]**attest** that the applicable [~~OATT~~]**Tariff** requirements have been met for each Network Resource request that is confirmed. This document is not intended as an exhaustive list of all requirements applicable to Network Resources or the procedures that apply when new Network Customers seek to designate Network Resources for the first time as part of the initial application for Network Integration Transmission Service ("NITS").

[~~1.3 The procedures described in this section will not become effective until the Transmission Provider and the ICT have reviewed (and modified if necessary) these procedures for compliance under Order 890. Once this review has been completed and any necessary modifications have been agreed to, the ICT will administer these procedures and the information required herein will be provided directly to the ICT.~~]

2. Submitting Requests Over OASIS

2.1 All requests by existing **Transmission** Customers to designate new Network Resources must be made over OASIS as a request for modification of service pursuant to Section 29 of the [~~OATT~~]**Tariff**.

2.2 Network Resource designations must be submitted prior to 12:00 noon CPT on the day prior to the day of service. Although the deadline for requests is 12:00 noon CPT, Network Resource designations should be submitted as soon as practicable to ensure that the ICT can evaluate the requests in time to allow commencement of service.

[~~3. Confirming Requests Over OASIS~~]

[~~3.1 Network Customers will have the option of submitting Network Resource requests as "Preconfirmed," provided that the information required to confirm that the Network Resource requirements have been met is available at the time the request is submitted. To qualify as "Preconfirmed," the request must include the contract reference number in the customer comment field of the OASIS request. If that information is not available, the Customer may still submit a request to designate the Network Resource, but may not submit it as "Preconfirmed." Network Resource requests that are submitted "Preconfirmed" will be moved automatically to a final status of "Confirmed" if transmission service is determined to be available. Except in the case of counter-offered requests, the Customer is not required to manually "Confirm" requests that are submitted "Preconfirmed."~~]

[~~3.2 For Network Resource requests that are not "Preconfirmed," the ICT will notify the Customer that transmission service is available by changing the request status on OASIS to "Accepted." Once a request has been "Accepted," the Customer must manually "Confirm" the request over OASIS by the deadlines specified in the NAESB business practices, which are outlined in Procedure 4.3.2 below; otherwise, the request will be automatically "Withdrawn." For requests of less than one year, the information required to confirm that the Network Resource requirements have been met must be available at the time the request is Confirmed. For requests of one year or longer, the information required herein must be available within 30 days of Confirmation. See Procedure 4.3.3 below.~~]

2.3 When designating an off-system resource, the following information must be provided with the request and posted on OASIS: (1) identification of the resource as an off-system resource; (2) amount of power to which the customer has rights; (3) identification of the Control Area(s) from which the

power will originate; (4) delivery point(s) to the Transmission System; and (5) transmission arrangements on the external transmission system(s).

2.4 In addition to the information required in Section 2.3, the Transmission Customer must also provide: (1) any operating restrictions (periods of restricted operation, maintenance schedules, minimum loading level of resource, normal operating level of resource); and (2) approximate variable generating cost ($/MWH) for redispatch computations. The information required by this Section 2.4 shall be masked on OASIS to prevent the release of commercially sensitive information. If no operating constraints are specified in the contract, or if no such constraints are relevant to an owned generation resource being designated, then such information should be reflected in the information posted on OASIS.

4. Providing Information to Verify New Network Resources

4.1 Information Required for Generating Facilities. For requests to designate generating facilities as Network Resources, Network Customers will provide [~~the following information to verify that the applicable requirements have been met: (1) information sufficient to show that the generating facility is owned or leased by the Customer; (2)~~]a standard "attestation" form verifying that ([~~a~~]**1**) the portion of the generating facility's output to be designated as a Network Resource is not committed for sale on a firm basis to non-designated third-party load and [~~is able to meet Network Load on a non-interruptible basis, and (b~~]**may only be curtailed for reliability reasons necessary to serve native load , and (2**) where the generating facility is not directly interconnected with the [~~Entergy transmission system~~]**Transmission System**, a firm transmission path has been established by the Customer to a point of delivery on the [~~Entergy transmission system. The standard attestation form can be found at: http://oasis.e-terrasolutions.com/documents/EES/Entergy_Network_Designation_Form.html.~~]**Transmission System. The ICT shall verify the firmness of the Network Customer's transmission arrangements on other systems. Conditional Firm Point-to-Point Transmission Service is sufficiently firm to import a designated network resource. However, designation of Network Resources within the Entergy Control Area on a conditional firm basis will not be allowed.**

Entergy has included the standard attestation form. This form is also posted on Entergy's OASIS.

4.2 Information Required for Power Purchase Agreements. For requests to designate power purchase agreements as Network Resources, Network Customers will provide[~~the following information to verify that the requirements for designating power purchase contracts as Network Resources have been met: (1) the power purchase contract itself; and (2~~] **(1**) a standard "attestation" form verifying that the power purchase contract meets the standards for designating a Network Resource[~~. The contract~~] and **may only be curtailed for reliability reasons necessary to serve Native Load; and (2) a firm transmission path has been established by the Customer to a point of delivery on the Transmission System. The ICT shall verify the firmness of the Network Customer's transmission arrangements on other systems. Conditional Firm Point-to-Point Transmission Service is sufficiently firm to import a designated Network Resource. However, designation of Network Resources within the Entergy Control Area on a conditional firm basis will not be allowed. The** standard attestation form must be provided for each request, even if the contract has been previously submitted for another request[~~. The standard attestation form can be found at: http://oasis.e-terrasolutions.com/documents/EES/Entergy_Network_Designation_Form.html.~~]**.**

4.2.1 An option contract may be designated as a Network Resource once the option is exercised to convert the transaction to a capacity purchase and the remaining Network Resource designation requirements are met.

4.2.2 A firm liquidated damages ("LD") contract may be designated as a [~~network resource as long as it may not be interrupted for economic reasons and the remaining Network Resource designation requirements are met~~]**Network Resource as long as the contract contains a "make whole" LD provision, such as that found in the EEI Master Contract's Firm LD Product and the WSPP Schedule C agreement. A "make whole" LD provision obligates the supplier, in the case of interruption for reasons other than force majeure, to make the aggrieved buyer financially whole by reimbursing them for the**

additional costs, if any, of replacement power. Conversely, contracts containing LD provisions that provide penalties at a fixed amount, or that otherwise do not require the seller to pay an aggrieved buyer the full cost of replacing interrupted power, are not acceptable.

4.2.3 A Transmission Customer may not designate as a Network Resource a "seller's choice" power purchase agreement which is sourced by generating units internal to Entergy's Control Area.

4.3 Timing of Submitting Required Information.

4.3.1 For Preconfirmed requests, the [~~executed contract and the~~]standard attestation form must be submitted at the time the request to designate the Network Resource is submitted.[~~All requests that are submitted as Preconfirmed without the required information will be "Annulled."~~] If the information required herein is not available at the time the request is submitted (e.g., where execution of the contract is contingent on the availability of transmission service), the **Transmission** Customer may still submit a request to designate the Network Resource, but should not submit the request as "Preconfirmed."

4.3.2 For Network Resource requests[~~of increments less than a year~~] that are not Preconfirmed, the Customer must provide information described herein no later than at the time the request to designate the Network Resource is "Confirmed." [~~The deadlines for confirming requests (and for providing the required information under these Procedures) are based on the standard NAESB business practices approved by FERC and are summarized in the table below. If the required information is not available by the deadline for Confirmation, the Customer may not Confirm the request and must allow the request to reach a final status of "Withdrawn." All requests that are "Confirmed" without the information required in Section 2 will be "Annulled."~~]

[Service Increment of OASIS Request]	[Deadline For Confirmation]
[Monthly]	[4 days]
[Weekly]	[48 hours]
[Daily (submitted > 24 hours in advance)]	[24 hours]
[Daily (submitted < 24 hours in advance)]	[2 hours]

[4.3.3 For Network Resource requests of a year or longer that are not Preconfirmed, the Customer must provide the information described herein no later than 30 days after the request to designate the Network Resource is "Accepted" by the ICT and Confirmed by the Customer, provided that the Customer has entered into a letter of intent to purchase a new resource at the time of the request.]

4.3.3 If the Network Customer does not include the attestation when it confirms the request or when it submits a pre-confirmed request, the ICT must notify the Network Customer within 15 days of confirmation that its request is deficient. Whenever possible, the ICT shall attempt to remedy deficiencies in the request through informal communications with the Network Customer. If such efforts are unsuccessful, the ICT shall terminate the Network Customer's request and change the status of the request on OASIS to "retracted." This termination shall be without prejudice to the Network Customer submitting a new request that includes the required attestation. The Network Customer shall be assigned a new priority consistent with the date of the new request.

4.4 Method of Submitting Required Information The standard attestation forms and any other required information should be faxed to the following fax number:[[insert number].] **(501) 663-1763.** Once the procedures described in this section become effective, the ICT will notify Network Customers of the fax number to be used when submitting the information required herein.

5. Secondary Network Service

5.1 Secondary Network Service must be requested in accordance with Section 18 of the Tariff, including the timing restrictions of Section 18.3.

5.2 A Transmission Customer may not use Network Service, instead of Point-to-Point Service, to deliver short-term energy purchases to the Transmission System that were not used to serve native load. Secondary Network Service may not be used for the purpose of serving off-system sales.

FORM FOR DESIGNATION OF NETWORK RESOURCES

As stated in Section 30.7 of [~~the Entergy Open Access Transmission~~]Tariff[~~("Tariff" or "OATT")~~], the Transmission Customer must demonstrate that it owns or has committed to purchase generation pursuant to an executed contract in order to designate a Network Resource. Alternatively, the Transmission Customer may establish that execution of a contract is contingent upon the availability of Network Integration Transmission Service under Part III of the Tariff. This form signifies that a valid contract has been executed or that a valid contract is contingent ONLY upon the availability of Transmission Service.

Please Fax form to the ICT Next Day office.

Customer: _____

Contract Reference #: _____

OASIS ID(s) #: _____

Note: If the request is "Preconfirmed," the OASIS ID number may be submitted as soon as it is received.

The transmission customer may fulfill the requirements of this form by completing either Option 1 or Option 2, set forth below.

OPTION 1: Designation of Generation Facility owned or leased by the Transmission Customer:

Step 1: Identify the OASIS IDs to which the proposed designation of generation facilities owned or leased by the Transmission Customer applies:

_____

Step 2: Check the following applicable boxes:

a) ☐ The Network Resource is not committed for sale on a firm basis to non-designated third-party load.

b) ☐ The Network Resource is able to meet Network Load on a non-interruptible basis.

c) ☐ The generating facility is deliverable to the [~~Entergy transmission system~~]**Transmission System** because either:

i) ☐ The generating facility is directly interconnected with the [~~Entergy transmission system~~]**Transmission System**; or

ii) ☐ The generating facility is not directly interconnected with the [~~Entergy transmission system~~]**Transmission System**, but a firm transmission path is established by the Transmission Customer to a point of delivery on the [~~Entergy transmission system~~]**Transmission System**.

Step 3: If the Transmission Customer checked the box c.ii. above, please indicate in the spaces below the Transmission Provider(s) and external OASIS IDs related to the firm transmission path.

Transmission Provider	OASIS ID(s)

NOTE 1: If the Transmission Customer cannot check boxes a) through c), then the Transmission Customer cannot designate a generation facility that it owns or leases as a Network Resource.

OPTION 2: Designation of a Power Purchase Contract as a Network Resource.

Step 1: Identify the OASIS IDs to which the proposed designation of executed power purchase agreements applies:

_____
____

Step 2: Check the following applicable boxes:

a) ☐ The purchase is under a finalized contract because either:

i) ☐ The purchase is under an executed contract; or

ii) ☐ The purchase is under an unexecuted contract, but execution is contingent ONLY upon the availability of [~~transmission service~~]**Transmission Service**.

b) ☐ The purchase is a firm power purchase that allows for interruption only for reliability reasons, not economic reasons.

c) ☐ The terms of the contract do not enable the Transmission Customer to avoid the financial consequences of owning a generating unit or committing to a purchase because either:

i) ☐ The contract commits the Transmission Customer to pay for the purchase; or

ii) ☐ The contract is an option contract but the option is exercised to convert the transaction to a capacity purchase and the remaining Network Resource designation requirements are met.

d) ☐ The contract is supplied by generating facilities that are deliverable to the [Entergy transmission system]Transmission System because either:

i) ☐ The generating facility is directly interconnected with the [Entergy transmission system]Transmission System; or

ii) ☐ The generating facility is not directly interconnected with the [Entergy transmission system]Transmission System, but a firm transmission path is established by the Transmission Customer to a point of delivery on the [Entergy transmission system]Transmission System.

e) ☐ The contract is a Liquidated Damages Contract with a "make whole" provision.

Step 3: If the Transmission Customer checked the box d.ii. above, please indicate in the spaces below the Transmission Provider(s) and external OASIS IDs related to the firm transmission path.

Transmission Provider	OASIS ID(s)

[*Step 4*: Submit power purchase contract to the ICT.]
[Note: The contract must be submitted for each request, even if it has been submitted previously for a different reservation.]

Issued by: [Randal] Randall Helmick, Vice President, Transmission
Effective: [November 17, 2006]July 13, 2007

Issued on:[May 18, 2007 July 13, 2007 Filed to comply with order of the Fed. Energy Reg. Comm'n, Docket No. ER05-1065-004, issued April 4, 2007.]

NOTE 2: If the Transmission Customer cannot check boxes a) through d), then the Transmission Customer cannot designate a power purchase contract as a Network Resource.

[~~CONSENT TO CONTRACT REVIEW: By completing this form, the Transmission Customer consents to the ICT auditing, if it determines necessary, of responses to same in order to ensure compliance with the requirements of Entergy's OATT.~~]

Signed by: _____ Printed Name: _____

Company:_____ Title: _____

Date: _____

Business Practice for

Designating and Undesignating Network [~~Resource Delisting/Displacement Studies~~]

[~~1.~~][~~Purpose~~]

[~~1.1 This business practice, in accordance with Sections 28, 30 and 32 of Entergy's Open Access Transmission Tariff (OATT) describes the study process for designating new Network Resources on a long-term basis (i.e., for durations of one year or more). The business practice provides Network Customers on the Entergy system with flexibility in selecting new long-term Network Resources under Section 30.2 and in terminating existing Network Resources under Section 30.3.~~]

[~~1.2 The procedures described in this section will not become effective until the Transmission Provider and the ICT have reviewed (and modified if necessary) these procedures for compliance under Order 890. Once this review has been completed and any necessary modifications have been agreed to, the ICT will administer these procedures and the information required herein will be provided directly to the ICT. ~~]**Resources**

1. **Study Options**

1.1 Network Customers will be offered the option of having their requests for designation of new-long term Network Resources studied subject to the "[~~delisting/displacement~~]**undesignation**" of existing resources as well as on an incremental basis.

[~~2.1.1 ~~][~~The terms "delisting" and "displacement" refer to study methodologies for evaluating new Network Resources. In general, a "delisting" study evaluates a new Network Resource as a long-term substitution for an existing Network Resource, while a "displacement" study evaluates a new Network Resource as a short-term substitution for an existing Network Resource. ~~]

[~~2.1.2 ~~][~~If the "delisting/displacement" option is selected, and the study indicates that service is available, the Network~~

~~Customer may receive firm service subject to the termination of the existing Network Resource(s) identified in the System Impact Study and that have previously been granted firm network service.~~]

1.2 Network Customers seeking designation of new long-term Network Resources may request that the study be performed in one of the following ways:

1.2.1 Incremental only: the Network Customer directs the ICT to study whether the proposed long-term Network Resource can be designated in addition to the Network Customer's existing Network Resources.

[~~2.2.2 ~~][~~Incremental and delisting/displacement: the Network Customer directs the ICT to study whether the proposed long-term Network Resource can be designated either on an incremental basis or through delisting/displacement of some subset of the Network Customer's existing long-term Network Resources. If the Network Customer selects this option, it will have an opportunity to confirm which of the existing Network Resources should be terminated under Section 30.3 of the OATT in order to qualify the proposed Network Resource. In order to confirm service granted pursuant to a de-listing/displacement study, the Network Customer must terminate the identified existing Network Resource(s) pursuant to Section 30.3 of the OATT. Pursuant to Section 28.4 of the OATT, delisted/displaced resources may be used on a Secondary Service (non-firm network transmission service) basis to supply the Network Customer's Network Load during the term of the designation of the new Network Resource.~~]

1.2.2]**Undesignation of Network Resources: Network Customers are required to undesignate Network Resources or portions thereof in order to make firm, third-party sales from those resources. In particular, Network Customers may only enter into a third-party power sale from a designated Network Resource if the third-party power purchase agreement allows the seller to interrupt power sales to the third party in order to serve the designated Network Load.**

1.2.3 **Requests to undesignate Network Resources that are submitted concurrently with a request to redesignate those Network Resources at a specific point in time shall be considered temporary terminations. Requests to undesignate Network Resources submitted without any concurrent request to redesignate those network resources shall be considered a request for indefinite termination of those Network Resources. After an indefinite termination of a resource, the customer has no continuing rights to the use of such resource and all future requests to designate that resource will be processed as if the customer was designating it for the first time under Section 30.2 of the Tariff.**

1.2.4 **A request for termination of a Network Resource that is concurrently paired with a request to redesignate that resource at a specific point in time will not result in the Network Customer permanently forfeiting rights to use that resource as a designated Network Resource. Any change in ATC that is determined by the Transmission Provider to have resulted from the temporary termination shall be posted on OASIS during this temporary period.**

1.2.5 **Network Customers shall not make firm third-party sales from any designated Network Resource without: (1) undesignating that resource for the period of the third-party sale pursuant to Section 30.3 of the Tariff; and (2) providing notice of such undesignation before the firm scheduling deadline.**

2. **Study Process**

2.1 In all cases, the ICT will study the Network Customer's new request on an incremental basis, consistent with current practice. If service cannot be granted for the new resource as an additional Network Resource for the Customer, then, if [~~option 2~~]**"undesignation"** has been selected by the Network Customer in the initial request, the ICT will identify which of the Network Customer's existing long-term Network Resources could be [~~delisted/displaced~~]**undesignated** so as to provide the requested designation for the new resource.

[3.2][The ICT will consider all Network Resources for which the Customer has firm network service and shall study the most cost effective mix of resources for delisting/displacement based on estimated variable production costs for the Network Resources. Alternatively, the Network Customer may choose to supply a list of the units that may be considered for delisting/displacement, and the variable costs to be used in the study.]

[3.2.1][If the Network Customer has chosen to have delisting/displacement studied, the ICT will supply the Network Customer with up to two potential delisting/displacement options, based on the System Impact Study and dispatch costs estimated by the ICT or supplied by the Network Customer. Each option may involve delisting/displacing more than one of the Network Customer's existing Network Resources and may also include some level of transmission upgrades.]

[3.2.2][The Network Customer will then have the opportunity to choose one or neither of the offered options. If the Network Customer chooses neither option but asks the ICT to study another delisting/displacement scenario, this will constitute a new request for service.]

[4.][Rollover Rights Associated with Delisted/Displaced Resources]

[4.1][Upon requesting service, the Network Customer will be required to specify the treatment for the new resources approved for service in the delisting/displacement study process and the associated delisted/displaced resource:]

[4.1.1][The Network Customer can elect to have rollover rights associated with the new resource. Network service for the delisted/displaced resource will then be terminated, and the delisted/displaced resource will be subject to a transmission study before it can be used as a Network Resource again in the future.]

[4.1.2][Alternatively the Network Customer can choose to have firm network service restored to the delisted/displaced resource after expiration of the granted service. In doing so, the Network Customer will forego the rollover rights of the new resource.]

[~~4.2~~][~~At the time the request for service is submitted, the Network Customer must specify the rollover rights treatment by indicating its choice in the OASIS "comment" field. If (and only if) the Network Customer's first choice for rollover treatment is not available, the ICT will study the other rollover option and, if available, offer that option to the Network Customer. If the Network Customer chooses to have rollover rights associated with the new Network Resource (*i.e.*, option 1), and a competing request for long-term firm point-to-point service is submitted from the same resource after the term of the original transaction with the Network Customer, the Network Customer's rollover rights to that resource may be impacted.~~]

[~~5.~~][~~Displacements of Existing Network Resources Through the AFC Process In addition to the options described above for long-term Network Resource designations, the ICT will allow network customers to use the Redirect capabilities of OASIS to substitute an existing network resource reservation with a new network resource reservation. This functionality will enable network customers to designate a new network resource provided that the new resource does not create new transmission constraints or make existing constraints any worse. During the period in which the new network resource is designated, the existing network resource will be "un-designated," i.e., unavailable to serve as a firm network resource unless a new reservation is submitted. This functionality can only be used where an actual OASIS reservation exists for the existing network resource and only applies to short-term (i.e., less than a year) reservations.~~]

2.2]**For temporary terminations, Network Customers shall submit: (1) the effective date and time of redesignation, following the period of temporary termination; (2) information and attestation for redesignating the network resource following the temporary termination; and (3) identification of any related Transmission Service requests to be evaluated concomitantly with the request for temporary termination. The request for temporary termination of the resource and the requests for the related transmission service if any, should be evaluated as a single request, and approved or disapproved as such. When processing such requests, the evaluation of the Transmission Service requests identified in item (3) of this Section 2.2 will take into account the undesignation of the network resources identified in the request for termination. However, the evaluation of the Transmission Service requests in item (3) of**

this Section 2.2 will be processed taking proper account of all competing Transmission Service requests of higher priority.

[~~Balancing Authority~~]Control Area Designation Requirements

1. Generators connecting to the [~~Entergy~~]Transmission System have the following options available regarding [~~Balancing Authority area~~]**Control Area** election:

   1.1 Be included in the Entergy [~~Balancing Authority~~]**Control Area**.

   1.2 Be included in another existing [~~Balancing Authority~~]**Control Area** (i.e. TVA, LaGen, LEPA, CLECO).

   1.3 Create a new [~~Balancing Authority~~]**Control Area** that may be a generator-only [~~Balancing Authority~~]**Control Area** or a combination of generation and load.

2. Terms and Conditions

   2.1 When a generator is included in the Entergy [~~Balancing Authority~~]**Control Area** the following principles apply:

      2.1.1 The Generator Imbalance Service is provided by Entergy.

      2.1.2 The generator must use the (AFC) process to obtain transmission service in the short term (0 to 18 months).

      2.1.3 The facility must arrange for Transmission Service over[~~Entergy~~] Transmission System through the ICT.

      2.1.4 The ICT will perform NERC Reliability Coordinator functions.

   2.2 When a generator is included in another existing [~~Balancing Authority~~]**Control Area** the following principles apply:

      2.2.1 The Generator Imbalance Service shall be provided by another [~~Balancing Authority~~]**Control Area**.

      2.2.2 The facility must arrange for Transmission Service through the [~~Entergy~~]Transmission System through the ICT.

      2.2.3 The Reliability Coordinator for the host [~~Balancing Authority~~]**Control Area** provides NERC Reliability Coordinator functions for the facility.

2.3 When a generator creates a separate [~~Balancing Authority~~]**Control Area** the following principles apply:

2.3.1 The Generator Imbalance Service must be self provided or arranged through contract.

2.3.2 The facility must arrange for Transmission Service over the Entergy Transmission System through the ICT.

2.3.3 The facility must arrange for performance of NERC Reliability Coordinator functions.

3. [~~Balancing Authority~~]**Control Area** Designation/Election

3.1 Initial [~~Balancing Authority~~]**Control Area** Designation/Election. [~~Balancing Authority~~]**Control Area** designation/election for new generating facilities commencing operation for the first time, must be made a minimum of ninety (90) days in advance of initial synchronization to the transmission system. Initial [~~Balancing Authority~~]**Control Area** election and any subsequent change in [~~Balancing Authority~~]**Control Area** election must remain in effect for a minimum of twelve months.

3.2 Subsequent [~~Balancing Authority~~]**Control Area** Designation/Election. Requests to subsequently modify a [~~Balancing Authority~~]**Control Area** election must be submitted in writing to the Transmission Provider in compliance with the Notice section of the applicable Interconnection and Operating Agreement. The generator must provide one-line diagrams of the proposed change identifying metering points. The generator requesting a change in its[~~' Balancing Authority~~] **Control Area** is responsible for all costs associated with accommodating such request. Subsequent requests to change [~~Balancing Authority~~]**Control Area** must be submitted in writing to the Transmission Provider a minimum of ninety (90) days prior to the effective date. The Transmission Provider will provide notice to the ICT regarding [~~Balancing Authority~~]**Control Area** designations.

Creditworthiness Procedures

[~~1.~~]In accordance with revised Section 11 of [~~Entergy's OATT~~]**the Tariff**, draft copies of an acceptable Letter of Credit, Surety Bond and Continuing Guaranty are posted **on Entergy's OASIS**.[~~These copies can be downloaded from the following links:~~]

[~~1.1~~][~~Acceptable Letter of Credit~~]

[~~1.2~~][~~Surety Bond~~]

[~~2.~~][~~Guaranty~~]

[~~3.~~]A Transmission Customer that has been in business for at least one year and is not rated by S&P or Moody's may establish creditworthiness in accordance with [~~revised~~]Section [~~11.2(vi)~~]**11 of the Tariff** by submitting its most recent audited financial statements to Entergy for review. A description of the financial information required and Entergy's evaluation process can be viewed [~~from the following link:~~]**on** Entergy[~~Creditworthiness Evaluation~~]**'s OASIS**.

[~~4.~~]The Transmission Provider will be responsible for determining whether a Transmission Customer has met the requirements specified in Section 11 of [~~Entergy's OATT~~]**the Tariff**.

If you have any questions, please call the Entergy Transmission Policy group.

[~~S A M P L E~~]

[~~BANK LETTER HEAD~~]

[~~BENEFICIARY:~~ ~~APPLICANT:~~]
[~~Entergy Services, Inc., as agent for~~ ~~Name~~]
[~~P.O. Box 35803~~ ~~Address (Service Location)~~]
[~~Mail Unit L-WMO-400~~ ~~City, State, Zip~~]
[~~West Monroe, LA 71294-5803~~]

[~~RE: Unconditional and Irrevocable Standby Letter of Credit No. _____~~]

[~~Gentlemen:~~]

[~~We hereby establish our Unconditional and Irrevocable Standby Letter of Credit No. _____ in your favor for Entergy Services, Inc., as agent for Entergy Arkansas, Inc., Entergy Gulf States, Inc., Entergy Louisiana, LLC, Entergy Mississippi, Inc., and Entergy New Orleans, Inc., (Entergy Services, Inc., Entergy Arkansas, Inc., Entergy Gulf States, Inc., Entergy Louisiana, LLC, Entergy Mississippi, Inc., and Entergy New Orleans, Inc. are referred to herein collectively and singularly as "Entergy") for the account of the above Applicant available by your drafts on us payable at sight for any sum of money not to exceed a total of $_____ when accompanied by this Unconditional and Irrevocable Standby Letter of Credit and the following document:~~]

[•][~~Beneficiary's statement certifying that invoices to (Applicant's Name & Address) remain outstanding and unpaid 15 days or more after due date.~~]

[~~This Unconditional and Irrevocable Standby Letter of Credit shall be valid until _____, 20__ and shall thereafter be automatically renewed for successive ____ year periods upon the anniversary of its issue, unless at least 60 days prior to such anniversary date we notify you in writing by registered mail (return receipt requested) that we elect not to so renew this credit. Upon receipt by you of such notice, you may elect to draw hereunder up to the aggregate outstanding balance by your draft accompanied by this Unconditional and Irrevocable Standby Letter of Credit.~~]

[~~All drafts drawn under this credit must state: "Drawn under the (Bank's Name), Unconditional and Irrevocable Standby Letter of Credit No. _____ dated _____, 20__." The original Unconditional and Standby Letter of Credit must be presented with any drawing so that drawing can be endorsed on the reverse thereof.~~]

[~~Except so far as otherwise expressly stated, this Unconditional and Irrevocable Standby Letter of Credit is subject to the "International Standby Practices, International Chamber of Commerce Publication No. 590."~~]

[~~We hereby engage with bona fide holders, endorsers and drawers of such drafts drawn under and in compliance with the terms of this credit that such drafts will be duly honored upon due presentation and delivery of documents as specified to~~]

[~~(Bank's Name & Address) or (Correspondent's Bank's Name & Address).~~]

[~~Sincerely,~~]

[~~By: _____~~]

[~~Title: _____~~]

[

~~BANK LETTER OF CREDIT REQUIREMENTS CHECKLIST~~]

[~~==========~~
]

[~~To assist us in processing your Bank Letter of Credit in a timely manner, please ensure that the following requirements are addressed:~~]

[~~— Name on Entergy transmission agreement and Bank Letter of Credit matches exactly~~]
[~~— Bank Letter of Credit is completed for Entergy Services, Inc., as agent~~]
[~~— For an incorporated business, the name of the customer on the Bank Letter of~~]
[~~— Credit is the legal name of the business (not the "doing business as" designation)~~]
[~~— For an unincorporated business, the name of the customer on the Bank Letter of~~]
[~~— Credit is the name of the owner of the business (not the "doing business as" designation)~~]
[~~— Bank Letter of Credit is for a minimum of one year~~]
[~~— If the Bank Letter of Credit has an automatic renewal clause, the document states that Entergy will be given at least a sixty day advance notice in writing before any cancellation~~]
[~~— Bank Letter of Credit is signed by an authorized bank officer~~]
[~~— Original Letter of Credit should be mailed to:~~]

[~~Mailing Address —~~]	[~~Physical Address (For Overnight Mail)~~]	[~~Phone Numbers to West Monroe, LA Office~~]
[~~PO Box 35803~~]	[~~2901 Cypress Street~~]	[~~Primary - 318-329-5383~~]
[~~Mail Unit L-WMO-400~~]	[~~Mail Unit L-WMO-400~~]	[~~Alternate - 318-329-5402~~]
[~~West Monroe, LA 71294-5803~~]	[~~West Monroe, LA 71291~~]	[~~Alternate - 318-329-5375~~]
		[~~Fax - 318-329-5463~~]

[~~Note:~~ ~~Personal letters of guaranty, guaranty letters from banks, certificates of deposit, and letters of credit from credit unions or savings & loans~~ **~~will not~~** ~~be accepted.)~~]

[~~For assistance with any questions regarding these requirements, please call the direct to West Monroe, LA or email to CREDIT@entergy.com for assistance.~~]

[~~Thank you.~~

[SURETY BOND]

[Know All Men By These Presents**:**]

[That We _____, as PRINCIPAL, and _____.]
[as SURETIES, acknowledge ourselves to be indebted and firmly bound unto Entergy Services, Inc., as agent for Entergy Arkansas, Inc., Entergy Gulf States, Inc., Entergy Louisiana, Inc., Entergy Mississippi, Inc., and Entergy New Orleans, Inc., (Entergy Services, Inc., Entergy Arkansas, Inc., Entergy Gulf States, Inc., Entergy Louisiana, LLC, Entergy Mississippi, Inc., and Entergy New Orleans, Inc. are referred to herein collectively and singularly as "Entergy") in the sum of _____**]**
[(**$**) for the payment whereof we bind ourselves, our heirs, executors, administrators, and assigns, jointly and severally by these presents.]

[Whereas, the said PRINCIPAL has entered into a contract with Entergy Services, Inc. to take from it transmission service and to pay promptly there for the bills presented by said Entergy Services, Inc. in accordance with Entergy's Open Access Transmission Tariff (OATT) and to abide by said rules and regulations in other respects therein set forth.]

[Now, therefore, if said PRINCIPAL performs obligations in said contract dated]
[_____, and any renewals or extensions of same and shall pay all bills for such service promptly when due, then this obligation shall be void; otherwise, to remain in full force and effect.]

[The SURETY may cancel this bond at any time by filing, at Entergy Services, Inc., Attention: Collection Department, P.O. Box 35803, Mail Unit L-WMO-400, West Monroe, LA 71294-5803, one hundred twenty (120) days written notice of its desire to be relieved of liability. The Surety shall not be discharged from any liability already accrued under this bond, or which shall accrue hereunder before the expiration of the one hundred twenty day period.]

[~~In Witness Hereof the parties have hereunto signed this bond, this the____ day of _____, 20___.~~]

[~~(PRINCIPAL)~~ ~~(SURETIES)~~]

[~~By:~~ _____

~~By:~~ _____]

[~~Title:~~ _____]

[~~Title:~~ _____]

[~~INSURANCE COMPANY SURETY BOND REQUIREMENTS CHECKLIST~~]

[~~==========~~
]

[~~To assist us in processing your Insurance Company Surety Bond in a timely manner, please ensure that the following requirements are addressed:~~]

[~~Surety Bond is issued by a company with an "A" rating by A.M. Best's~~]
[~~Surety Bond is completed for Entergy Services, Inc.~~]
[~~The name of the customer on the surety bond is the legal name of the business as it appears on the Transmission Service Agreement~~]
[~~Surety Bond has a bond number issued by insurance company~~]
[~~Surety Bond is signed by principal~~]
[~~Power of Attorney is attached to original surety bond~~]
[~~Surety Bond has an insurance company seal~~]
[~~Surety Bonds are for a minimum of $2,000~~]
[~~The completed **original** Surety Bond should be mailed to :~~]

[~~Mailing Address~~]	[~~Physical Address (For Overnight Mail)~~]	[~~Phone Numbers to West Monroe, LA Office~~]
[~~PO Box 35803~~]	[~~2901 Cypress Street~~]	[~~Primary - 318-329-5383~~]
[~~Mail Unit L-WMO-400~~]	[~~Mail Unit L-WMO-400~~]	[~~Alternate - 318-329-5402~~]
[~~West Monroe, LA~~	[~~West Monroe, LA~~	[~~Alternate - 318-329-5375~~]

~~71294-5803~~]	~~71291~~]	
		[~~Fax - 318-329-5463~~]

[~~For assistance with any questions regarding these requirements, please call the direct to West Monroe, LA or email to CREDIT@entergy.com for assistance.~~]

[~~Thank you.~~]

[~~GUARANTY~~]

[~~This Guaranty (this "Guaranty"), dated effective as of _____, 200__ (the "Effective Date"), is made and entered into by _____ ("Guarantor") for the benefit of Entergy Services, Inc., Entergy Arkansas, Inc., Entergy Gulf States, Inc., Entergy Louisiana, LLC, Entergy Mississippi, Inc., and Entergy New Orleans, Inc. (collectively, "Entergy").~~]

[~~W I T N E S S E T H:~~]

[~~WHEREAS, _____ ("Customer"), a _____ organized under the laws of the State of _____ owned or controlled, directly or indirectly, by Guarantor, has applied to Entergy for transmission and/or related services (the "Services") pursuant to Entergy's Open Access Transmission Tariff (the "Tariff").~~]

[~~WHEREAS, pursuant to the Tariff, Entergy requires financial assurances of Customer's ability to meet its responsibilities and obligations under the Tariff.~~]

[~~WHEREAS, Guarantor will benefit from Entergy's provision of Services to Customer and is willing to provide such financial assurance.~~]

[~~NOW THEREFORE, in consideration of the benefit to be obtained by Guarantor from Entergy providing Services to Customer, Guarantor hereby covenants and agrees as follows:~~]

[~~1. GUARANTY. Subject to the provisions hereof, Guarantor hereby irrevocably and unconditionally guarantees to Entergy, its successors and assigns, the timely and full payment when due of the obligations of Customer to Entergy in connection with Services including, without limitation, all reasonable attorney's fees and costs incurred by Entergy in connection with efforts to collect payments from Customer (collectively, the "Obligations"). This Guaranty shall constitute a guarantee of payment and not of collection. Should any payment by Customer in respect of any Obligation be rescinded, revoked, or recovered from~~

~~Entergy as a preference or fraudulent conveyance, whether pursuant to Chapter 5 of the U.S. Bankruptcy Code or any similar state law, the Guarantor shall remain liable hereunder in respect of such Obligation as though such payment had not been made. The liability of Guarantor under this Guaranty shall be subject to the following:~~]

[~~(a) Guarantor's liability hereunder shall be and is specifically limited to payments required to be made under the Tariff, any related agreements (even if such payments are deemed to be damages), and any laws or regulations regarding recovery of attorney's fees and costs incurred in connection with efforts to collect payments required to be made under the Tariff or any related agreements, and, except to the extent specifically provided in the Tariff or any related agreements, in no event shall Guarantor be subject hereunder to consequential, exemplary, equitable, loss of profits, punitive, tort, or any other damages or costs. If and to the extent that any of the Obligations, or any part thereof, is deemed to constitute liquidated damages, the Guarantor acknowledges and agrees that damages are difficult or impossible to determine and that liquidated damages constitutes a reasonable approximation of the amount of such damages and not a penalty.~~]

[~~(b) The aggregate amount covered by this Guaranty shall not exceed U.S. $_____.~~]

[~~2. DEMANDS AND NOTICE. Should Customer fail or refuse to pay any Obligations for whatever reason, including without limitation the insolvency or filing of a petition under the United States Bankruptcy Code by or against Customer, and should Entergy elect to exercise its rights under this Guaranty, Entergy shall make a demand upon Guarantor (hereinafter referred to as a "Payment Demand"). A Payment Demand shall be in writing and shall reasonably and briefly specify in what manner and what amount Customer has failed to pay and an explanation of why such payment is due, with a specific statement that Entergy is calling upon Guarantor to pay under this Guaranty. A Payment Demand satisfying the foregoing requirements shall be required with respect to Obligations before Guarantor is required to pay such Obligations hereunder and shall be deemed sufficient notice to Guarantor that it must pay the Obligations within five (5) Business Days after its receipt of the Payment Demand. A single written Payment Demand shall be effective as to any specific default during the continuance of such default, until Customer or Guarantor has cured such default, and additional written demands concerning such default shall not be required until such default is cured. As used herein, the term "Business Day" shall mean a day on which commercial banks or financial institutions are open for business in New York, New York.~~]

[~~3. REPRESENTATIONS AND WARRANTIES. Guarantor represents and warrants that:~~]

[~~(a) it is a _____ duly organized and validly existing under the laws of the State of _____ and has the power and authority to execute, deliver and carry out the terms and provisions of the Guaranty;~~]

[~~(b) the execution, delivery, and performance of the Guaranty have been and remain duly authorized by all necessary corporate action and do not contravene any provision of law or of the Guarantor's constitutional documents or any contractual restriction binding on the Guarantor or its assets;~~]

[~~(c) no authorization, approval, consent or order of, or registration or filing with, person or any court or other governmental body having jurisdiction over Guarantor is required on the part of Guarantor for the execution and delivery of this Guaranty, except those which have been duly obtained or made;~~]

[~~(d) this Guaranty, when executed and delivered, will constitute a valid and legally binding agreement of Guarantor, except as the enforceability of this Guaranty may be limited by the effect of any applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally and by general principles of equity; and~~]

[~~(e) it will directly or indirectly benefit from the Services provided by Entergy to Customer.~~]

[~~4. SETOFFS AND COUNTERCLAIMS. Without limiting Guarantor's own defenses and rights hereunder, Guarantor reserves to itself all rights, setoffs, counterclaims and other defenses to which Customer or any other affiliate of Guarantor is or may be entitled to, except for defenses arising out of the bankruptcy, insolvency, dissolution or liquidation of Customer.~~]

[~~5. AMENDMENT OF GUARANTY. No term or provision of this Guaranty shall be amended, modified, altered, waived or supplemented except in a writing signed by Guarantor and Entergy.~~]

[~~6. WAIVERS. Except as required in Section 2 above, Guarantor hereby waives (a) notice of acceptance of this Guaranty; (b) presentment and demand concerning the liabilities of Guarantor; and (c) any right to require that any action or proceeding be brought against Customer or any other person, or to require that Entergy seek enforcement of any performance against Customer or any other person, prior to any action against Guarantor under the terms hereof.~~]

[~~Except as to applicable statutes of limitation, no delay of Entergy in the exercise of, or failure to exercise, any rights hereunder shall operate as a waiver of such rights, a waiver of any other rights or a release of Guarantor from any obligations hereunder.~~]

[~~Guarantor consents to the renewal, compromise, extension, acceleration or other changes in the time of payment of or other changes in the terms of the Obligations, or any part thereof or any changes or modifications to the terms of the Tariff or any related agreements.~~]

[~~Guarantor may terminate this Guaranty by providing written notice of such termination to Entergy and upon the effectiveness of such termination, Guarantor shall have no further liability hereunder, except as provided in the last sentence of this paragraph. No such termination shall be effective until sixty (60) days after receipt by Entergy of such termination notice. No such termination shall affect Guarantor's liability with respect to any transaction entered into between Customer and Entergy prior to the time the termination is effective, which transaction shall remain guaranteed pursuant to the terms of this Guaranty.~~]

[~~Each of the Entergy companies identified in the preamble to this Guaranty shall have the right to enforce its interest in this Guaranty without the joinder of other Entergy companies.~~]

[~~7. NOTICE. Any Payment Demand, notice, request, instruction, correspondence or other document to be given hereunder by any party to another (herein collectively called "Notice") shall be in writing and delivered personally or mailed by certified mail, postage prepaid and return receipt requested, or by telegram or telecopier, as follows:~~]

[~~To Entergy:~~]	[~~Entergy Services, Inc.~~] [~~639 Loyola Avenue~~] [~~Mail Unit: L-ENT-4C~~] [~~New Orleans, LA 70113~~]	[~~To Guarantor:~~]	[~~_____~~] [~~_____~~] [~~_____~~] [~~_____~~]
	[~~Attn.: Manager, Transmission Services~~]		[~~Attn.: _____~~]
	[~~Fax No.: (504) 576-5123~~]		[~~Fax No.: _____~~]

[~~Notice given by personal delivery or mail shall be effective upon actual receipt. Notice given by telegram or telecopier shall be effective upon actual receipt if received during the recipient's normal business hours, or at the beginning of the recipient's next business day after receipt if not received during~~

~~the recipient's normal business hours. All Notices by telegram or telecopier shall be confirmed promptly after transmission in writing by certified mail or personal delivery. Any party may change any address to which Notice is to be given to it by giving notice as provided above of such change of address.~~]

[~~8. EXPENSES OF ENFORCEMENT. The Guarantor agrees to pay on demand all reasonable out-of-pocket expenses (including the reasonable fees and expenses of Entergy's attorneys) in any way relating to the enforcement or protection of the rights of Entergy hereunder; provided, however, that the Guarantor shall not be liable for any expenses of Entergy if no payment under this Guaranty is due.~~]

[~~9. MISCELLANEOUS. This Guaranty shall in all respects be governed by, and construed in accordance with, the law of the State of New York, without regard to principles of conflicts of laws (other than Section 5-1401 of the New York General Obligations Law). Guarantor submits to the non-exclusive jurisdiction and venue of the state and federal courts located in New Orleans, Orleans Parish, Louisiana for any litigation relating to this Guaranty, and Guarantor and Entergy (by accepting this Guaranty) waive any right either of them may otherwise have to have any issues relating to this Guaranty or any Obligations determined by a jury. This Guaranty shall be binding upon Guarantor, its successors and assigns and inure to the benefit of and be enforceable by Entergy, its successors and assigns. This Guaranty may not be assigned without Entergy's prior written consent; any purported assignment made in violation of this restriction shall be null and void. This Guaranty embodies the entire agreement and understanding between Guarantor and Entergy and supersedes all prior agreements and understandings relating to the subject matter hereof. The headings in this Guaranty are for purposes of reference only, and shall not affect the meaning hereof.~~]

[~~IN WITNESS WHEREOF, the Guarantor has executed this Guaranty on _____, 200_, but it is effective as of the Effective Date.~~]

[~~_____~~]
[~~_____ *(insert Guarantor's full legal name)*~~]

[~~By: _____~~]
[~~Name: _____~~]

Issued by: [~~Randal~~] **Randall** Helmick, Vice President, Transmission

Effective: [~~November 17, 2006~~]**July 13, 2007**

Issued on:[~~ May 18, 2007~~ **July 13, 2007** ~~Filed to comply with order of the Fed. Energy Reg. Comm'n, Docket No. ER05-1065-004, issued April 4, 2007.~~]

[~~Title: _____~~
~~_____~~]

[~~Creditworthiness Evaluation of~~]
[~~Unrated Transmission Customers~~]

[~~1. ~~][~~Purpose. These procedures describe the creditworthiness evaluation, under Section 11.(2)(vi) of Entergy's OATT, of Transmission Customers that are not rated by either Standard and Poor's ("S&P") or Moody's Investor Services, Inc. ("Moody's"). The Transmission Provider will be responsible for determining whether a Transmission Customer has met the requirements specified in Section 11 of Entergy's OATT.~~]

[~~2. ~~][~~Evaluation Process~~]

[~~2.1 ~~][~~Transmission Customers that do not have Standard and Poor's ("S&P") or Moody's Investor Services, Inc. ("Moody's") Long-Term Issuer Credit Ratings can establish creditworthiness if they have been in business at least one year and provide audited financial statements that demonstrate that they meet the standards that are at least equivalent to the standards underlying a S&P Long-term Issuer Credit Rating of BBB- (or better) or Moody's Long-term Issuer Credit Rating of Baa3 (or better).~~]

[~~2.1.1 ~~][~~Such financial statements should include the Transmission Customer's business start date, present ownership, line of business, as well as overall credit ratings, financial stress or credit score assigned by public sources. ~~]

[~~2.1.2 ~~][~~A Transmission Customer must also provide *sworn* financial information sufficient to allow Entergy to evaluate, among other things, the customer's Liquidity, Profitability, Leverage, and Cash Flow measures from year-to-year and for comparison to other companies in the same industry.~~]

[~~2.2 ~~][~~In conducting its credit review, Entergy may consider a Transmission Customer's reported trade experiences, including the average high and highest trade reference, compared to the industry average. Entergy may also review the public record for reported suits, liens, judgments and UCC filings, and in order to determine if~~

~~the Transmission Customer is operating under any chapter of the bankruptcy laws and/or is subject to liquidation or debt reduction procedures under state laws.~~]

[~~2.3 ~~][~~If the Transmission Customer is found not to be creditworthy pursuant to Section 11.2(vi) of Entergy's OATT, Entergy will provide the Transmission Customer a written explanation of such determination.~~]

[

~~**Prepayment of Service**~~]

[~~Effective Date: For OASIS reservations with a start of service date on or after June 1, 2004.~~]

[~~3.~~][~~Purpose. This Business Practice describes the implementation of the prepayment provisions for new and existing transmission customers under Section 11.3 of Entergy's OATT.~~]

[~~4.~~][~~General Requirements~~]

[~~4.1~~][~~The Customer must provide at least 30 days notice of its election of prepayment status. The election must be made on a calendar month basis. Upon election of prepayment status, the Customer must immediately provide to Entergy Services Transmission Services group a phone number, a fax number, a primary contact name, and an email address in order to facilitate the necessary rapid exchange of invoice data and remittance of funds. Any outstanding transmission service charges, including charges for the current month's service, will be invoiced at the end of the current month pursuant to the normal transmission service customer billing cycle. These charges **must** be paid by the due date, which will be the earlier of the normally calculated due date or five (5) Business Days prior to the beginning of the next month.~~]

[~~4.2~~][~~This prepayment process assumes a valid OASIS request is one that has been approved by the ~~][~~ICT~~][~~ and confirmed by the Prepayment Transmission Customer (PPTC). ~~]

[~~4.3~~][~~By virtue of the inherent nature of Daily Non-firm and Hourly Non-firm service, Entergy is unable to accommodate these types of service under the FERC approved prepayment provisions.~~]

[~~5.~~][~~Invoices and Payments~~]

[~~5.1~~][~~On each Business Day, the Transmission Provider will identify all confirmed reservations from PPTCs through the end of the prior calendar day, generate invoices, and transmit the invoices to the PPTC by fax and/or email. A separate invoice will be generated for each confirmed OASIS reservation. A Business Day is defined as one which is recognized by the Federal Reserve Bank as an operational day and excludes weekends and holidays as defined by the Federal Reserve Bank.~~]

[~~5.2~~][~~For reservations of one month or less, the invoice due date for prepaid transmission service will be two (2) business days following the date of the invoice and no later than five (5) business days prior to the start of service for that reservation (i.e., the earlier of two (2) business days following the date of the invoice or five (5) business days prior to the start of service for that reservation).~~]

[~~5.3~~][~~For reservations of more than one month, the invoice due date for the initial month of prepaid transmission service will be two (2) business days following the date of the invoice and no later than five (5) business days prior to the start of service for that reservation (i.e., the earlier of two (2) business days following the date of the invoice or five (5) business days prior to the start of service for that reservation). For subsequent months, the invoice due date will be five (5) business days prior to the beginning of each month.~~]

[~~5.4~~][~~Table 1 shows a sample timeline of invoice dates and invoice due dates for service.~~]

[~~5.5~~][~~If the prepayment is not received by the invoice due date, the reservation will be annulled. In order to assure accurate and timely recognition of payments by Entergy, the Entergy invoice number must be referenced on the payment.~~]

[~~5.6~~][~~Payments made after the reservation has been annulled will be refunded. No interest will be included with refunds of payments made after the due date.~~]

[~~5.7~~][~~Prepayment invoices will reflect an estimated charge for Ancillary Services Schedules 1 and 2. Variance between the estimate and actual charges (including any applicable price cap credits, TLR credits, penalties, and interest) will be reconciled at the end of the month during the non-prepayment Point-to-Point transmission service customer billing cycle.~~]

[~~5.8~~][~~Interest on prepayments will be calculated based on 18 C.F.R. § 35.19a(a)(2)(iii) from the date payment is received until the earlier of the end date of the reservation or the end of the month. Interest due to the PPTC will be calculated at the end of the month during the non-prepayment Point-to-Point transmission service customer billing cycle.~~]

[~~Table 1~~]

[~~Following is a time line showing the invoice date (Inv Dt) and invoice due dates (Inv Due Dt) for reservations confirmed on each day from May 17th, 2004 through May 23rd, 2004 all with a start-of-service (SOS) date of June 1, 2004~~]

	[~~17-May~~]	[~~18-May~~]	[~~19-May~~]	[~~20-May~~]	[~~21-May~~]	[~~22-May~~]	[~~23-May~~]	[~~24-May~~]	[~~25-May~~]	[~~26-May~~]	[~~27-May~~]	[~~28-May~~]	[~~29-May~~]	[~~30-May~~]	[~~31-May~~]	[~~01-Jun~~]
	[~~Mon~~]	[~~Tue~~]	[~~Wed~~]	[~~Thur~~]	[~~Fri~~]	[~~Sat~~]	[~~Sun~~]	[~~Mon~~[1]]	[~~Tue~~]	[~~Wed~~]	[~~Thur~~]	[~~Fri~~]	[~~Sat~~]	[~~Sun~~]	[~~Mon~~]	[~~Tue~~]
	[~~BD~~]	[~~BD~~]	[~~BD~~]	[~~BD~~]	[~~BD~~]	[~~NBD~~]	[~~NBD~~]	[~~BD~~]	[~~BD~~]	[~~BD~~]	[~~BD~~]	[~~BD~~]	[~~NBD~~]	[~~NBD~~]	[~~Holiday~~]	[~~BD~~]
[~~Ex 1~~]	[~~Confirm~~]	[~~Inv Dt~~]		[~~Inv Due Dt~~]												[~~SOS~~]
[~~Ex 2~~]		[~~Confirm~~]	[~~Inv Dt~~]		[~~Inv Due Dt~~]											[~~SOS~~]
[~~Ex 3~~]			[~~Confirm~~]	[~~Inv Dt~~]				[~~Inv Due Dt~~]								[~~SOS~~]
[~~Ex 4~~]				[~~Confirm~~]	[~~Inv Dt~~]			[~~Inv Due Dt~~]								[~~SOS~~]
[~~Ex 5~~]					[~~Confirm~~]			[~~Inv Dt & Due Dt~~]								[~~SOS~~]
[~~Ex 6~~]						[~~Confirm~~]		[~~Inv Dt & Due Dt~~]								[~~SOS~~]
[~~Ex 7~~]							[~~Confirm~~]	[~~Inv Dt & Due Dt~~]								[~~SOS~~]

[~~1~~ ~~Note that Monday, May 24, 2004 is the fifth Business Day prior to SOS for OASIS reservations with SOS = June 1, 2004. Note also in this example, Sunday, May 23, 2004 is the final calendar day on which the PPTC may confirm an OASIS request with SOS = June 1, 2004.~~]

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[~~Legend: BD = Bus Day, NBD = Non Bus Day, SOS = Start of Service~~]

[~~Suspension of Service~~]

[~~1. ~~][~~In accordance with Section 11.4 of Entergy's Open Access Transmission Tariff (Tariff), the Transmission Provider may suspend transmission service if the Transmission Customer fails to provide the financial assurance required under Section 11.3.3 or 11.3.4.~~]

[~~2. ~~][~~The Transmission Customer will be notified in accordance with Section 11.3.5 of its obligation to provide financial assurance and the required deadline to provide this financial assurance. If the Transmission Customer fails to meet these noticed deadlines, the Transmission Provider will notify the ICT and will implement any such suspension. ~~]

[~~3. ~~][~~Suspension of service means all confirmed reservations will be Recalled. All new reservations submitted by a suspended customer will be rejected until its financial assurance requirements are satisfied.~~]

[~~4. ~~][~~The Transmission Provider will manage suspension of service on a weekly basis to allow the suspended capacity to be returned to the market. This means that if service is suspended on or after Monday of the week, the reservation will not be restored until the next Monday following the time the Transmission Customer's financial assurance requirements are satisfied. ~~]

[~~4.1 ~~][~~Reservations for one week or less will be Recalled upon suspension of service and returned to the market~~]

[~~4.2 ~~][~~Reservations of more than one week will be Recalled for the balance of the current week and on a weekly basis thereafter until the Customer provides the required financial assurance.~~]

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[~~5. ~~][~~The Transmission Provider will not restore the capacity to the Customer within the week of suspension. The Customer must make a new OASIS request after providing the required financial assurance if service is desired during the week of suspension. The ICT will approve the new request only if capacity is available. ~~]

[~~6. ~~][~~The Transmission Customer will not be billed for transmission service that has been suspended for failure to provide the required financial assurance.~~]