

ATTACHMENT FF

TRANSMISSION EXPANSION PLANNING PROTOCOL

I. Transmission Expansion Plan - Purpose and Scope: This Attachment FF describes the process to be used by the Transmission Provider to develop the Midwest ISO Transmission Expansion Plan (“MTEP”), subject to review and approval by the Transmission Provider Board. The provisions of this Attachment FF are consistent with the applicable provisions of Appendix B of the ISO Agreement and this Tariff. For purposes of this Attachment FF, all references to Transmission Owner(s) will include an ITC(s).

A. Development of the MTEP: The Transmission Provider, working in collaboration with representatives of the Transmission Owners and the Planning Advisory Committee, shall develop the MTEP, consistent with Good Utility Practice and taking into consideration long-range planning horizons, as appropriate. The Transmission Provider shall develop the MTEP for expected use patterns and analyze the performance of the Transmission System in meeting both reliability needs and the needs of the competitive bulk power market, under a wide variety of contingency conditions. The MTEP will give full consideration to the needs of all Market Participants, will include consideration of demand-side options, and will identify expansions or enhancements needed to support competition in bulk power markets and in maintaining reliability. This analysis and planning process shall integrate into the development of the MTEP among other things:

(i) the transmission needs identified from Facilities Studies carried out in connection with specific transmission service requests; (ii) transmission needs associated with generator interconnection service; (iii) the transmission needs identified by the Transmission Owners in connection with their planning analyses to provide reliable power supply to their connected load customers and to expand trading opportunities, better integrate the grid and alleviate congestion; (iv) the transmission planning obligations of a Transmission Owner, imposed by federal or state law(s) or regulatory authorities, which can no longer be performed solely by the Transmission Owner following transfer of functional control of its transmission facilities to the Transmission Provider; (v) plans and analyses developed by the Transmission Provider to provide for a reliable Transmission System and to expand trading opportunities, better integrate the grid and alleviate congestion; (vi) the inputs provided by the Planning Advisory Committee; and (vii) the inputs, if any, provided by the state regulatory authorities having jurisdiction over any of the Transmission Owners and by the OMS.

B. Project Coordination: In the course of this process, the Transmission Provider shall seek out opportunities to coordinate or consolidate, where possible, individually defined transmission projects into more comprehensive cost-effective developments subject to the limitations imposed by prior commitments and lead-time constraints. The Transmission Provider shall coordinate with Transmission Owners to develop expansion

plans to meet the needs of their respective systems. This multi-party collaborative process will allow for all projects with regional and inter-regional impact to be analyzed for their combined effects on the Transmission System. Moreover, this collaborative process is designed to ensure the most efficient and cost-effective MTEP that will meet reliability needs and expand trading opportunities, in addition to better integrating the grid, and alleviating congestion, while giving consideration to the inputs from all stakeholders.

C. Joint Regional Planning Coordination: The Transmission Provider shall also collaborate with representatives from adjacent regional transmission organizations and transmission providers to develop long-term inter-regional plans for the benefit of the combined regions, as and to the extent provided for in joint agreements between the Transmission Provider and other transmission providers.

II. Development Process for MTEP Projects: The Transmission Provider will develop the MTEP biennially or more frequently. The MTEP will identify expansion projects for inclusion in the MTEP according to the factors set forth in Appendix B of the ISO Agreement and Section I.A. of this Attachment FF. For purposes of assigning cost responsibility, expansion projects in the MTEP shall be categorized pursuant to the following criteria.

A. Reliability Needs: Reliability projects are identified either in the periodically performed Baseline Reliability Study, or in Facilities Studies associated with the request processes for new transmission access. Transmission access includes requests for both new transmission delivery service and new generation interconnection service.

1. Baseline Reliability Projects: Baseline Reliability Projects are Network Upgrades identified in the base case as required to ensure that the Transmission System is in compliance with applicable national Electric Reliability Organization (“ERO”) reliability standards and reliability standards adopted by Regional Reliability Organizations and applicable to the Transmission Provider. Baseline Reliability Projects include projects that are needed to maintain reliability while accommodating the ongoing needs of existing Market Participants and Transmission Customers. Baseline Reliability Projects may consist of a number of individual facilities that in the judgment of the Transmission Provider constitute a single project for cost allocation purposes. The Transmission Provider shall collaborate with Transmission Owning members and with other transmission providers to develop appropriate planning models that reflect expected system conditions for the planning horizon. The planning models shall reflect the projected load growth of existing network customers and other transmission service and interconnection commitments, and shall include any transmission projects identified in Service Agreements or interconnection agreements that are entered into in association with requests for transmission delivery service or transmission interconnection service, as determined in

Facilities Studies associated with such requests. The Transmission Provider shall test the MTEP for adequacy and security based on commonly applicable national Electric Reliability Organization (“ERO”) standards, and under likely and possible dispatch patterns of actual and projected Generation Resources within the Transmission System and of external resources, and shall produce an efficient expansion plan that includes all Baseline Reliability Projects determined by the Transmission Provider to be necessary through the planning horizon of the MTEP. The Transmission Provider shall obtain the approval of the Transmission Provider Board, as set forth in Section VI, for each MTEP published.

2. New Transmission Access Projects: New Transmission Access Projects are defined for the purposes of Attachment FF as Network Upgrades identified in Facilities Studies and agreements pursuant to requests for transmission delivery service or transmission interconnection service under the Tariff. New Transmission Access Projects include projects that are needed to maintain reliability while accommodating the incremental needs associated with requests for new transmission or interconnection service, as determined in Facilities Studies associated with such requests. New Transmission Access Projects may consist of a number of individual facilities, which in the judgment of the Transmission Provider constitute a single project for cost allocation purposes. New Transmission Access Projects are either Generation Interconnection Projects

or Transmission Delivery Service Projects as defined in Sections II.A.2.a. and II.A.2.b. The Transmission Provider shall consider the Baseline Reliability Projects already determined to be needed in the most current MTEP, as well as any other base-case needs not associated with the request for new service that may be identified during the impact study process when determining the need for New Transmission Access Projects. Any identified base-case needs determined in the impact study process that are not a part of the Baseline Reliability Projects already identified in the most current MTEP shall become new Baseline Reliability Projects and shall be included in the next MTEP. New Transmission Access Projects identified in Facilities Studies and agreements pursuant to requests for transmission delivery service or transmission interconnection service under this Tariff shall be included in the next MTEP.

a. Generation Interconnection Projects: Generation Interconnection Projects are New Transmission Access Projects that are associated with interconnection of new, or increase in generating capacity of existing, generation under Attachments X and R to this Tariff.

b. Transmission Delivery Service Projects: Transmission Delivery Service Projects are New Transmission Access Projects that are needed to provide for requests for new Point-To-Point Transmission Service, or requests under Module B of the Tariff for Network Service or a new designation of a Network Resource(s).

B. Regionally Beneficial Projects: Regionally Beneficial Projects are Network Upgrades: (i) that are proposed by the Transmission Provider, Transmission Owner(s), ITC(s), Market Participant(s), or regulatory authorities; (ii) that are found to be eligible for inclusion in the MTEP or are approved pursuant to Appendix B, Section VII of the ISO Agreement after June 16, 2005, applying the factors set forth in Section I.A. of this Attachment FF; (iii) that have a Project Cost of \$5 million or more; (iv) that involve facilities with voltages of 345 kV or higher¹; and that may include any lower voltage facilities of 100kV or above that collectively constitute less than fifty percent (50%) of the combined project cost, and without which the 345 kV or higher facilities could not deliver sufficient benefit to meet the required benefit-to-cost ratio threshold for the project as established in Section II.B.1.c, or that otherwise are needed to relieve applicable reliability criteria violations that are projected to occur as a direct result of the development of the 345 kV or higher facilities of the project; (v) that are not determined to be Baseline Reliability Projects or New Transmission Access Projects; or are determined to be a Regionally Beneficial Project under Section III.A.2.g; and (vi) that are found to have regional benefits under the criteria set forth in Section II.B.1. of this Attachment FF.

¹ Transformer voltage is defined by the voltage of the low-side of the transformer for these purposes.

1. Criteria to Determine Whether a Project Should be Included as a Regionally Beneficial Project: The Transmission Provider shall employ multiple metrics and a multi-year analysis including sensitivity analyses guided by input from the Planning Advisory Committee to evaluate the anticipated benefits of a potential Regionally Beneficial Project in order to determine if such a project **meets the criteria for inclusion in the regional plan as a Regionally Beneficial Project** eligible for regional cost sharing. **Sensitivity analyses shall include, among other factors, consideration of: (i) variations in amount, type, and location of future generation supplies as dictated by future scenarios developed with stakeholder input and guidance; (ii) alternative transmission proposals; (iii) impacts of variations in load growth; and (iv) effects of demand response resources on transmission benefits.** The Transmission Provider shall perform this inclusion analysis as follows:

- a. The Transmission Provider shall utilize a Weighted Gain, No Loss (“WGNL”) metric to analyze the anticipated annual economic benefits of construction of a proposed Regionally Beneficial Project to Transmission Customers in each of three Planning Sub Regions as reflected in Attachment FF-3, based upon: (1) Adjusted Production Cost methodology (adjusted to account for purchases and sales) (“APC”); and (2) Load Locational Marginal Pricing (“Load LMP”). The Load LMP benefit for each Planning Sub Region shall be calculated by multiplying the LMP at each modeled load bus in the Planning Sub Region by the Load at the bus, for each period of planning model simulation (Load LMP * Load). The WGNL metric for each Planning Sub Region shall be developed by weighting the APC benefit and the Load LMP benefit by adding seventy percent (70%) times the APC for each Planning Sub Region plus thirty percent (30%) times the Load LMP benefit for each Planning Sub Region.

$$\text{WGNL} = (70\% \text{ APC} + 30\% \text{ Load LMP})$$

The WGNL metric shall be calculated for each Planning Sub Region for each year of evaluation. Project benefit evaluations will consider, at a minimum, benefits for the first ten years of project life after the projected in-service year, with a maximum planning horizon of 20 years from the current year. The annual benefit for a Regionally Beneficial Project shall be determined as the sum of the WGNL values for each Planning Sub Region. The total project benefit shall be determined by calculating the present value of annual benefits for the multi-year evaluations.

- b. The present value of the annual benefits of the Regionally Beneficial Project (weighted present value sum of the APC benefit and of the Load LMP benefit) must be greater than zero for a project to qualify as a Regionally Beneficial Project and therefore eligible for regional cost allocation, subject to the additional qualification requirements of this Section II.B.

- c. The Transmission Provider shall employ a threshold test to evaluate the relative benefits/costs for a potential Regionally Beneficial Project. Only costs for a project that meet the benefits/costs ratio threshold shall be included in the MTEP as a Regionally Beneficial Project and be eligible for regional cost sharing. The costs applied in the benefits/costs ratio shall be the present value, over the same period for which the project benefits are determined, of the annualized revenue requirements for the project as determined from the actual installed cost of the project upon completion and the levelized fixed charge rate applicable to the constructing Transmission Owner(s). The Transmission Provider will, in its sole judgment, determine the installed cost to be applied in the benefits/costs ratio based on the reasonableness of actual installed project costs reported by the constructing Transmission Owner taking into consideration comparative costs for similar facilities across the region, reasonable variations for local circumstances, among other factors.

The benefits of the project and the cost allocations as a percentage of project cost shall be determined one time at the time that the project is presented to the Transmission Provider Board for approval. Estimated project installed costs will be used to estimate the benefits/costs ratio and the eligibility for cost sharing at the time of project approval. Final determination of the benefits/costs ratio and therefore the eligibility for cost sharing will be based on the actual installed cost of the project when completed. To the extent that the Commission approves the collection of costs in rates for Construction Work in Progress (“CWIP”) for a constructing Transmission Owner, costs will be allocated and collected prior to completion of the project. In the event that the actual installed cost of the project is such that the threshold benefit/cost ratio is below the threshold to establish a Regionally Beneficial Project, the Transmission Provider will reimburse for charges made to Transmission Customers taking service outside of the pricing zone of the constructing Transmission Owner. The benefit/costs ratio threshold shall be based on the planned in-service date of the project, such that a project with an in-service date within one year of the approved MTEP initially recommending the project shall have a minimum benefit/costs threshold of at least 1.2:1.

The minimum benefit/costs ratio threshold shall increase linearly with the time until planned in-service date such that the benefit/costs for a project planned for service within two (2) years shall be 1.4:1; within three(3) years shall be 1.6:1; within four (4) years shall be 1.8:1; within five (5) years shall be 2.0:1; and continuing in this manner such that a project with a planned in-service date ten (10) years from the approved MTEP initially approving the project will apply a minimum benefit/costs threshold of 3.0:1. In the event that a Regionally Beneficial Project in-service date is delayed due to construction, siting, cost management, or other reasons not related to the determination of project benefits, the benefit/costs ratio associated with the originally planned in-service date shall apply.

- d. The aforementioned Regionally Beneficial Project inclusion criteria shall be used for the exclusive purpose of determining whether projects are eligible for regional cost sharing in accordance with Section III.A.2.f below. These criteria shall not affect the existing criteria set forth in Appendix B of the ISO Agreement for determining whether projects are eligible for inclusion in the MTEP. Moreover, the costs of projects included in the MTEP, but not eligible for regional cost sharing, shall continue to be eligible for inclusion in the calculation of Transmission Owner revenue requirements under Attachment O of this Tariff.
2. Development of Additional Inclusion Criteria: The Transmission Provider shall continue to evaluate and explore with Transmission Owners, state regulatory commissions and state regulatory staffs and Transmission Provider stakeholders any additional transmission infrastructure value drivers and the methodology for evaluation and articulation of those value drivers to ensure that projects which are effective in facilitating market efficiency, and meeting regulatory policy objectives are supported and pursued.

Based upon these discussions and deliberations, the Transmission Provider shall propose through Tariff amendments subsequent adjustments to the inclusion criteria for transmission projects as analytical techniques mature. Additional eligible metrics may include quantifiable economic effects, including, but not limited to: (a) generation reserve capacity reduction value of transmission; (b) local and societal benefits of economic development; (c) investor value of asset investment and utilization; and (d) national security value of a less vulnerable infrastructure. The Transmission Provider shall only make a FERC filing to amend the inclusion criteria in the event the Transmission Provider is seeking to include additional criteria that are measurable, reproducible and that have been vetted through the Planning Advisory Committee.

III. Designation of Cost Responsibility for MTEP Projects: Based on the planning analysis performed by the Transmission Provider, which shall take into consideration all appropriate input from Market Participants or external entities, including, but not limited to, any indications of a willingness to bear cost responsibility for an enhancement or expansion, the recommended MTEP shall, for any enhancement or expansion that is included in the plan, designate: (i) the Market Participant(s) in one or more pricing zones that will bear cost responsibility for such enhancement or expansion, as and to the extent provided by any applicable provision of the Tariff, including Attachments N, R, X, or any applicable cost allocation method ordered by the Commission; or, (ii) in the event and to the extent that no provision of the Tariff so assigns cost responsibility, the Market Participant(s) or Transmission Customer(s) in one or more pricing zones from which the cost of such enhancements or expansions shall be recovered through charges established pursuant to Attachment GG of this Tariff, or as otherwise provided for under this Attachment FF. Any designation under clause (ii) of the preceding sentence shall be determined as provided for in Section III.A and III.B of this Attachment FF. For all such designations, the Transmission Provider shall calculate the cost allocation impacts to each pricing zone. The results will be reviewed for unintended consequences by the Transmission Provider and the Tariff Working Group and any such identified consequences shall be reported to the Planning Advisory Committee, and the OMS.

A. Allocation of Costs Within the Transmission Provider Region

1. Default Cost Allocation: Except as otherwise provided for in this Attachment FF, or by any other applicable provision of this Tariff and consistent with the ISO Agreement, the responsibility for Network Upgrades included in the approved MTEP will be addressed in accordance with the provisions of the ISO Agreement.

2. Cost Allocation: The Transmission Provider will designate and assign cost responsibility on a regional, and sub-regional basis for Network Upgrades identified in the MTEP subject to the grand-fathered project provisions of Section III.A.2.b, and to the threshold criteria for facility voltage and Project Cost found in Section III.A.2.c.

a. **Market Participant's Option to Fund**: Notwithstanding the Transmission Provider's assignment of cost responsibility for a project included in the MTEP, one or more Market Participants may elect to assume cost responsibility for any or all costs of a Network Upgrade that is included in the MTEP. **Provided however, in the event the Market Participant is also a Transmission Owner such election of the option to fund must be made on a consistent, non-discriminatory basis.**

b. **Grandfathered Projects**: The cost allocation provisions of this Attachment FF shall not be applicable to transmission projects identified in Attachment FF-1, which is based on the list of projects designated as Planned Projects in the MTEP approved by the Transmission Provider Board on June 16, 2005 (MTEP 05) and **some additions of proposed projects that the Transmission Provider has determined to in the advanced stages of planning.**

c. **Baseline Reliability Projects: Costs of Baseline Reliability**
Projects included in the MTEP and for which (1) the Network Upgrade has a Project Cost of \$5 million or more or (2) the Network Upgrade has a Project Cost of under \$5 million and is five percent (5 %) or more of the Transmission Owner's net plant as established in Attachment O of this Tariff in effect at the time of designation of cost responsibility for the Network Upgrade, shall be subject to the cost sharing of this Attachment FF and will be assigned to the Transmission Customers in pricing zones as follows:

i. **Projects of Voltage 100 kV through 344 kV:** 100% of the Project Cost for Baseline Reliability Projects with a voltage class of 100 kV through 344 kV shall be allocated on a sub-regional basis to all Transmission Customers in designated pricing zones. The designated pricing zones and the sub-regional allocation of the Project Cost shall be determined on a case-by-case basis in accordance with a Line Outage Distribution Factor Table ("LODF Table") developed by the Transmission Provider which is similar in form to that attached hereto as Attachment FF-2. The LODF Table is based on Transmission System topology and Line-Outage Distribution Factors associated with the project under

consideration and is used to determine the pricing zones to be included in the sub-regional allocation of the Project Cost. The percentage of the sub-regional allocation assigned to each designated pricing zone shall be determined based on the relative share between pricing zones of the sum of the absolute value of the product of the Line-Outage Distribution Factor on each Branch Facility in a pricing zone and the length in miles of the Branch Facility.

- ii. Projects of Voltage 345 kV and Higher: 20% of the Project Cost for Baseline Reliability Projects with a voltage class of 345 kV or higher shall be allocated on a system-wide basis to all Transmission Customers and recovered through a system-wide rate. The remaining 80% of the Project Cost for Baseline Reliability Projects with a voltage class of 345 kV or higher shall be allocated on a sub-regional basis to all Transmission Customers in designated pricing zones. The designated pricing zones and the sub-regional allocation of the Project Cost shall be determined on a case-by-case basis in accordance with a Line Outage Distribution Factor Table (“LODF Table”) developed by the Transmission Provider similar in form to that attached hereto as Attachment FF-2.

The LODF Table is based on Transmission System topology and Line-Outage Distribution Factors associated with the project under consideration and is used to determine the pricing zones to be included in the sub-regional allocation of the Project Cost. The percentage of the sub-regional allocation assigned to each designated pricing zone shall be determined based on the relative share between pricing zones of the sum of the absolute value of the product of the Line-Outage Distribution Factor on each Branch Facility in a pricing zone and the length in miles of the Branch Facility.

d. Generation Interconnection Projects: Costs of Generation

Interconnection Projects that are not determined by the Transmission Provider to be Baseline Reliability Projects, or of Generation Interconnection Projects that are the result of advancements of a Baseline Reliability Project will be shared equally between the Interconnection Customer and the Transmission Owners constructing the project, subject to the provisions of this Section III.A.2.d. All costs of the Generation Interconnection Projects will be paid for by the Interconnection Customer in accordance with Attachments X or R. To the extent that the Interconnection Customer demonstrates at the time of Commercial

Operation of the Generating Facility that the Generating Facility has been designated as a Network Resource in accordance with the Tariff, or that a contractual commitment has been entered into with a Network Customer for capacity, or in the case of an Intermittent Resource, for energy, from the Generating Facility for a period of one (1) year or longer, the Interconnection Customer shall be repaid up to 50% of the costs of the Generation Interconnection Project funded by the Interconnection Customer. The percentage of the costs to be repaid will be 50% of the costs of the Generation Interconnection Project, pro-rated by the percentage of the Generating Facility capacity or annual available energy output contracted for and as demonstrated to the satisfaction of the Transmission Provider, and subject to the further provisions of this section. The Interconnection Customer shall be repaid a percentage of the costs of the Generation Interconnection Project funded by the Interconnection Customer based on the following options as elected by the Transmission Owner(s) constructing the project provided that each such election by a Transmission Owner must be made on a non-discriminatory and consistent basis:

1) Option 1: The Transmission Owner(s) constructing the Generation Interconnection Project will repay 100% of the costs of the Generation Interconnection Project to the Interconnection Customer under repayment terms consistent with the schedules and other terms of Attachment X. The Interconnection Customer will be charged a monthly charge to recover 50% of the Project Cost, and the Transmission Provider shall distribute these revenues to the Transmission Owner(s) constructing the project on a pro-rata share based on the Transmission Owner(s) relative portion of their revenue requirements related to the Project Cost.

The following formula shall be used in deriving the monthly charges:

$$C = \frac{A \times B}{12}$$

Where

A is the fixed charge rate for the applicable Transmission Owners.

B is the Project Cost incurred by the Transmission Owner in constructing or having constructed the facility or portion of the facility for which it is responsible.

C is the monthly dollar assessment.

The fixed charge rates used in calculating the charges under this Attachment FF for both Direct Assignment Facilities and Network Upgrades shall be developed using the formula provided in attached at Attachment GG.

If more than one Transmission Owner builds the facility, the total annual charge shall equal D, the sum of C calculated for the portion of the facility for which each Transmission Owner is responsible. In this instance, the monthly charge shall equal D divided by 12.

The charges to be paid by customers and/or loads under this Attachment FF shall be set forth in service agreements filed with the Commission. The Transmission Provider may file such service agreements unexecuted.

2) Option 2: The Transmission Owner(s) constructing the Generation Interconnection Project will repay 50% of the costs of the Generation Interconnection Project to the Interconnection Customer under repayment terms consistent with the schedules and other terms of Attachment X.

Any costs of a Generation Interconnection Project repaid by a Transmission Owner to the Interconnection Customer pursuant to Options 1 or 2 above, and for which there is not a monthly charge payable by the Interconnection Customer, will be allocated consistent with the allocations under Sections III. A.2.c.i. and III. A.2.c.ii., except that such costs associated with Generation Interconnection Projects of less than 100 kV voltage class shall also be allocated consistent with Section III. A.2.c.i.

If the Interconnection Customer is unable to demonstrate to the satisfaction of the Transmission Provider at the time of commercial operation of the Generating Facility that a contractual commitment has been entered into with a Network Customer for capacity, or in the case of an Intermittent Resource, for energy, from the Generating Facility for a period of one (1) year or longer, then the Interconnection Customer shall be directly assigned 100% of the costs of the Generator Interconnection Project. The Transmission Owner may effect this direct assignment of costs by either foregoing any repayment of costs funded by the Interconnection Customer, or by electing to repay 100% of the costs under repayment terms consistent with the schedules and other terms of Attachment X and establishing a monthly charge to recover these costs

consistent with Option 1 of this Section. The Interconnection Customer shall be entitled, pursuant to Section 46 of this Tariff, to any Financial Transmission Rights or other rights to the extent provided for under this Tariff, for any Network Upgrade costs funded by or charged to the Interconnection Customer and not subject to repayment under the provisions of this Section III.A.2.d. In the event that a Generator Interconnection Project defers or displaces a Baseline Reliability Project, the costs of the Generator Interconnection Project up to the costs of the deferred or displaced Baseline Reliability Project shall be allocated consistent with the cost allocation for the Baseline Reliability Project.

- e. Transmission Delivery Service Projects: Costs of Transmission Delivery Service Projects shall be assigned and recovered in accordance with Attachment N of this Tariff.
- f. Regionally Beneficial Projects: Costs of Regionally Beneficial Projects shall be allocated as follows:
 - i) Twenty percent (20%) of the Project Cost of the Regionally Beneficial Project shall be allocated on a system-wide basis to all Transmission Customers and recovered through a system-wide rate.

- ii) Eighty percent (80%) of the costs of the Regionally Beneficial Projects shall be allocated on a sub region-wide basis to all Transmission Customers in each of the three defined Planning Sub Regions. Planning Sub Regions shall be defined based upon the Transmission Provider Planning sub-regions: West, Central, and East as defined in Attachment FF-3. The allocated cost to each Planning Sub Region shall be based on the relative benefit determined for each Planning Sub Region that has a positive present value of annual benefits over the evaluation period using the methodology for project benefit determination of Section II.B.1.
- iii) Excessive Funding or Requirements: The Transmission Provider shall seek to identify and manage the development of, as a part of the planning process for Regionally Beneficial Projects, portfolios of projects that tend to provide benefits throughout each sub region over the planning horizon. The Transmission Provider shall analyze on an annual basis whether the project portfolios developed in accordance with this goal and the criteria in Section III. A.2.f. unintentionally result in unjust or unreasonable annual capital funding requirements for any Transmission Owner or rate increases for Transmission Customers in designated pricing zones; or otherwise result in undue discrimination between the Transmission Customers, Transmission Owners, or any

Market Participants; any such identified consequences shall be reported to the Planning Advisory Committee and to the Organization of MISO States. **After discussing such assessments with the aforementioned stakeholder bodies, and taking into consideration the cumulative experience in applying this Attachment FF, the Transmission Provider will make a determination as to whether Tariff modifications are required, and if so file such modifications.**

g. Treatment of Projects that meet both Baseline Reliability Project Criteria and the Regionally Beneficial Project Criteria: If the Transmission Provider determines that a project designated as a Regionally Beneficial Project also meets the criteria to be designated as a Baseline Reliability Project, such project shall be allocated in accordance with the Regionally Beneficial Project allocation procedures.

h. Other Projects: Unless otherwise agreed upon pursuant to Section III.A.2.a. of this Attachment FF, the costs of Network Upgrades that are included in the MTEP, but do not qualify as Baseline Reliability Projects, New Transmission Access Projects, or Regionally Beneficial Projects, shall be eligible for recovery pursuant to Attachment O of this Tariff by the Transmission Owner(s) and/or ITC(s) paying the costs of such project, subject to the requirements of **the ISO Agreement.**

i. **Withdrawal from Midwest ISO: A Party that withdraws from the Midwest ISO shall remain responsible for all financial obligations incurred while a Member of the Midwest ISO and payments applicable to time periods prior to the effective date of such withdrawal shall be honored by the Midwest ISO and the withdrawing Member, including, but not limited to, all obligations incurred by the Member pursuant to Attachment FF.**

B. Sharing of Costs with other Transmission Providers: Costs of Network Upgrades that are to be shared between Market Participants, including Transmission Customers, and market participants and transmission customers of other transmission provider organizations shall be allocated as and to the extent provided for in any joint agreements between the Transmission Provider and other transmission provider organizations as filed and accepted by the Commission.

IV. Report of Impact of Regionally Beneficial Project Provisions:

Within three (3) years after the implementation of the procedures in Attachment FF, Section II.B. and III.A.2.f, the Transmission Provider shall analyze whether the Regionally Beneficial Project procedures have resulted in efficient and economic expansion of transmission facilities in the Transmission Provider Region and will develop a summary report on the results of the process including documentation of any recommended revisions identified by the Transmission Providers, Transmission Customers, Transmission Owners or Market Participants. After discussion held at the appropriate stakeholder forum(s), the Transmission Provider shall file such report along with any proposed revisions to the inclusion criteria, the Section III.A.2.f regional cost formula, or any other aspect of the Regionally Beneficial Projects procedures set forth in this Attachment FF. Notwithstanding the foregoing, nothing in this Attachment FF shall be interpreted as limiting the Section 205 filing rights set forth in Appendix K of the ISO Agreement, including the right to file changes to the Regionally Beneficial Project or Baseline Reliability Project procedures during the three (3) year period provided for above.

V. Designation of Entities to Construct, Own and/or Finance MTEP Projects: For each project included in the recommended MTEP, the plan shall designate, based on the planning analysis performed by the Transmission Provider and based on other input from participants, including, but not limited to, any indications of a willingness to bear cost responsibility for the project; and applicable provisions of the ISO Agreement, one or more Transmission Owners or other entities to construct, own and/or finance the recommended project.

VI. Implementation of the MTEP:

A. If the Transmission Provider and any Transmission Owner's planning representatives, or other designated entity(ies), cannot reach agreement on any element of the MTEP, the dispute may be resolved through the dispute resolution procedures provided in the Tariff, or in any applicable joint operating agreement, or by the Commission or state regulatory authorities, where appropriate. The MTEP shall have as one of its goals the satisfaction of all regulatory requirements as specified in Appendix B or Article IV, Section I, Paragraph C of the ISO Agreement.

B. The Transmission Provider shall present the MTEP, along with a summary of relevant alternative projects that were not selected, to the Transmission Provider Board for approval on a biennial basis, or more frequently if needed. The proposed MTEP shall include specific projects already approved as a result of the Transmission Provider entering into Service Agreements with Transmission Customers where such agreements provide for identification of needed transmission construction, timetable, cost, and Transmission Owner or other parties' construction responsibilities.

C. Approval of the MTEP by the Transmission Provider Board certifies it as the Transmission Provider plan for meeting the transmission needs of all stakeholders subject to any required approvals by federal or state regulatory authorities. The Transmission Provider shall provide a copy of the MTEP to all applicable federal and state regulatory authorities. The affected Transmission Owner(s), or other designated entity(ies), shall

make a good faith effort to design, certify, and build the designated facilities to fulfill the approved MTEP. However, in the event that a proposed project is being challenged through the dispute resolution procedures under this Tariff, the obligation of the Transmission Owners, or other designated entity(ies), to build that specific project (subject to required approvals) is waived until the project emerges from the dispute resolution procedures as an approved project. The Transmission Provider Board shall allow the Transmission Owners, or other designated entity(ies), to optimize the final design of specific facilities and their in-service dates if necessary to accommodate changing conditions, provided that such changes comport with the approved MTEP and provided that any such changes are accepted by the Transmission Provider. Any disagreements concerning such matters shall be subject to the dispute resolution procedures of this Tariff.

D. The Transmission Provider shall assist the affected Owner(s), or other designated entity(ies), in justifying the need for, and obtaining certification of, any facilities required by the approved MTEP by preparing and presenting testimony in any proceedings before state or federal courts, regulatory authorities, or other agencies as may be required. The Transmission Provider shall publish annually, and distribute to all Members and all appropriate state regulatory authorities, a five-to-ten-year planning report of forecasted transmission requirements. Annual reports and planning reports shall be available to the general public upon request.

Attachment FF – 1
List of Planned Projects to be Excluded from Regional Cost Allocation

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ALT	90	Emery - Lime Creek 161 ckt 2, Sum rate 326	189	Emery	Lime Creek	2	161		1-Jun-06	\$8,000,000	Planned
ALT	93	Poweshiek - Reasnor 161 ckt 1, Sum rate 326	187	Poweshiek	Reasnor	1	161		1-Jun-05	\$6,200,000	Planned
ALT	588	Asbury - Lore 161 kV line	660	Asbury	Lore	1	161		1-Jun-05	\$411,940	Planned
Ameren	77	Callaway - Franks 345 kV line	46	Callaway	Franks	1	345		1-Dec-06	\$28,776,100	Planned
Ameren	78	Jefferson City Area Development (Moreau - Apache Flats 161, Loose Creek - Jefferson City 345, Jefferson City 345/161 tx)	50	Moreau	Apache Flats	1	161		1-Jun-07	\$13,297,900	Planned
Ameren	78	Jefferson City Area Development (Moreau - Apache Flats 161, Loose Creek - Jefferson City 345, Jefferson City 345/161 tx)	59	Loose Creek	Jefferson City	1	345		1-Jun-07	\$7,242,200	Planned
Ameren	78	Jefferson City Area Development (Moreau - Apache Flats 161, Loose Creek - Jefferson City 345, Jefferson City 345/161 tx)	65	Jefferson City 345/161	transformer	1	345	161	1-Jun-07	\$4,677,200	Planned
Ameren	87	St. Francois - Rivermines 138 ckt 3, Sum rate 418	53	St. Francois	Rivermines	3	138		1-Jun-05	\$12,102,400	Planned
Ameren	88	Tazewell - E. Springfield 138 kV line rebuild	42	Tazewell	E. Springfield	1	138		28-Feb-05	\$8,468,800	Planned
Ameren	126	Rivermines - Clark 138 ckt 1, Sum rate 418	29	Rivermines	Clark	1	138		1-Jun-05	\$2,581,200	Planned
Ameren	127	Newton Plant - Breaker Replacements (2) 138 ckt , Sum rate	41	Newton Plant	Breaker Replacements (2)		138		1-Jun-05	\$447,500	Planned
Ameren	128	California - Barnett 161 ckt 1, Sum rate 180	45	California	Barnett	1	161		1-Jun-05	\$289,300	Planned
Ameren	129	Conway - Breaker Additions 138 ckt , Sum rate	49	Conway	Breaker Additions		138		1-Jun-06	\$635,300	Planned
Ameren	130	Warson - Breaker Additions 138 ckt , Sum rate	54	Warson	Breaker Additions		138		1-Jun-06	\$618,300	Planned
Ameren	131	Kansas West - Sidney (breaker addition at Kansas) 345 ckt 1, Sum rate	387	Kansas West	Sidney (breaker addition at Sidney)	1	345		1-Jun-05	\$904,600	Planned
Ameren	132	Paxton - Paxton East (reconductor) 138 ckt 1, Sum rate	389	Paxton	Paxton East (reconductor)	1	138		1-Jun-05	\$540,300	Planned
Ameren	133	Cahokia - Meramec (reconductor) 138 ckt 1 & 2, Sum rate 473	43	Cahokia	Meramec (Reconductor)	1	138		1-Jun-06	\$1,287,200	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
Ameren	133	Cahokia - Meramec (reconductor) 138 ckt 1 & 2, Sum rate 473	44	Cahokia	Meramec (Reconductor)	2	138		1-Jun-06	\$1,287,200	Planned
Ameren	135	Campbell - Maline (reconductor) 138 ckt 1 & 2, Sum rate 478	47	Campbell	Maline (reconductor)	1	138		1-Jun-06	\$712,150	Planned
Ameren	135	Campbell - Maline (reconductor) 138 ckt 1 & 2, Sum rate 478	48	Campbell	Maline (reconductor)	2	138		1-Jun-06	\$712,150	Planned
Ameren	138	Roxford - Mississippi Tap (reconductor) 138 ckt 1 & 2, Sum rate 418	63	Roxford	Mississippi Tap (reconductor)	1	138		1-Jun-06	\$762,650	Planned
Ameren	138	Roxford - Mississippi Tap (reconductor) 138 ckt 1 & 2, Sum rate 418	64	Roxford	Mississippi Tap (reconductor)	2	138		1-Jun-06	\$762,650	Planned
Ameren	140	Newton - Effingham (reconductor) 138 ckt 1, Sum rate 351	390	Newton	Effingham (reconductor)	1	138		1-Jun-06	\$5,461,700	Planned
Ameren	143	Cahokia - N. Coulterville 230 ckt 1, Sum rate 353	56	Cahokia	N. Coulterville	1	230		1-Jun-07	\$427,200	Planned
Ameren	144	Crab Orchard - Marion South (reconductor) 138 ckt 1, Sum rate 351	392	Crab Orchard	Marion South (reconductor)	1	138		1-Jun-07	\$2,466,500	Planned
Ameren	145	Havana - Ipava (reconductor) 138 ckt 1, Sum rate 212	393	Havana	Ipava (reconductor)	1	138		1-Jun-06	\$3,282,100	Planned
Ameren	149	Mason - Sioux (breaker addition at Mason) 345 ckt 1, Sum rate	397	Mason	Sioux (breaker addition at Mason)	1	345		1-Jun-07	\$502,900	Planned
Ameren	155	Joachim 345/138 ckt 1, Sum rate 560	401	Joachim 345/138 kV	transformer	1	345	138	1-Jun-07	\$12,597,700	Planned
Ameren	704	Grand Tower - Carbondale, Northwest 138 ckt # 1	1395	Grand Tower	Carbondale, Northwest	1	138		1-Jun-05	\$413,500	Planned
Ameren	705	Kinmundy - Louisville (Increase ground clearance) 138 ckt # 1	1396	Kinmundy	Louisville (Increase ground clearance)	1	138		1-Jun-05	\$1,316,600	Planned
Ameren	707	Adair (Install Breaker for Thomas Hill Line) - Install 161 kV Breaker at Adair 161	1398	Adair (Install Breaker for Thomas Hill Line)	Install 161 kV Breaker at Adair		161		1-Jun-06	\$167,400	Planned
Ameren	708	Casey - Breed (reconductor riv. Crossing) 345 ckt # 1	1399	Casey	Breed (reconductor riv. Crossing)	1	345		1-Jun-06	\$350,100	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
Ameren	709	Frederick - Meredosia (Increase ground clearance) 138 ckt # 1	1400	Frederick	Meredosia (Increase ground clearance)	1	138		1-Jun-06	\$704,600	Planned
Ameren	710	Kinmundy - Salem (Increase ground clearance) 138 ckt # 1	1401	Kinmundy	Salem (Increase ground clearance)	1	138		1-Jun-06	\$604,200	Planned
Ameren	711	Wood River - Gillespie (reconductor) 138 ckt # 1	1402	Wood River	Gillespie (reconductor)	1	138		1-Jun-07	\$800,000	Planned
Ameren	712	Mason - Labadie-Mason-3 Term. Equipment replacement 345 ckt # 1	1403	Mason	Labadie-Mason-3 Term. Equipment replacement	1	345		1-Jun-07	\$177,500	Planned
Ameren	713	Meramec Plant - Replace 4-138 kV Breakers	1404	Meramec Plant	Replace 4-138 kV Breakers		138		1-Jun-07	\$947,600	Planned
Ameren	715	Wildwood - Gray Summit (reconductor) 138 ckt # 1	1406	Wildwood	Gray Summit (reconductor)	1	138		1-Jun-07	\$62,050	Planned
Ameren	716	Wildwood - Gray Summit (reconductor) 138 ckt # 2	1407	Wildwood	Gray Summit (reconductor)	2	138		1-Jun-07	\$62,050	Planned
Ameren	717	Conway - Orchard Gardens (increase ground clearance) 138 ckt # 1	1408	Conway	Orchard Gardens (increase ground clearance)	1	138		1-Jun-08	\$5,000	Planned
Ameren	718	Conway - Orchard Gardens (increase ground clearance) 138 ckt # 2	1409	Conway	Orchard Gardens (increase ground clearance)	2	138		1-Jun-08	\$5,000	Planned
Ameren	720	Page Substation - Replace 3-138 kV Breakers	1411	Page Substation	Replace 3-138 kV Breakers		138		1-Jun-08	\$576,900	Planned
AmerenIP	542	South Street sub 138 kV 50 MVAR capacitor	3096	Kewanee South St	Capacitor		138		1-Jun-05	\$500,000	Planned
AmerenIP	724	Rising (138 kV breaker addition) - Bondville Rt. 10 138 ckt # 1	1417	Rising (138 kV breaker addition)	Bondville Rt. 10	1	138		1-Jun-06	\$1,900,000	Planned
AmerenIP	725	N. LaSalle (138 kV breaker addition) - N. Ottawa (new 3 terminal ring bus) 138 ckt # 1	1418	N. LaSalle (138 kV breaker addition)	N. Ottawa (new 3 terminal ring bus)	1	138		1-Jun-07	\$13,300,000	Planned
AmerenIP	726	N. Ottawa - Ottawa (2 new 138 kV breakers) 138 ckt # 1	1419	N. Ottawa	Ottawa (2 new 138 kV breakers)	1	138		1-Jun-07	\$2,000,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
AmerenIP	727	N. Ottawa - Wedron 138 ckt # 1	1420	N. Ottawa	Wedron	1	138		1-Jun-07	\$4,000,000	Planned
AmerenIP	733	Cuba Switching Station - Galesburg Monmouth Blvd (install breaker between taps to tfr #1 & tfr #5) 138 ckt # 1	1426	Cuba Switching Station	Galesburg Monmouth Blvd (install breaker between taps to tfr #1 & tfr #5)	1	138		1-Jun-05	\$424,000	Planned
AmerenIP	738	Line 1342C tap - Line 1342A (structure 423 to 467A reconductor) 138 ckt # 1	1431	Line 1342C tap	Line 1342A (structure 423 to 467A reconductor)	1	138		1-Jun-06	\$1,500,000	Planned
AmerenIP	785	Oglesby 138 kV 54 MVAR Capacitor	3097	Oglesby	Capacitor		138		1-Jun-05	\$500,000	Planned
AmerenIP	786	South Ottawa 138 kV 30 MVAR Capacitor	3098	South Ottawa	Capacitor		138		1-Jun-05	\$400,000	Planned
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	121	Dewey Tap	Weston		115		1-Jun-06	\$2,300,000	Planned
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	127	Northpoint	Dewey Tap		115		1-Jun-06	\$1,100,000	Planned
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	135	Arrowhead	Gardner Park	1	345		30-Jun-08	\$364,645,723	Planned
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	136	Gardner Park (was Weston) 345-115	transformer	1	345	115	1-Jun-06	\$12,992,000	Planned
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	137	Gardner Park (was Weston) 345-115	transformer	2	345	115	1-Jun-06	\$12,992,000	Planned
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	318	Arrowhead 230-230 kV	Phase-Shifter	1	230	230	30-Jun-08	\$13,741,773	Planned
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	319	Arrowhead 345/230 kV	transformer	1	345	230	30-Jun-08	\$10,400,000	Planned
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	472	Gardner Park (new Weston)	Weston	1	115		1-Jun-06	\$0	Planned
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	473	Gardner Park (new Weston)	Weston	2	115		1-Jun-06	\$0	Planned
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	1454	Highway V (5 ohm reactor)	Preble		138		1-Dec-05	\$0	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	2039	Arrowhead	Capacitor		230		30-Jun-08	\$1,858,227	Planned
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	2042	Gardner Park (was Weston)	Capacitor bank		115		30-Jun-08	\$882,714	Planned
ATC LLC	11	Rhinelander 115 kV Loop Short-Term Solution	97	Skawanaw	Highway 8	2	115		1-Jun-05	\$8,900,000	Planned
ATC LLC	12	West Marinette - Menominee - Rosebush - Amberg 138 ckt, (convert/rebuild) Sum rate 477	599	West Marinette (double ckt 69/138)	Menominee	1	138		1-Jun-05	\$6,900,000	Planned
ATC LLC	12	West Marinette - Menominee - Rosebush - Amberg 138 ckt, (convert/rebuild) Sum rate 477	600	Menominee	Rosebush (convert)		138		1-Jun-05	\$11,400,000	Planned
ATC LLC	12	West Marinette - Menominee - Rosebush - Amberg 138 ckt, (convert/rebuild) Sum rate 477	601	Rosebush	Amberg (rebuild)		138		1-Jun-05	\$6,800,000	Planned
ATC LLC	15	Plains - Amberg - Stiles 138 kV line rebuild	116	Amberg	Plains (rebuild)		138		1-Aug-05	\$7,500,000	Planned
ATC LLC	15	Plains - Amberg - Stiles 138 kV line rebuild	117	Amberg	Crivitz (rebuild)		138		1-Jun-06	\$7,500,000	Planned
ATC LLC	15	Plains - Amberg - Stiles 138 kV line rebuild	120	Crivitz	Stiles (rebuild)		138		1-Jun-06	\$7,500,000	Planned
ATC LLC	15	Plains - Amberg - Stiles 138 kV line rebuild	128	NOW	Amberg (rebuild)		138		1-Jun-06	\$7,500,000	Planned
ATC LLC	15	Plains - Amberg - Stiles 138 kV line rebuild	129	Plains	NOW (rebuild)		138		1-Jun-06	\$7,500,000	Planned
ATC LLC	15	Plains - Amberg - Stiles 138 kV line rebuild	133	Stiles	Amberg (rebuild)		138		1-Jun-06	\$7,500,000	Planned
ATC LLC	22	Femrite - Sprecher 138 (new), Sprecher - Reiner 138 (conversion), Reiner - Sycamore 138 (conversion),	123	Femrite	Sprecher (new 138 kV)	1	138		1-Jun-07	\$7,420,000	Planned
ATC LLC	22	Femrite - Sprecher 138 (new), Sprecher - Reiner 138 (conversion), Reiner - Sycamore 138 (conversion),	131	Reiner	Sycamore (conversion to 138 kV)		138		1-Jun-07	\$1,250,000	Planned
ATC LLC	22	Femrite - Sprecher 138 (new), Sprecher - Reiner 138 (conversion), Reiner - Sycamore 138 (conversion),	132	Sprecher	Reiner (conversion to 138 kV)		138		1-Jun-07	\$1,250,000	Planned
ATC LLC	62	Wien - Stratford - McMillan 115 ckt , Sum rate 202	108	Stratford	McMillan		115		1-May-05	\$1,500,000	Planned
ATC LLC	62	Wien - Stratford - McMillan 115 ckt , Sum rate 202	110	Wien	Stratford		115		1-May-05	\$1,500,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ATC LLC	64	Kegonsa - McFarland - Femrite conversion to 138 kV	86	Kegonsa	McFarland (conversion to 138 kV)		138		1-Jun-07	\$2,410,000	Planned
ATC LLC	64	Kegonsa - McFarland - Femrite conversion to 138 kV	87	McFarland	Femrite (conversion to 138 kV)		138		1-Jun-07	\$1,000,000	Planned
ATC LLC	66	Morgan - Falls - Pioneer -Stiles 138 ckt , Sum rate 290	98	Falls	Pioneer		138		1-Jun-05	\$2,093,333	Planned
ATC LLC	66	Morgan - Falls - Pioneer -Stiles 138 ckt , Sum rate 290	99	Morgan	Falls		138		1-Jun-05	\$2,093,333	Planned
ATC LLC	66	Morgan - Falls - Pioneer -Stiles 138 ckt , Sum rate 290	100	Pioneer	Stiles		138		1-Jun-05	\$2,093,333	Planned
ATC LLC	69	Waukesha - Duplainville - Sussex 138 kV line	102	Duplainville	Sussex		138		1-Oct-05	\$5,650,000	Planned
ATC LLC	69	Waukesha - Duplainville - Sussex 138 kV line	109	Waukesha	Duplainville		138		1-Oct-05	\$5,650,000	Planned
ATC LLC	101	Kelly - Whitcomb 115 ckt, Sum rate 241	125	Kelly	Whitcomb		115		30-Jun-08	\$4,160,000	Planned
ATC LLC	112	Columbia - North Madison 345 line and North Madison 345/138 tx replacement	333	Columbia	North Madison (convert)		345		1-Jun-06	\$6,000,000	Planned
ATC LLC	112	Columbia - North Madison 345 line and North Madison 345/138 tx replacement	334	North Madison 345-138 (replace)	transformer	1	345	138	1-Jun-06	\$9,500,000	Planned
ATC LLC	112	Columbia - North Madison 345 line and North Madison 345/138 tx replacement	438	North Madison 345-138 (replace)	transformer	2	345	138	1-Jun-06	\$9,500,000	Planned
ATC LLC	159	Bell Plaine - Badger/Caroline 115 ckt, Sum rate 120	602	Bell Plaine	Badger/Caroline		115		1-Jun-04	\$1,100,000	Planned
ATC LLC	160	Wempletown - Paddock 345 ckt 2, Sum rate 1200	344	Wempletown	Paddock	2	345		1-Jun-05	\$5,600,000	Planned
ATC LLC	161	Bunker Hill - Pine 115 ckt , Sum rate 242	424	Bunker Hill	Pine		115		1-Jun-05	\$480,000	Planned
ATC LLC	162	Edgewater transformer - 345/138 ckt 2, Sum rate 500	427	Edgewater 345/138	transformer	2	345	138	1-Jun-05	\$3,460,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ATC LLC	163	Kegonsa - Christiana (reconductor and reconfigure double ckt at Kegonsa) 138 ckt 2, Sum rate 478	428	Kegonsa	Christiana (reconductor and reconfigure double ckt at Kegonsa)	2	138		1-Jun-05	\$6,500,000	Planned
ATC LLC	164	Morgan - White Clay (uprate) 138 ckt, Sum rate 345	437	Morgan	White Clay (uprate)		138		1-Jun-05	\$1,067,000	Planned
ATC LLC	167	Lewiston - Kilbourn (uprate) 138 ckt, Sum rate 286	605	Lewiston	Kilbourn (uprate)		138		1-Jun-05	\$100,000	Planned
ATC LLC	169	Forest Junction/Cedarsauk Tap - Howard's Grove 138 ckt, Sum rate 290	590	Forest Junction/Cedarsauk Tap	Howard's Grove		138		1-Jun-05	\$8,200,000	Planned
ATC LLC	171	Weston - Kelly 115 ckt, Sum rate 239	439	Weston	Kelly		115		1-Jun-06	\$1,700,000	Planned
ATC LLC	327	Boxelder - Rockdale - Lakehead Cambridge - Jefferson 138 kV line, 383 MVA	429	Lakehead Cambridge	Jefferson		138		1-Jun-07	\$150,000	Planned
ATC LLC	327	Boxelder - Rockdale - Lakehead Cambridge - Jefferson 138 kV line, 383 MVA	433	Rockdale	Lakehead Cambridge		138		1-Jun-07	\$150,000	Planned
ATC LLC	327	Boxelder - Rockdale - Lakehead Cambridge - Jefferson 138 kV line, 383 MVA	434	Rockdale	Boxelder	1	138		1-Jun-07	\$300,000	Planned
ATC LLC	333	Straits - Pine River - Hiawatha - Indian Lake 138 kV line	474	Hiawatha	Indian Lake (rebuild in 2004/2005 and convert in 2009)	1	138		1-May-09	\$2,100,000	Planned
ATC LLC	333	Straits - Pine River - Hiawatha - Indian Lake 138 kV line	596	Hiawatha	Indian Lake (string second 138 kV circuit)	2	138		1-May-09	\$200,000	Planned
ATC LLC	339	Jefferson - Lake Mills - Stonybrook 138 kV line, 386 MVA	449	Jefferson	Lake Mills		138		1-Jun-07	\$5,630,000	Planned
ATC LLC	343	Columbia - Portage 138 kV lines 1 & 2, 386 MVA	422	Columbia	Portage	2	138		1-May-05	\$200,000	Planned
ATC LLC	343	Columbia - Portage 138 kV lines 1 & 2, 386 MVA	423	Columbia	Portage	1	138		1-May-05	\$200,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ATC LLC	350	Weston - Sherman Street - Hilltop 115 kV line rebuild as double circuit	451	Morrison Ave	Sherman St		115		1-Jun-07	\$250,000	Planned
ATC LLC	350	Weston - Sherman Street - Hilltop 115 kV line rebuild as double circuit	458	Weston	Morrison Ave		115		1-Jun-07	\$250,000	Planned
ATC LLC	350	Weston - Sherman Street - Hilltop 115 kV line rebuild as double circuit	459	Weston	Sherman St		115		1-Jun-07	\$3,750,000	Planned
ATC LLC	350	Weston - Sherman Street - Hilltop 115 kV line rebuild as double circuit	1247	Weston	Hilltop		115		1-Jun-07	\$3,750,000	Planned
ATC LLC	408	Hodag 115, 10 MVAR (addition) Capacitor bank	2015	Hodag	Capacitor bank		115		1-May-05	\$810,984	Planned
ATC LLC	429	Council Creek 138, 16.4 MVAR Capacitor Bank	2058	Council Creek	Capacitor Bank		138		1-May-05	\$688,415	Planned
ATC LLC	551	Stone Lake 345/161 tap of Arrowhead-Gardner Park 345 kV line	1242	Stone Lake 345-161kV	transformer	1	345	161	1-Jun-06	\$8,100,000	Planned
ATC LLC	564	Paris-St. Martins 138 kV line rebuilding with 477 T2-ACSR conductor	1241	Paris	St. Martins	1	138		1-Jun-05	\$5,000,000	Planned
ATC LLC	566	Forest Junction / Charter Steel to Plymouth 138 kV line and T-D substation. Construct 1.3 mile double circuit from Plymouth municipal utility to existing line.	1244	Plymouth	Forest Junction/Charter Steel	1	138		1-Jun-07	\$3,500,000	Planned
ATC LLC	567	North Appleton - Lawn Road - White Clay 138 kV line upgrade. This project increases line clearance on the 30 mile line.	1245	North Appleton	Lawn Road	1	138		1-Jun-07	\$250,000	Planned
ATC LLC	567	North Appleton - Lawn Road - White Clay 138 kV line upgrade. This project increases line clearance on the 30 mile line.	1246	Lawn Road	White Clay	1	138		1-Jun-07	\$250,000	Planned
ATC LLC	568	North Lake Geneva - White River 138 kV line	1249	North Lake Geneva	White River	1	138		1-Jun-08	\$1,250,000	Planned
ATC LLC	570	Rock River - Bristol - Elkhorn conversion to 138 kV	1252	Rock River	Turtle	1	138		1-Jun-08	\$1,610,612	Planned
ATC LLC	570	Rock River - Bristol - Elkhorn conversion to 138 kV	1253	Turtle	Sunrise	1	138		1-Jun-08	\$1,610,612	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ATC LLC	570	Rock River - Bristol - Elkhorn conversion to 138 kV	1254	Turtle	La Prairie RCEC	1	138		1-Jun-08	\$1,610,612	Planned
ATC LLC	570	Rock River - Bristol - Elkhorn conversion to 138 kV	1255	La Prairie RCEC	Bradford RCEC	1	138		1-Jun-08	\$1,610,612	Planned
ATC LLC	570	Rock River - Bristol - Elkhorn conversion to 138 kV	1256	Bradford RCEC	West Darien	1	138		1-Jun-08	\$3,410,708	Planned
ATC LLC	570	Rock River - Bristol - Elkhorn conversion to 138 kV	1257	West Darien	Southwest Delavan	1	138		1-Jun-08	\$1,610,612	Planned
ATC LLC	570	Rock River - Bristol - Elkhorn conversion to 138 kV	1258	Southwest Delavan	North Shore	1	138		1-Jun-08	\$3,410,708	Planned
ATC LLC	570	Rock River - Bristol - Elkhorn conversion to 138 kV	1259	North Shore	Bristol	1	138		1-Jun-08	\$1,610,612	Planned
ATC LLC	570	Rock River - Bristol - Elkhorn conversion to 138 kV	1260	Bristol	Elkhorn	1	138		1-Jun-08	\$3,410,708	Planned
ATC LLC	571	North Madison - Waunakee 138 kV line and expansion at Waunakee to accommodate new 138 kV facilities	1261	North Madison	Waunakee	1	138		1-Jun-08	\$6,500,000	Planned
ATC LLC	572	Loop West Marinette - Bay de Noc 138 kV line into Menomonie. Total project cost \$3,000,000.	1262	West Marinette	Menominee	2	138		1-Jun-08	\$3,721,083	Planned
ATC LLC	572	Loop West Marinette - Bay de Noc 138 kV line into Menomonie. Total project cost \$3,000,000.	1263	Menominee	Bay de Noc	1	138		1-Jun-08	\$1,793,938	Planned
ATC LLC	576	Southeast Fitchburg - Sugar River 138 kV line with Sugar River 138/69 kV substation	1273	Southeast Fitchburg	Sugar River	1	138		1-Jun-09	\$5,100,000	Planned
ATC LLC	803	Paris - Albers 138 kV line upgrade	1455	Paris	Albers		138		1-Jun-05	\$500,000	Planned
CILCO	125	Hines - Pioneer (convert UG to OH) 138 ckt 1, Sum rate	384	Hines	Pioneer (convert UG to OH)	1	138		1-Jun-04	\$417,200	Planned
CILCO	141	Duck Creek - Tazewell (convert bus duct to OH) 345 ckt 1, Sum rate	386	Duck Creek	Tazewell (convert bus duct to OH)	1	345		1-Jun-06	\$361,800	Planned
CIN	42	Bedford - Shawswick - Pleasant Grove - Airport Road Jct - Seymour 138 ckt 1, Sum rate 304	181	Airport Road Jct	Seymour	1	138		1-Jun-09	\$752,906	Planned
CIN	42	Bedford - Shawswick - Pleasant Grove - Airport Road Jct - Seymour 138 ckt 1, Sum rate 304	182	Bedford	Shawswick	1	138		1-Jun-07	\$2,110,106	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
CIN	42	Bedford - Shawswick - Pleasant Grove - Airport Road Jct - Seymour 138 ckt 1, Sum rate 304	183	Pleasant Grove	Airport Road Jct	1	138		1-Jun-09	\$3,388,077	Planned
CIN	42	Bedford - Shawswick - Pleasant Grove - Airport Road Jct - Seymour 138 ckt 1, Sum rate 304	184	Shawswick	Pleasant Grove	1	138		1-Jun-09	\$4,719,516	Planned
CIN	115	New London - Webster 230 ckt 1, Sum rate 800	366	New London	Webster	1	230		1-Jun-07	\$9,455,194	Planned
CIN	116	Westwood - Dequine 345 kV line and Westwood 345/138 TX 2	357	Westwood 345/138	transformer	2	345	138	1-Jun-07	\$6,093,584	Planned
CIN	116	Westwood - Dequine 345 kV line and Westwood 345/138 TX 2	367	Westwood	Dequine	1	345		1-Jun-07	\$588,366	Planned
CIN	190	Cayuga - Nucor 345 ckt 1, Sum rate 1386	612	Cayuga	Nucor	1	345		1-May-05	\$46,532	Planned
CIN	191	Buffington - 345/138 ckt 2, Sum rate 499	359	Buffington 345/138	transformer	2	345	138	1-Jun-05	\$4,638,538	Planned
CIN	192	Warren - Todhunter 138 ckt 1, Sum rate 309	361	Warren	Todhunter	1	138		1-Jun-05	\$1,044,596	Planned
CIN	193	Beckjord - Feldman 138 ckt 1, Sum rate 308	363	Beckjord	Feldman	1	138		1-Jun-05	\$1,355,424	Planned
CIN	195	Beckjord - Silver Grove 138 ckt 1, Sum rate 304	365	Beckjord	Silver Grove	1	138		1-Jun-05	\$2,029,712	Planned
CIN	196	Madison West - Scottsburg 138 ckt 1, Sum rate 215	516	Madison West	Scottsburg	1	138		1-Jun-05	\$9,609,813	Planned
CIN	197	Louisville Cement Jct - Louisville Cement 138 ckt 1, Sum rate 130	520	Louisville Cement Jct	Louisville Cement	1	138		1-Dec-05	\$66,400	Planned
CIN	198	Port Union - Hall 138 ckt 1, Sum rate 300	594	Port Union	Hall	1	138		1-Jun-06	\$510,706	Planned
CIN	199	Kokomo - 230/138 ckt 1, Sum rate 200	356	Kokomo 230/138	transformer	2	230	138	1-Jun-07	\$3,278,756	Planned
CIN	200	West Lafayette Purdue - Purdue NW Tap 138 ckt 1, Sum rate 179	618	West Lafayette Purdue	Purdue NW Tap	1	138		1-Jun-07	\$9,878	Planned
CIN	201	NW Tap - West Lafayette 138 ckt 1, Sum rate 240	536	NW Tap	West Lafayette	1	138		1-Jun-08	\$100,000	Planned
CIN	302	Shawswick - Pleasant Grove - Airport Road Jct 138 kV line	614	Shawswick	Pleasant Grove	1	138		1-May-05	\$97,595	Planned
CIN	302	Shawswick - Pleasant Grove - Airport Road Jct 138 kV line	615	Pleasant Grove (terminal)	Airport Road Jct (terminal)	1	138		1-May-05	\$97,595	Planned
CIN	304	Gibson - Duff 345 ckt 1, Sum rate 1386	619	Gibson	Duff	1	345		1-Jun-05	\$100,000	Planned
CIN	426	Lafayette 138, 86.4 MVAR Capacitor	2051	Lafayette	Capacitor		138		1-Jun-05	\$391,514	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
CIN	445	Buffington-Florence 138, 337 MVA Reactor (change Impedance from 5% to 3%)	2081	Buffington (Buff-Florence 138)	Reactor (change Impedance from 5% to 3%)		138		1-Jun-05	\$0	Planned
CIN	449	Batesville 138, 86.4 MVAR Capacitor	2085	Batesville	Capacitor		138		1-Jun-05	\$721,909	Planned
CIN	619	IPL Petersburg 345	1292	IPL Petersburg			345		1-Jun-06	\$200,000	Planned
CIN	620	Trenton - Todhunter 138	1294	Trenton	Todhunter		138		1-Jun-06	\$1,150,000	Planned
CIN	621	Veedersburg West - Cayuga 230 kV (wavetrap)	1296	Veedersburg West	Cayuga	1	230		1-Jun-06	\$60,760	Planned
CIN	622	Walton - Kokomo Webster St 230 ckt # 1	1297	Walton	Kokomo Webster St	1	230		1-Jun-06	\$60,760	Planned
CIN	623	Warren - Hillsboro 138 kV	1298	Warren	Hillsboro		138		1-Jun-06	\$1,350,000	Planned
CIN	624	Cloverdale - Plainfield South 138 ckt # 1	1300	Cloverdale	Plainfield South	1	138		1-Dec-06	\$4,545,972	Planned
CIN	626	Buffington - Hands 138 ckt # 1	1303	Buffington	Hands	1	138		1-Jun-07	\$1,000,134	Planned
CIN	627	Kenton - West End 138 ckt # 1	1304	Kenton	West End	1	138		1-Jun-07	\$1,980,041	Planned
CIN	628	Kokomo Delco - Kokomo Highland Park - Kokomo Chrysler 138 ckt # 1	1305	Kokomo Highland Park	Kokomo Chrysler	1	138		1-Jun-07	\$100,000	Planned
CIN	628	Kokomo Delco - Kokomo Highland Park - Kokomo Chrysler 138 ckt # 1	1306	Kokomo Highland Park	Kokomo Delco	1	138		1-Jun-07	\$100,000	Planned
CIN	630	West Lafayette - Cumberland 138 ckt # 1	1307	West Lafayette	Cumberland	1	138		1-Jun-07	\$154,757	Planned
CIN	631	Columbus - Seymour 138 ckt # 1	1308	Columbus	Seymour	1	138		1-Jun-09	\$100,000	Planned
CIN	632	Gallagher - HE Georgetown 138 ckt # 1	1309	Gallagher	HE Georgetown	1	138		1-Jun-09	\$300,000	Planned
CIN	764	Staunton 138 kV 43 MVAR Capacitor	3054	Staunton	Capacitor		138		1-Jun-06	\$500,000	Planned
CIN	765	Cloverdale 138 kV 43.2 MVAR Capacitor	3058	Cloverdale	Capacitor		138		1-Dec-06	\$524,860	Planned
CIN	766	Clarksville 138 kV 57.6 MVAR Capacitor	3060	Clarksville	Capacitor		138		1-Jun-07	\$500,000	Planned
CIN	767	Greenfield Hastings Park 138 kV 57.6 MVAR Capacitor	3062	Greenfield Hastings Park	Capacitor		138		1-Jun-07	\$500,000	Planned
FE	203	Beaver - Greenfield 138 ckt 1, Sum rate	375	Beaver	Greenfield	1	138		1-Jun-04	\$4,500,000	Planned
FE	428	Fowels 138, 212 MVAR Capacitor Bank (4 units)	2054	Fowels	Capacitor Bank (4 units)		138		1-Jun-04	\$4,301,069	Planned
FE	614	Star 345/138 kV transformer prep	1282	Star 345kV TX Prep.	Star 138kV TX Prep		345	138	1-Dec-05	\$4,486,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
FE	615	Galion 345/138 kV transformer prep	1283	Galion 345kV TX Prep.	Galion 138kV TX Prep		345	138	1-Dec-06	\$1,000,000	Planned
FE	616	Crissinger - Tangy 138 kV line	1284	Crissinger	Tangy	1	138		1-Jun-06	\$4,750,000	Planned
FE	759	Eastlake 138 kV 2 x 52.8 MVAR Capacitors	3036	Eastlake	Two 52.8 MVAR capacitors		138		1-Jun-05	\$1,039,000	Planned
FE	760	Allen Junction 138 kV 2 x 52.8 MVAR Capacitors	3037	Allen Junction	Two 52.8 MVAR capacitors		138		1-Jun-05	\$958,000	Planned
FE	761	Wauseon 138 kV 53 MVAR One 52.8 MVAR capacitors	3038	Wauseon	One 52.8 MVAR capacitors		138		1-Jun-05	\$484,000	Planned
FE	762	Chamberlin 138 kV 53 MVAR One 52.8 MVAR capacitors	3039	Chamberlin	One 52.8 MVAR capacitors		138		1-Jun-05	\$1,229,000	Planned
FE	763	Carlisle 138 kV 2 x 52.8 MVAR Capacitors	3040	Carlisle	Two 52.8 MVAR capacitors		138		1-Jun-05	\$1,965,000	Planned
GRE	596	Vermillion River - Empire 115 kV line	1076	Vermillion River	Empire	1	115		1-May-07	\$2,750,000	Planned
GRE	597	Parkers Lake - Plymouth - Elm Creek 115 kV line	1081	Parkers Lake	Plymouth	1	115		1-May-06	\$3,660,000	Planned
GRE	597	Parkers Lake - Plymouth - Elm Creek 115 kV line	1082	Plymouth	Elm Creek	1	115		1-May-06	\$9,000,000	Planned
GRE	599	Crooked Lake - Enterprise Park 115 kV line	753	Crooked Lake	Enterprise Park	1	115		1-Jun-09	\$3,600,000	Planned
GRE	600	Baxter - Southdale 115 kV line	1078	Baxter	Southdale	1	115		31-Dec-06	\$3,500,000	Planned
GRE	601	Mud Lake - Wilson Lake 115 kV line	641	Mud Lake	Wilson Lake	1	115		1-Jun-08	\$6,000,000	Planned
GRE	753	Hubbard 115 kV 27 MVAR Capacitor	3022	Hubbard	Capacitor		115		1-Jun-05	\$594,661	Planned
IPL	40	Indian Creek - Julietta - Cumberland 138 ckt 1, Sum rate 286	177	Indian Creek	Julietta	1	138		1-Dec-06	\$951,838	Planned
IPL	40	Indian Creek - Julietta - Cumberland 138 ckt 1, Sum rate 286	178	Julietta	Cumberland	1	138		1-Dec-06	\$866,173	Planned
ITC	213	Arizona - Dayton - Collins 120 kV line	508	Arizona 120	Dayton 120	1	120		31-Dec-05	\$1,100,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ITC	213	Arizona - Dayton - Collins 120 kV line	509	Collins 120	Dayton 120	1	120		31-Dec-05	\$1,400,000	Planned
ITC	215	Thumb Loop Rebuild: Rebuild Bergen - Tuscola 120 kV to double circuit creating Hunters Creek-Lapeer-BergenTP-Tuscola 120 and Hunters Creek-Fawn-Rush TP-Tuscola 120 kV	528	Hunters Creek 120	Lapeer 120	1	120		1-Jan-06	\$5,000,000	Planned
ITC	215	Thumb Loop Rebuild: Rebuild Bergen - Tuscola 120 kV to double circuit creating Hunters Creek-Lapeer-BergenTP-Tuscola 120 and Hunters Creek-Fawn-Rush TP-Tuscola 120 kV	529	Lapeer 120	BergenTP 120	1	120		1-Jan-06	\$4,400,000	Planned
ITC	215	Thumb Loop Rebuild: Rebuild Bergen - Tuscola 120 kV to double circuit creating Hunters Creek-Lapeer-BergenTP-Tuscola 120 and Hunters Creek-Fawn-Rush TP-Tuscola 120 kV	530	BergenTP 120	Tuscola 120	1	120		1-Jan-06	\$3,500,000	Planned
ITC	215	Thumb Loop Rebuild: Rebuild Bergen - Tuscola 120 kV to double circuit creating Hunters Creek-Lapeer-BergenTP-Tuscola 120 and Hunters Creek-Fawn-Rush TP-Tuscola 120 kV	531	Hunters Creek 120	Fawn 120	1	120		1-Jan-06	\$4,800,000	Planned
ITC	215	Thumb Loop Rebuild: Rebuild Bergen - Tuscola 120 kV to double circuit creating Hunters Creek-Lapeer-BergenTP-Tuscola 120 and Hunters Creek-Fawn-Rush TP-Tuscola 120 kV	532	Fawn 120	RushTP 120	1	120		1-Jan-06	\$3,300,000	Planned
ITC	215	Thumb Loop Rebuild: Rebuild Bergen - Tuscola 120 kV to double circuit creating Hunters Creek-Lapeer-BergenTP-Tuscola 120 and Hunters Creek-Fawn-Rush TP-Tuscola 120 kV	533	RushTP 120	Tuscola 120	1	120		1-Jan-06	\$6,400,000	Planned
ITC	322	Milan 345/120 substation, Milan-Lulu 345, Milan to Dorset, Kentucky, Majestic, Pioneer 120 kV lines	521	Dorset 120	Spruce 120	1	120		30-Dec-05	\$1,100,000	Planned
ITC	322	Milan 345/120 substation, Milan-Lulu 345, Milan to Dorset, Kentucky, Majestic, Pioneer 120 kV lines	522	Dorset 120	Noble 120	1	120		30-Dec-05	\$750,000	Planned
ITC	322	Milan 345/120 substation, Milan-Lulu 345, Milan to Dorset, Kentucky, Majestic, Pioneer 120 kV lines	523	Dorset 120	Milan 120	1	120		30-Dec-05	\$2,300,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ITC	322	Milan 345/120 substation, Milan-Lulu 345, Milan to Dorset, Kentucky, Majestic, Pioneer 120 kV lines	524	Kentucky 120	Milan 120	1	120		30-Dec-05	\$450,000	Planned
ITC	322	Milan 345/120 substation, Milan-Lulu 345, Milan to Dorset, Kentucky, Majestic, Pioneer 120 kV lines	527	Milan 120	Pioneer 120	1	120		30-Dec-05	\$1,100,000	Planned
ITC	396	Wixom Station - Expansion: Split existing Placid-Wayne 345 kV circuit into Placid - Wixom and Wixom - Wayne 345 kV lines	506	Placid 345	Wixom 345	1	345		31-Dec-05	\$2,200,000	Planned
ITC	396	Wixom Station - Expansion: Split existing Placid-Wayne 345 kV circuit into Placid - Wixom and Wixom - Wayne 345 kV lines	507	Wixom 345	Wayne 345	1	345		31-Dec-05	\$3,300,000	Planned
ITC	503	Quaker project (conceptual): converting Wixom-Quaker 120 kV line to 230 kV, Wixom 345/230 TX, Quaker 230/120 TX, Quaker-Southfield 120 kV line.	757	Wixom 230	Quaker 230	1	230		30-Dec-07	\$2,300,000	Planned
ITC	503	Quaker project (conceptual): converting Wixom-Quaker 120 kV line to 230 kV, Wixom 345/230 TX, Quaker 230/120 TX, Quaker-Southfield 120 kV line.	758	Wixom 345/230	transformer	1	345	230	30-Dec-07	\$5,000,000	Planned
ITC	503	Quaker project (conceptual): converting Wixom-Quaker 120 kV line to 230 kV, Wixom 345/230 TX, Quaker 230/120 TX, Quaker-Southfield 120 kV line.	759	Quaker 230-120 kV	transformer	1	230	120	30-Dec-07	\$1,500,000	Planned
ITC	503	Quaker project (conceptual): converting Wixom-Quaker 120 kV line to 230 kV, Wixom 345/230 TX, Quaker 230/120 TX, Quaker-Southfield 120 kV line.	760	Hancock 120	Southfield 120	1	120		30-May-07	\$1,200,000	Planned
ITC	509	Lenox Station: Lenox-Jewel 345 kV line, Lenox 345/120 kV station, a 120 kV bus that ties together several 120 kV lines in the area. (Jewel, Belle River, St Clair, Victor, Augusta tap, Grayling). Was New Haven, named changed to Lenox.	761	Lenox 345	Jewel 345	1	345		30-May-07	\$1,750,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ITC	509	Lenox Station: Lenox-Jewel 345 kV line, Lenox 345/120 kV station, a 120 kV bus that ties together several 120 kV lines in the area. (Jewel, Belle River, St Clair, Victor, Augusta tap, Grayling). Was New Haven, named changed to Lenox.	762	Lenox 345	Belle River 345	1	345		30-May-07	\$1,750,000	Planned
ITC	509	Lenox Station: Lenox-Jewel 345 kV line, Lenox 345/120 kV station, a 120 kV bus that ties together several 120 kV lines in the area. (Jewel, Belle River, St Clair, Victor, Augusta tap, Grayling). Was New Haven, named changed to Lenox.	763	Lenox 345-120 kV	transformer	1	345	120	30-May-07	\$5,000,000	Planned
ITC	509	Lenox Station: Lenox-Jewel 345 kV line, Lenox 345/120 kV station, a 120 kV bus that ties together several 120 kV lines in the area. (Jewel, Belle River, St Clair, Victor, Augusta tap, Grayling). Was New Haven, named changed to Lenox.	764	Lenox 120	St Clair 120	1	120		30-May-07	\$1,300,000	Planned
ITC	509	Lenox Station: Lenox-Jewel 345 kV line, Lenox 345/120 kV station, a 120 kV bus that ties together several 120 kV lines in the area. (Jewel, Belle River, St Clair, Victor, Augusta tap, Grayling). Was New Haven, named changed to Lenox.	765	Lenox 120	Victor 120	1	120		30-May-07	\$1,300,000	Planned
ITC	509	Lenox Station: Lenox-Jewel 345 kV line, Lenox 345/120 kV station, a 120 kV bus that ties together several 120 kV lines in the area. (Jewel, Belle River, St Clair, Victor, Augusta tap, Grayling). Was New Haven, named changed to Lenox.	766	Lenox 120	Augusta Tap 120	1	120		30-May-07	\$1,300,000	Planned
ITC	509	Lenox Station: Lenox-Jewel 345 kV line, Lenox 345/120 kV station, a 120 kV bus that ties together several 120 kV lines in the area. (Jewel, Belle River, St Clair, Victor, Augusta tap, Grayling). Was New Haven, named changed to Lenox.	767	Lenox 120	Grayling 2 120	1	120		30-May-07	\$1,300,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ITC	509	Lenox Station: Lenox-Jewel 345 kV line, Lenox 345/120 kV station, a 120 kV bus that ties together several 120 kV lines in the area. (Jewel, Belle River, St Clair, Victor, Augusta tap, Grayling). Was New Haven, named changed to Lenox.	768	Lenox 120	Grayling 1 120	1	120		30-May-07	\$1,300,000	Planned
ITC	518	Bismarck-Golf 120 kV line: create a 120 kV bus group at Golf and building a new 120 kV line from Bismarck to Golf.	769	Golf 120	Bismarck 120	1	120		31-Dec-05	\$2,500,000	Planned
ITC	518	Bismarck-Golf 120 kV line: create a 120 kV bus group at Golf and building a new 120 kV line from Bismarck to Golf.	770	Golf 120	Boyne 120	1	120		30-May-07	\$1,200,000	Planned
ITC	518	Bismarck-Golf 120 kV line: create a 120 kV bus group at Golf and building a new 120 kV line from Bismarck to Golf.	771	Golf 120	Houston 2 120	1	120		30-May-07	\$1,200,000	Planned
ITC	518	Bismarck-Golf 120 kV line: create a 120 kV bus group at Golf and building a new 120 kV line from Bismarck to Golf.	772	Golf 120	Macomb 120 #1	1	120		31-Dec-05	\$1,000,000	Planned
ITC	518	Bismarck-Golf 120 kV line: create a 120 kV bus group at Golf and building a new 120 kV line from Bismarck to Golf.	773	Golf 120	Macomb 120 #2	2	120		30-May-07	\$1,600,000	Planned
ITC	518	Bismarck-Golf 120 kV line: create a 120 kV bus group at Golf and building a new 120 kV line from Bismarck to Golf.	1375	Bismarck 120 kV	Malta 120 kV	1	120		31-Dec-05	\$700,000	Planned
ITC	523	ITC-METC Interface Upgrade: (Rebuilding of Genoa-Latson 138 kV, Hunters Creek-Hemphill 138 kV, Atlanta 138-120 kV transformer, Genoa 138-120 kV transformer). This project involves replacing existing transformers with higher rated units.	700	Atlanta 138-120	transformer	1	138	120	30-May-05	\$1,200,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ITC	523	ITC-METC Interface Upgrade: (Rebuilding of Genoa-Latson 138 kV, Hunters Creek-Hemphill 138 kV, Atlanta 138-120 kV transformer, Genoa 138-120 kV transformer). This project involves replacing existing transformers with higher rated units.	701	Genoa 138-120 kV	transformer	1	138	120	30-May-05	\$1,200,000	Planned
ITC	523	ITC-METC Interface Upgrade: (Rebuilding of Genoa-Latson 138 kV, Hunters Creek-Hemphill 138 kV, Atlanta 138-120 kV transformer, Genoa 138-120 kV transformer). This project involves replacing existing transformers with higher rated units.	703	Hunters Creek 120	Hemphill 120	1	120		30-May-05	\$900,000	Planned
ITC	523	ITC-METC Interface Upgrade: (Rebuilding of Genoa-Latson 138 kV, Hunters Creek-Hemphill 138 kV, Atlanta 138-120 kV transformer, Genoa 138-120 kV transformer). This project involves replacing existing transformers with higher rated units.	776	Atlanta 120	Tuscola 120	1	120		30-May-05	\$350,000	Planned
ITC	529	Macomb 120 kV capacitor	2087	Macomb	Capacitor Bank		120		31-May-05	\$535,000	Planned
ITC	565	Pontiac-Hampton 345 kV line upgrade	702	Oakly 120	Tuscola 120	1	120		30-May-05	\$350,000	Planned
ITC	565	Pontiac-Hampton 345 kV line upgrade	704	Pontiac 345	Hampton 345	1	345		30-May-05	\$250,000	Planned
ITC	578	DVARs at Bad Axe and Lee	2100	Bad Axe	DVAR		120		31-May-05	\$3,500,000	Planned
ITC	578	DVARs at Bad Axe and Lee	2101	Lee	DVAR		120		31-May-05	\$3,500,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ITC	581	Caniff - Stephens 345 kV cable replacement	775	Stephens 345	Caniff 345	1	345		30-May-05	\$14,300,000	Planned
ITC	683	Northeast 120 kV - Lincoln 120 kV	1373	Northeast 120 kV	Lincoln 120 kV	1	120		30-May-05	\$250,000	Planned
ITC	684	Milan 345/120 kV	1374	Milan 345/120 kV	transformer	1	345	120	30-Dec-05	\$5,000,000	Planned
ITC	685	Pontiac 120 kV - Stratford 120 kV	1376	Pontiac 120 kV	Stratford 120 kV	1	120		31-Dec-05	\$500,000	Planned
LES	242	19th & Alvo - NW 12th & Arbor 115 ckt 1, Sum rate 373	191	19th & Alvo	NW 12th & Arbor	1	115		1-May-05	\$3,100,000	Planned
LES	246	NW68th & Holdrege - NW 12th & Arbor 115 ckt 1, Sum rate 373	193	NW68th & Holdrege	NW 12th & Arbor	1	115		1-May-07	\$4,608,246	Planned
LES	247	Wagener - NW68th & Holdrege 345 ckt 1, Sum rate 1088	541	Wagener	NW68th & Holdrege	1	345		1-May-08	\$22,033,174	Planned
LES	590	56th & Pine Lake - 40th & Rokeby - 27th & Pine Lake 115 kV line	684	27th & Pine Lake	40th & Rokeby	1	115		1-May-06	\$1,674,138	Planned
LES	590	56th & Pine Lake - 40th & Rokeby - 27th & Pine Lake 115 kV line	685	56th & Pine Lake	40th & Rokeby	1	115		1-May-06	\$1,674,138	Planned
LGEE	305	Middletown 345/138 transformers 1, 2, & 3 to 448 MVA	490	Middletown 345-138 kV	transformer	1	345	138	31-May-04	\$125,000	Planned
LGEE	305	Middletown 345/138 transformers 1, 2, & 3 to 448 MVA	491	Middletown 345-138 kV	transformer	2	345	138	31-May-04	\$125,000	Planned
LGEE	305	Middletown 345/138 transformers 1, 2, & 3 to 448 MVA	492	Middletown 345-138 kV	transformer	3	345	138	31-May-04	\$125,000	Planned
LGEE	310	Northside - Beargrass - Jeffersonville Jct. (CIN) 138 kV lines	489	Beargrass	Jeffersonville Jct. (CIN)	1	138		31-May-04	\$52,000	Planned
LGEE	310	Northside - Beargrass - Jeffersonville Jct. (CIN) 138 kV lines	494	Northside	Beargrass	1	138		31-May-04	\$52,000	Planned
LGEE	310	Northside - Beargrass - Jeffersonville Jct. (CIN) 138 kV lines	495	Northside	Jeffersonville Jct. (CIN)	1	138		31-May-04	\$52,000	Planned
LGEE	313	Middletown - Buckner 345 ckt 1, Sum rate 1066	493	Middletown	Buckner	1	345		31-May-04	\$5,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
METC	120	Farr Road - Tippy - Hodenpyl 138 line	534	Farr Road J.	Tippy	1	138		1-May-05	\$3,150,000	Planned
METC	120	Farr Road - Tippy - Hodenpyl 138 line	535	Tippy	Hodenpyl	1	138		1-May-06	\$2,200,000	Planned
METC	227	METC - Gaylord 138 ckt 1, Sum rate	631	METC	Gaylord	1	138		1-Oct-04	\$215,000	Planned
METC	229	METC - Barnum Creek 138 ckt 1, Sum rate 190	345	METC	Barnum Creek	1	138		1-Dec-04	\$252,000	Planned
METC	230	METC - Cheesman 138 ckt 1, Sum rate	632	METC	Cheesman	1	138		1-Dec-04	\$80,000	Planned
METC	231	Cobb - Brickyard 138 ckt 1, Sum rate	346	Cobb	Brickyard J.	1	138		1-May-05	\$905,000	Planned
METC	232	Pere Marquette - Stronach 138 ckt 1, Sum rate	518	Pere Marquette	Stronach	1	138		1-May-05	\$4,200,000	Planned
METC	234	METC - Ransom 138 ckt 1, Sum rate 386	342	METC	Ransom	1	138		1-Jun-05	\$1,100,000	Planned
METC	236	METC - Bayberry 138 ckt 1, Sum rate	519	METC	Bayberry	1	138		31-Dec-05	\$107,000	Planned
METC	237	METC - Titus 138 ckt 1, Sum rate	634	METC	Titus	1	138		1-Jun-05	\$160,000	Planned
METC	238	METC - Vernon 138 ckt 1, Sum rate	635	METC	Vernon/Bard	1	138		1-Jun-05	\$184,000	Planned
METC	239	METC - Withey Lake 138 ckt 1, Sum rate	636	METC	Withey Lake	1	138		1-Jun-05	\$184,000	Planned
METC	240	Garfiled - Hemphill 138 ckt 1, Sum rate 521	336	Garfiled	Hemphill	1	138		1-Jun-08	\$1,900,000	Planned
METC	476	Alma 138 kV 7.2 MVAR capacitor additions	3076	Alma	Capacitor addition		138		1-Jun-05	\$50,000	Planned
METC	477	Batavia 138 kV 7.2 MVAR capacitor additions	3077	Batavia	Capacitor addition		138		1-Jun-05	\$50,000	Planned
METC	482	Tittabawassee 5 Ohm Reactors (add)	1315	Tittabawsee Reactors		1&2	138		1-May-05	\$1,200,000	Planned
METC	484	Black River 138 kV 26 MVAR capacitor addition	2046	Black River	Capacitors		138		1-Jun-05	\$800,000	Planned
METC	485	Gallagher 138 kV 36 MVAR capacitor	3078	Gallagher	Capacitors		138		1-Jun-05	\$900,000	Planned
METC	490	Croton -Felch Road 138 kV (increase capacity)	1318	Croton (switches)	Felch Road	1	138		1-Jun-05	\$180,000	Planned
METC	634	Gaylord 138 - Gaylord 138 bus switches 138 ckt # 1	1313	Gaylord 138	Gaylord 138 bus switches	1	138		31-Dec-04	\$110,000	Planned
METC	635	METC - West Fenton 138 ckt # 1	1314	METC	West Fenton	1	138		1-May-05	\$20,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
METC	637	Hemphill - Hunters Creek 138 ckt # 1	1319	Hemphill	Hunters Creek (ITC)	1	120		1-Jun-05	\$220,000	Planned
METC	638	Hemphill 138 - Hemphill bus switches 138 ckt # 1	1320	Hemphill 138	Hemphill bus switches	1	138		1-Jun-05	\$50,000	Planned
METC	639	METC - Packard 138 ckt # 1	1321	METC	Packard	1	138		1-Jun-05	\$100,000	Planned
METC	640	METC - David 138 ckt # 1	1323	METC	David	1	138		1-Nov-05	\$170,000	Planned
METC	644	METC - Rogue River 138 ckt # 1	1327	METC	Rogue River	1	138		1-Jun-06	\$160,000	Planned
METC	740	METC 345 kV line relaying and communications upgrade project	1434	Gallagher	Tittabawassee	1	345		31-Dec-05	\$1,000,000	Planned
METC	740	METC 345 kV line relaying and communications upgrade project	1435	Keystone	Livingston	1	345		31-Dec-05	\$1,000,000	Planned
METC	740	METC 345 kV line relaying and communications upgrade project	1436	Livingston	Gallagher	1	345		31-Dec-05	\$794,000	Planned
METC	769	Tittabawassee 345 kV Breaker Replacements 3000 Amp	3074	Tittabawassee	Breaker Replacements		345		31-Dec-04	\$500,000	Planned
METC	770	Hampton 345 kV Breaker Replacement 3000 Amp	3075	Hampton	Breaker Replacement		345		1-Apr-05	\$500,000	Planned
METC	771	Hemphill, Thetford & Tallmadge 138 kV Breaker Replacements 40 KA	3079	Hemphill, Thetford & Tallmadge	Breaker Replacements		138		1-Jun-05	\$1,400,000	Planned
METC	772	Tallmadge 345 kV Transformer Bushing Replacements TBD	3080	Tallmadge	Transformer Bushing Replacements		345		1-Jun-05	\$258,000	Planned
METC	773	Tittabawassee & Kenoa 345 kV Breaker Replacements 3000 Amp	3081	Tittabawassee & Kenoa	Breaker Replacements		345		31-Dec-05	\$1,600,000	Planned
NIPS	118	Hiple 345 kV interconnection (NIPS-AEP) to East Elkhart-Collingwood 345	382	Hiple	East Elkhart	1	345		1-Apr-04	\$4,000,000	Planned
NIPS	118	Hiple 345 kV interconnection (NIPS-AEP) to East Elkhart-Collingwood 345	383	Hiple	Collingwood	1	345		1-Apr-04	\$4,000,000	Planned
NIPS	437	Hiple 138, 60MVAR Capacitor bank (2 steps of 30MVAR)	2070	Hiple	Capacitor bank (2 steps of 30MVAR)		138		1-Nov-04	\$1,400,000	Planned
NIPS	438	Leesburg 138, 84MVAR Capacitor bank (2 steps of 42MVAR)	2071	Leesburg	Capacitor bank (2 steps of 42MVAR)		138		1-Nov-04	\$1,600,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
NIPS	467	Northeast-Kline 138	1278	Northeast	Kline	1	138		1-Jun-05	\$211,000	Planned
NIPS	613	Dune Acres - Michigan City 138 kV double circuit. Upgrade terminal equipment & 1 mile reconductor	1280	Dune Acres	Michigan City	1	138		1-Feb-05	\$167,000	Planned
NIPS	613	Dune Acres - Michigan City 138 kV double circuit. Upgrade terminal equipment & 1 mile reconductor	1281	Dune Acres	Michigan City	2	138		1-Feb-05	\$167,000	Planned
NIPS	757	Dune Acres 138 kV 100 MVAR Capacitor bank (1 step)	3034	Dune Acres	Capacitor bank (1 step)		138		1-Jun-06	\$1,034,000	Planned
NIPS	758	Miller 138 kV 100 MVAR Capacitor bank (1 step)	3035	Miller	Capacitor bank (1 step)		138		1-Jun-06	\$990,500	Planned
OTP/MPC	263	Wilton 230 - 230/115 ckt 2, Sum rate 187	238	Wilton 230-115 kV	transformer	2	230	115	1-Jun-05	\$4,073,336	Planned
OTP/MPC/XEL	46	Maple River 230/115 TX # 2 187 MVA, Maple River 345/230 TX #3 336 MVA, Winger 230-115 TX 187 MVA	233	Maple River 230-115 kV	transformer	2	230	115	1-Jun-05	\$4,684,476	Planned
SIPC	81	Marion - CarrierMills 161 ckt 1, Sum rate 286	60	Marion	CarrierMills	1	161		1-Jun-06	\$7,083,000	Planned
Vectren	180	A B Brown - Henderson (add 9 ohm reactor) 138 and A B Brown (SIGE) - Northwest(SIGE) 138 ckt 2	380	A B Brown (SIGE)	Northwest (SIGE)	2	138		1-Jun-06	\$2,650,000	Planned
Vectren	677	Duff (SIGE) - Dubois (SIGE) 138 ckt # 2	1366	Duff (SIGE)	Dubois (SIGE)	2	138		1-Jun-06	\$2,150,000	Planned
Vectren	781	Heidelberg 138 kV 31 MVAR Capacitor bank	3089	Heidelberg	Capacitor bank		138		31-May-05	\$500,000	Planned
Vectren	782	Angel Mounds 138 kV 31 MVAR Capacitor bank	3090	Angel Mounds	Capacitor bank		138		31-May-05	\$550,000	Planned
XEL	56	Chisago - Lawrence Creek 115, Lawrence Creek - St Croix Falls - Apple River 161	301	Chisago	Lindstrom	1	115		31-Dec-07	\$10,100,000	Planned
XEL	56	Chisago - Lawrence Creek 115, Lawrence Creek - St Croix Falls - Apple River 161	303	Lawrence Creek	St Croix Falls	1	161		31-Dec-07	\$9,080,000	Planned
XEL	56	Chisago - Lawrence Creek 115, Lawrence Creek - St Croix Falls - Apple River 161	304	Lawrence Creek 161-115 kV	transformer	1	161	115	31-Dec-07	\$6,000,000	Planned
XEL	56	Chisago - Lawrence Creek 115, Lawrence Creek - St Croix Falls - Apple River 161	306	Lindstrom	Shafer	1	115		31-Dec-07	\$5,800,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
XEL	56	Chisago - Lawrence Creek 115, Lawrence Creek - St Croix Falls - Apple River 161	310	Shafer	Lawrence Creek	1	115		31-Dec-07	\$3,500,000	Planned
XEL	56	Chisago - Lawrence Creek 115, Lawrence Creek - St Croix Falls - Apple River 161	312	St Croix Falls	Apple River	1	161		31-Dec-07	\$23,790,000	Planned
XEL	257	Aldrich - St. Louis Park 115 ckt 1, Sum rate 310	249	Aldrich	St. Louis Park	1	115		1-Jun-06	\$975,391	Planned
XEL	262	Red Rock - Rogers Lake 115 ckt 2, Sum rate 310	250	Red Rock	Rogers Lake	2	115		15-Dec-04	\$1,137,956	Planned
XEL	265	Glencoe - McLeod 115 ckt 1, Sum rate 300	561	Glencoe	McLeod	1	115		1-May-05	\$4,282,860	Planned
XEL	267	Lawrence - Minnehaha 115 ckt 1, Sum rate 310	563	Lawrence	Minnehaha	1	115		1-Jun-06	\$829,667	Planned
XEL	268	Minnehaha - Lincoln County 115 ckt 1, Sum rate 310	564	Minnehaha	Lincoln County	1	115		1-Jun-06	\$925,398	Planned
XEL	269	Prairie Island - Red Rock 345 ckt 2, Sum rate 1198	1137	Prairie Island	Red Rock	2	345		1-Jun-06	\$9,110,072	Planned
XEL	276	Inver Hills - Koch 115 ckt 2, Sum rate 310	576	Inver Hills	Koch	2	115		1-Jun-06	\$2,211,655	Planned
XEL	366	Sherco - Monticello 115 and Sherco - St Cloud 115 kV lines, Sherco 345/115 transformer	569	I94 Industrial Park tap	Salida Crossing	1	115		1-Jun-06	\$2,432,170	Planned
XEL	366	Sherco - Monticello 115 and Sherco - St Cloud 115 kV lines, Sherco 345/115 transformer	571	Salida Crossing	Sherco	1	115		1-Jun-06	\$765,368	Planned
XEL	366	Sherco - Monticello 115 and Sherco - St Cloud 115 kV lines, Sherco 345/115 transformer	572	Sherco	Monticello	1	115		1-Jun-06	\$714,344	Planned
XEL	366	Sherco - Monticello 115 and Sherco - St Cloud 115 kV lines, Sherco 345/115 transformer	573	Sherco 345-115 kV	transformer	1	345	115	1-Jun-06	\$3,001,443	Planned
XEL	366	Sherco - Monticello 115 and Sherco - St Cloud 115 kV lines, Sherco 345/115 transformer	574	St Cloud	I94 Industrial Park tap	1	115		1-Jun-06	\$850,409	Planned
XEL	417	Westgate 115, 80 MVAR Capacitor	2038	Westgate	Capacitor		115		1-Jun-08	\$1,500,000	Planned
XEL	561	Granite City 115 kV 2x40 MVAR capacitors	2086	Granite City	Capacitor		115		1-Jun-05	\$2,500,000	Planned
XEL	666	Maple River - Red River 115 ckt # 1	1354	Maple River	Red River	1	115		1-Jun-05	\$800,000	Planned
XEL	671	Oakdale - Tanners Lake 115 ckt # 1	1359	Oakdale	Tanners Lake	1	115		1-Jun-06	\$800,000	Planned
XEL	672	Wilmarth - Eastwood 115 ckt # 1	1360	Wilmarth	Eastwood	1	115		1-Jun-06	\$1,300,000	Planned

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ATC LLC	11	Rhineland 115 kV Loop Short-Term Solution	2007	Cross Country	Capacitor bank		138		1-May-04	\$1,044,808	Proposed
ATC LLC	22	Femrite - Sprecher 138 (new), Sprecher - Reiner 138 (conversion), Reiner - Sycamore 138 (conversion),	2011	Kegonsa	Capacitor bank		138		1-May-04	\$1,044,808	Proposed
ATC LLC	407	Loch Mirror (Birchwood) 138, 24 MVAR Capacitor bank	2012	Loch Mirror (Birchwood)	Capacitor bank		138		1-May-04	\$1,034,183	Proposed
ATC LLC	404	Clear Lake 115, 6 MVA Facts (D-SMES)	2006	Clear Lake	Facts (D-SMES)		115		1-Jul-04	\$1,900,000	Proposed
ATC LLC	431	Moorland 138, 54 MVAR Capacitor bank	2060	Moorland	Capacitor bank		138		1-Jun-05	\$750,000	Proposed
ATC LLC	678	North Appleton - Werner West (Uprate) 345 kV	1367	North Appleton	Werner West (Uprate)		345		1-Dec-05	\$2	Proposed
ATC LLC	679	Werner West - Rocky Run (Uprate) 345 kV	1368	Werner West	Rocky Run (Uprate)		345		1-Dec-05	\$2	Proposed
ATC LLC	168	Werner West transformer - 345/138 ckt , Sum rate 500	436	Werner West	transformer		345	138	1-May-06	\$13,500,000	Proposed
ATC LLC	1	Arrowhead - Gardner Park 345 kV line	1453	Cornell (4.5 ohm reactor)	Fiebrantz		138		1-Jun-06	\$0	Proposed
ATC LLC	175	Ellinwood - Sunset Point 138 ckt , Sum rate	463	Ellinwood	Sunset Point		138		1-Jun-06	\$2,500,000	Proposed
ATC LLC	430	Burlington 138, 50 MVAR Capacitor bank	2059	Burlington	Capacitor bank		138		1-Jun-06	\$1,000,000	Proposed
ATC LLC	433	Wautoma 138, 32.6 MVAR Capacitor bank	2062	Wautoma	Capacitor bank		138		1-Jun-06	\$500,000	Proposed
ATC LLC	446	Butler Ridge 138 kV, 36 MVAR Capacitor bank	2082	Butler Ridge (new generation site near Hartford)	Capacitor bank		138		1-Jun-06	\$750,000	Proposed
ATC LLC	432	Antigo (was Hogan St) 115, 13.6 MVAR Capacitor bank	2061	Antigo (was Hogan St)	Capacitor bank		115		1-Jun-06	\$1,820,000	Proposed
CILCO	142	R S Wallace - Substation (sub relocation) 138 ckt 1, Sum rate	391	R S Wallace	Substation (sub relocation)	1	138		1-Jun-06	\$5,082,700	Planned
CIN	618	Beckjord 138	1290	Beckjord	(rebuild substation)		138		1-Jun-06	\$1,738,266	Proposed
CIN	625	Pierce/Beckjord 345/138 kV - 345/138 ckt # C	1301	Pierce/Beckjord 345/138 kV	transformer	C	345	138	1-Dec-06	\$1,600,000	Proposed

Reporting Source	Pro-ID	Project Description	Fac-ID	From Sub	To Sub	Ckt	Line or HS kV	LS kV	Expected ISD	Estimated Cost	MTEP 05 Status
ITC	528	Placid 120 kV capacitor	2088	Placid	Capacitor Bank		120		31-May-05	\$425,000	Proposed
LGEE	314	Lake Reba Tap - JK Smith (EKPC) 138 ckt 1, Sum rate 251	161	Lake Reba Tap	JK Smith (EKPC)	1	138		30-Nov-05	\$5,000	Proposed
LGEE	315	Plainview tap - Middletown - Bluegrass Parkway 138 kV line	620	Middletown	Bluegrass Parkway	1	138		31-Dec-05	\$3,320,000	Proposed
METC	494	Battle Creek - Verona 138kV #1 & #2 Line, Remove Sag Limit	1317	Battle Creek	Verona(Sag)	2	138		1-Jun-05	\$50,000	Proposed
METC	497	Tallmadge - Wealthy Street 138 kV line #2	1322	Tallmadge	Wealthy	2	138		1-Jun-05	\$1,000	Proposed
METC	636	Amber 1 - Amber 2 138 ckt # 1	1316	Amber 1	Amber 2	1	138		1-Jun-05	\$1,000	Proposed
METC	641	Redwood - Oceana 138 ckt # 1	1324	Redwood	Oceana	1	138		1-Dec-05	\$2,000,000	Proposed
METC	422	Various 138, 200MVAR Capacitors	2047	Various	Capacitors		138		1-Jun-06	\$2,000,000	Proposed
METC	642	Argenta - Hazelwood (Sag) 138 ckt # 1	1325	Argenta	Hazelwood(Sag)	1	138		1-Jun-06	\$50,000	Proposed
METC	643	Gaines - Thompson Road 138 ckt # 1	1326	Gaines	Thompson Road	1	138		1-Jun-06	\$500,000	Proposed
METC	774	Gaylord 138 kV 36 MVAR Capacitors	3082	Gaylord	Capacitors		138		1-Jun-06	\$900,000	Proposed
METC	775	Iosco 138 kV 18 MVAR Capacitors	3083	Iosco	Capacitors		138		1-Jun-06	\$800,000	Proposed
METC	741	METC 345 kV line relaying and communications upgrade project - Phase 2	1437	Argenta	Battle Creek	1	345		31-Dec-06	\$3,000,000	Proposed
METC	741	METC 345 kV line relaying and communications upgrade project - Phase 2	1438	Battle Creek	Oneida	1	345		31-Dec-06	\$3,000,000	Proposed
METC	741	METC 345 kV line relaying and communications upgrade project - Phase 2	1439	Argenta	Tompkins	1	345		31-Dec-06	\$2,415,000	Proposed
Vectren	436	Northeast 138, 60 MVAR Capacitor bank	2069	Northeast	Capacitor bank		138		31-May-05	\$550,000	Proposed
XEL	270	Champlin - Champlin Tap 115 ckt 1, Sum rate 310	1138	Champlin	Champlin Tap	1	115		1-Jun-06	\$382,923	Proposed
XEL	609	Long Lake - Woodbury 115 kV line	800	Long Lake	Oakdale (from Woodbury)	1	115		1-Jun-06	\$760,000	Proposed
XEL/WAPA	610	White - Buffalo Ridge 115 kV line & White 345/115 kV TX #2	646	White 345-115 kV	transformer	1	345	115	1-Jun-06	\$12,179,190	Proposed
XEL/WAPA	610	White - Buffalo Ridge 115 kV line & White 345/115 kV TX #2	645	White	Buffalo Ridge	1	115		1-Jun-06	\$10,178,228	Proposed

**Attachment FF-2
 LODF Table**

Sample Sub-Regional Allocations for 22 Facilities Based on LODF

		Prairie State Power Plant Transmission outlet	Chisago-AppleRiver Jefferson City 345/161	Jefferson-Loose Creek 345	Moreau-Apache Flats 161	Rosser-Silver 230, 2005	Callaway-Franks 345, 2006	Columbia-N Madison 138 kV converted to 345, 2006	Wagner-NW68th & Holdrege, 2008	BuffaloRidge Split Rock-Nobles Co 345 kV	BuffaloRidge Nobles-Lakefield 345 kV	BuffaloRidge NoblesCo 345-115	BuffaloRidge Buffalo-White 115	BuffaloRidge Chammb-Fenton 115	BuffaloRidge Fenton-Nobles 115	MillCrk-Hardin 345	Callaway-Franks 345	Stone Lake 345/161	Auburn N-Chatham 138	North Madison-Waunakee	Milan-Pioneer 120	Hilcrest-Eastwood 138 k
FE	202		0%	0%	0%					0%	0%	0%	0%	0%	0%						10%	0.0%
HE	207		0%	0%	0%					0%	0%	0%	0%	0%	0%	3%						0.0%
CIN	208		0%	0%	0%					0%	0%	0%	0%	0%	0%	14%						100.0%
VECT	210		0%	0%	0%					0%	0%	0%	0%	0%	0%	2%						0.0%
LGEE	211		0%	0%	0%					0%	0%	0%	0%	0%	0%	77%						0.0%
IPL	216		0%	0%	0%					0%	0%	0%	0%	0%	0%							0.0%
NIPS	217		0%	0%	0%					0%	0%	0%	0%	0%	0%							0.0%
METC	218		0%	0%	0%					0%	0%	0%	0%	0%	0%							0.0%
ITC	219		0%	0%	0%					0%	0%	0%	0%	0%	0%						90%	0.0%
ALTW	331		2%	0%	0%					23%	24%	6%	1%	6%	6%			2%				0.0%
CWLD	355		0%	0%	1%					0%	0%	0%	0%	0%	0%							0.0%
AMRN	356	74%	98%	98%	99%		97%			0%	0%	0%	0%	0%	0%	3%	97%		45%			0.0%
IP	357	26%	1%	1%	0%		3%			0%	0%	0%	0%	0%	0%	1%	3%		24%			0.0%
CILCO	359		0%	0%	0%					0%	0%	0%	0%	0%	0%				14%			0.0%
CWLP	360		0%	0%	0%					0%	0%	0%	0%	0%	0%				17%			0.0%
SIPC	361		0%	0%	0%					0%	0%	0%	0%	0%	0%							0.0%
ATC	364		5%	0%	0%			100%		1%	1%	0%	0%	0%	0%			31%		100%		0.0%
NSP	600		85%	0%	0%	100%				70%	66%	87%	92%	87%	87%			47%				0.0%
MP	608		7%	0%	0%					2%	2%	2%	0%	2%	2%			19%				0.0%
GRE	618		1%	0%	0%					1%	1%	1%	1%	1%	1%			1%				0.0%
OTP	626		0%	0%	0%					4%	5%	3%	6%	3%	3%							0.0%
LES	650		0%	0%	0%				100%	0%	0%	0%	0%	0%	0%							0.0%
MDU	661		0%	0%	0%					0%	0%	0%	0%	0%	0%							0.0%

ATTACHMENT FF-3

