Transmission Planning Procedures

On February 16, 2007, the Federal Energy Regulatory Commission ("FERC") issued Order No. 890, *Preventing Undue Discrimination and Preference in Transmission Service*. Pursuant to the terms of Order No. 890, E.ON U.S., LLC, on behalf of its transmission-owning operating companies, Louisville Gas and Electric Company ("LG&E") and Kentucky Utilities Company ("KU"), has drafted the following procedures in conformance with Order No. 890's transmission planning principles.

I. Coordination

FERC requires that transmission providers meet with and allow stakeholders to have input on the transmission planning process. FERC does not mandate the number of or scope of meetings with stakeholders, so long as the coordination process allows stakeholders an opportunity to comment meaningfully at the early stages of the transmission plan's development. E.ON has developed the plan so that stakeholders will be able to provide input into the next years' plan as that plan is developed from the initial stages of development, and encourages stakeholders to be involved early in the process, as opposed to commenting only on the final plan.

 Describe whether any committees or meeting structures (formal or informal) will be used to conduct planning activities.

The E.ON U.S. coordination plan will include the formation of a Stakeholder Planning Committee ("SPC"), which will act as a standing committee. Membership on the SPC will be open to all Eligible Customers, as such term is defined in the OATT. Any Eligible Customer that wants to participate in the SPC must designate a representative by sending such information to E.ON U.S. (and providing contact information for the representative) within 30 days of Commission approval of the E.ON U.S. coordination plan. After this 30 day start-up period, an Eligible Customer may join the SPC by designating a representative (and providing contact information for the representative) and sending a notice to E.ON U.S. and the Chair of the SPC.

E.ON U.S. shall be responsible for coordinating the first meeting of the SPC within 120 days of approval of the E.ON U.S. coordination plan. Afterwards, the SPC shall appoint a Chair to lead the SPC calls and coordinate any teleconferences or meetings. The Chair shall rotate annually among the members of the SPC. The SPC shall hold conference calls monthly, or quarterly, depending upon the workload at the time, to provide input to the Transmission Owner regarding planning issues. If required, the Chair may call meetings on a more frequent basis.

The E.ON U.S. coordination plan also involves a combination of semi-annual stakeholder meetings to discuss the annual transmission expansion plan, as well as opportunities for stakeholders to provide written comments early in the process. E.ON U.S. will conduct semi-annual transmission planning meetings, in conjunction with the semi-annual stakeholder meetings. Transmission planning meetings shall be held in the spring and the fall of each year. At the spring meeting, the transmission expansion plan for the next year will be presented, and

the ITO will issue a request for information on what projects, expansions, or other considerations should be taken into account in developing the next year's transmission plan.

Stakeholders will have thirty days from the spring 2008 meeting in which to transmit their suggestions for the next year's transmission plan. To the extent feasible, the Transmission Owner will incorporate the comments submitted at, or no later than 30 days after, the spring stakeholder meeting into the annual transmission plan.

Stakeholders will be presented with a draft of the next year's transmission plan at the stakeholder meeting held in the fall. Stakeholders will have an opportunity to discuss the draft transmission plan at the stakeholder meeting, and may submit written comments regarding the draft transmission plan for up to 30 days following the fall stakeholder meeting.

Additionally, stakeholder input is not restricted to these events but can be sent to the Manager of Transmission at any time. Written comments are preferred and may be sent via e-mail. Comments received outside the semi-annual meetings and SPC meetings will be made available to other stakeholders via OASIS.

• Describe what role the transmission provider will play in coordinating the activities of the planning committees or meetings, as relevant.

The Transmission Owner is the entity responsible for drafting the annual transmission plan, which is then reviewed and revised or approved by the ITO. The SPC will be responsible for coordinating the monthly and quarterly conference calls and will provide input to the TO on planning issues at that time. The ITO will be responsible for coordinating the semi-annual stakeholder meetings, and the Transmission Owner will attend to present the annual transmission plan, or draft of the annual transmission plan as appropriate, and will take stakeholder comments at that time. Stakeholders also may address their written comments to the Transmission Owner, which the Transmission Owner will take into account when drafting or revising the annual transmission expansion plan.

• Describe any existing processes, and the changes thereto, that will be used to satisfy the requirements of Order No. 890.

The ITO already holds an annual stakeholder meeting to address customer and other stakeholder issues. Transmission expansion planning has been added to this process, and an additional meeting added to the yearly calendar. Additionally, the scope of stakeholders invited to participate in the meetings will be expanded for transmission planning meetings to include neighboring transmission systems, and state commission representatives, as well as customers.

Describe the frequency of meetings to be held and other planning-related communications.

Meetings will be held in the spring and in the fall. At the spring meeting, the Transmission Owner will present the final version of the annual transmission expansion plan, and will receive comments/suggestions for the coming year. Stakeholders may submit written comments for up to 30 days after the spring meeting. At the fall meeting, a draft of the next year's transmission expansion plan, and stakeholders may again comment either at the meeting or up to 30 days after the fall meeting. The final draft of the transmission expansion plan is presented to the ITO in January, for final review and approval. The draft submitted to the ITO will reflect consideration of those comments received after the fall stakeholder meeting.

Describe the procedures used to notice meetings and other planning-related communications.

Notice of the monthly or quarterly teleconference meetings of the SPC will be sent out by the Transmission Owner for the first meeting to a list of Eligible Customers based on those that inform the Transmission Owner of their interest in participating in the SPC. Afterward, the Chair of the SPC will be in charge of coordinating and notifying the SPC members of the conference calls. A notice of the semi-annual meetings will be placed on OASIS, as well as the ITO's website. Customers will receive an e-mail notifying them of the meeting, and other stakeholders (neighboring transmission systems, state commission representatives) will be invited by the Transmission Owner. Meetings will take place in person in Louisville, Kentucky. If participants are unable to attend in person, a teleconference line will be made available.

 Any significant planning developments or events will trigger a notice by the TO to the ITO and a posting on OASIS to notify the SPC and any other Eligible customer under the OATT of the opportunity to provide input during the planning process with regard to the significant development or event.

II. Openness

• Describe who the participants will be in the planning process, including expected participants for any groups or committees used.

The transmission planning portion of the stakeholder meetings will be open to current Transmission and Network Customers, representatives from the Kentucky Public Service Commission, and utilities with whom the Transmission Owner's transmission system is interconnected. Other Eligible Customers, as defined in the OATT, will be able to attend the transmission planning portion of the stakeholder meeting provided they sign the Confidentiality Agreement, attached hereto as Exhibit 1. E.ON U.S. reserves the right to limit participation for security reasons. Entities attending the transmission planning portion of the stakeholder meetings will be invited to provide their comments, concerns, or relevant study data at the beginning of the annual transmission expansion plan process.

• Describe what data is confidential/CEII, the criteria to be used to identify such data, and the eligibility criteria and process for obtaining access.

Pursuant to FERC regulations, the Transmission Owner and the ITO will identify as Critical Energy Infrastructure Information ("CEII") specific engineering, vulnerability or detailed design information about proposed or existing critical infrastructure that:

(i) Relates details about the production, generation, transportation, transmission, or distribution of energy;

(ii) Could be useful to a person planning an attack on critical infrastructure;

- (iii) Is exempt from mandatory disclosure under FOIA; and
- (iv) Does not simply give the general location of the critical infrastructure.¹

This definition includes, but is not limited to, the annual transmission expansion plan and all drafts thereof. In order to participate in the transmission planning portion of the stakeholder meetings, or to gain access to the transmission planning links on the Transmission Owner's OASIS, the entity requesting participation must execute a confidentiality agreement, the form of which is attached hereto as Exhibit 1. Comments on this form agreement received from stakeholders that attended the first annual SPP planning meeting in May 2007 where the strawman proposal for attachment K was discussed have been incorporated in the current draft. Additionally, pursuant to Section 6.4 of the confidentiality agreement, each employee, expert, agent or representative of the stakeholder who is to receive access to the confidential information must also fill out a non-disclosure certificate, attached to the confidentiality agreement as Exhibit A. Once a confidentiality agreement and non-disclosure certificate(s) is executed, the ITO will contact the participating entity regarding the digital certificates, passwords, or key encryption required to access the transmission planning portion of the Transmission Owner's OASIS.

III. Transparency

• Describe the timelines/dates for data exchange, studies.

Under the terms of the Network Operating Agreement ("NOA"), Network Customers are required to provide by September 1 of each year, Network Resource availability forecast (e.g., all planned resource outages, including off-line and on-line dates) for the following year. The primary focus for transmission planning on the Transmission System is contracted, long-term firm usage. The Transmission Owner invites firm Point-to-Point customers to provide information regarding their usage that will exceed five years. This information should also be provided on September 1 of each year.

The Transmission Owner commences its transmission expansion planning process considering any input from monthly and quarterly stakeholder calls and the information provided pursuant to the NOA, and a preliminary draft of the transmission expansion plan will be prepared by the Transmission Owner, and distributed to stakeholders who have executed a confidentiality agreement at the fall stakeholder meeting. The Transmission Owner will take the oral comments provided by stakeholders at the fall meeting, and any other written comments provided within 30 days after the fall meeting, and incorporate these comments into the final draft of the transmission expansion plan. The final draft is presented to the ITO for review and approval in January. The final version of the transmission expansion plan is presented to stakeholders at the spring stakeholder meeting.

Timelines/dates for data exchange:

See Flowchart attached as Exhibit 2.

18 C.F.R. § 388.113 (c)(1).

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 Describe the transmission planning methodology and protocols used to develop transmission plans.

The planning criteria is available at: <u>http://sppoasis.spp.org/oasis/lgee</u> under the heading "E.ON US Transmission Planning Guidelines." The current version available on OASIS has been downloaded and attached as Exhibit 3 for illustrative purposes.

The Planning Guidelines are applied to power flow models containing all of the data collected from customers to identify overloaded elements. Potential solutions are identified, and a least cost revenue requirements analysis is then applied to select solutions to resolve these problems.

• Describe the procedure for communicating with customers and other stakeholders regarding the basic criteria, assumptions, and data that underlie the transmission provider's system plan.

The Transmission System Planning Guidelines are to be made available on the OASIS. These guidelines outline the basic criteria, assumptions, and data that underlie transmission planning for the Transmission System, including:

- Adherence to NERC and SERC reliability standards;
- Treatment of native load;
- Transmission contingencies and measurements;
- Thermal and voltage limits;
- Minimum operating voltage at Generators; and
- Modeling considerations.

These Transmission System Planning Guidelines have been designed to allow others to replicate the transmission modeling process. All of the underlying data and assumptions used in developing the transmission plan will be available on the OASIS. This information will be available to any stakeholder who has completed a confidentiality agreement. Additionally, E.ON U.S. uses GE's PSLF ("Positive Sequence Load Flow") software in the planning process.

• Describe how, and when, transmission plans and other planning information will be presented to customers and other stakeholders.

The annual transmission expansion plan will be presented at the spring stakeholder meeting. At that meeting, the transmission owner will walk through a power-point presentation describing the system's needs, underlying assumptions, applicable planning criteria, and methodology used to determine the need, as well as the results of the transmission plan itself. If stakeholders have additional questions regarding the transmission expansion plan, they may contact the Manager of Transmission Strategy Planning. After the transmission expansion plan is presented, stakeholders have an opportunity to provide input for the next year's transmission expansion plan. At the fall meeting, stakeholders have an opportunity to review and comment on the next year's draft plan.

• Describe the procedure for sharing information regarding the status of upgrades identified in the transmission plan.

Via the transmission planning portion of OASIS, semi-annual updates on the status of all transmission expansion projects, including projected completion dates, will be posted. If stakeholders have questions for the monthly meetings, they may submit such inquiries to the Manager of Transmission Strategy and Planning via the ITO.

IV. Information Exchange

- Describe the obligations and methods for customers to submit data to the transmission provider.
 - Generators ratings, planned additions or upgrades (including status and expected in-service date), planned retirements, and environmental restrictions.
 - Demand response resources existing and planned demand resources and their impacts on demand and peak demand.
 - Network customers forecast information for load and resource requirements over the planning horizon and identification of demand response reductions.

Under the terms of the Network Operating Agreement ("NOA"), Network Customers are required to provide by September 1 of each year, Network Resource availability forecast (e.g., all planned resource outages, including off-line and on-line dates) for the following year. Such forecasts are required to be made in accordance with Good Utility Practice. The Network Customer must inform the Transmission Owner, in a timely manner, of any changes to the Network Customer's Network Resource availability forecast. In addition to the information required under the NOA, for the purposes of transmission planning, Network Customers will also be required to provide, on September 1 of each year, their load forecasts for the next ten years (the planning horizon). Additionally, Network Customers will also be required to update these load forecasts to the extent that they change during the year.

> Point-to-point transmission customers – projections of need for service over the planning horizon, including transmission capacity, duration, and receipt and delivery points.

The primary focus for transmission planning on the Transmission System is contracted, long-term firm usage. The Transmission Owner invites long-term firm Point-to-Point customers to provide information regarding their usage. This information should also be provided on September 1 of each year.

 Describe the schedule and procedures for submission of information by transmission customers.

Information to be used by the Transmission Owner in drafting the transmission expansion

plan must be submitted by September 1 of each year. This information shall be provided to the Transmission Owner in PSLF Format or in a spreadsheet via e-mail or on CD-ROM via Federal Express to the Manager of Transmission Strategy Planning. Transmission customers should provide the Transmission Owner with timely written notice of material changes in any information previously provided relating to its load, its resources, or other aspects of its facilities or operations affecting the transmission provider's ability to provide service.

V. Comparability

For the purposes of transmission planning, all Network Customers, including the Transmission Owner's native load, will be treated comparably. Where demand resources are able to meet the same criteria as generation resources as those criteria are specified in the business practices, demand and generation resources will be treated comparably for transmission planning purposes. The same criteria will be applied to the same types of projects, and addressed on a first-come, first-served basis to ensure that the Transmission Owner's interests do not take precedence over those of their similarly situated customers.

VI. Dispute Resolution

• Describe the process(es) that will be used to resolve planning-related disputes. Describe the issues, procedural and substantive, that will be addressed through a particular dispute resolution process.

Any dispute, claim or controversy amongst the Transmission Owner, the ITO and/or a Transmission or Network Customer regarding application of, or results from, these Transmission Planning Procedures (each a "Dispute") shall be resolved in accordance with the procedures set forth in this Section VI. For the avoidance of doubt, any dispute between the ITO and the Transmission Owner shall be resolved pursuant to the dispute resolution provisions of the ITO Agreement.

1. Notice of Dispute. In the event of a Dispute under this Section VI, any party to the Dispute may provide written notice to the other parties to the Dispute, including a description of the nature of the Dispute.

2. Dispute Resolution by Representatives. The parties to the Dispute shall first refer the Dispute to their respective representatives who shall negotiate in good faith to resolve the Dispute.

3. Dispute Resolution by Executive Management Representatives. If the Dispute is not resolved within fifteen (15) days of being referred to the disputing parties' representatives pursuant to subsection 2 of this Section VI, then each party shall have five (5) days to appoint an executive management representative who shall negotiate in good faith to resolve the Dispute.

4. Dispute Resolution by Mediation. If the parties' executive management representatives are unable to resolve the Dispute within thirty (30) days of their appointment, the parties shall proceed in good faith to submit the matter to a mediator mutually acceptable to the disputing

parties. The parties will share equally in the cost of such mediation, which will be conducted in accordance with the Commercial Mediation Rules of the American Arbitration Association.

5. Arbitration. If the parties are unable to resolve the Dispute within thirty (30) days after the appointment of a mediator pursuant to subsection 4 of this Section VI, then the Dispute may be filed as a complaint at FERC, or may be resolved according to the provisions for arbitration and any other remedies as outlined in this subsection 5.

a. Choice of Arbitrator(s). Any arbitration initiated under subsection 5 shall be conducted before a single neutral arbitrator appointed by the disputing parties. If the disputing parties fail to agree upon a single arbitrator within ten (10) days of the referral of the Dispute to arbitration, each disputing party shall choose one arbitrator who shall sit on a three-member arbitration panel. The arbitrator(s) shall provide each of the disputing parties an opportunity to be heard and, except as otherwise provided herein, shall generally conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association.

b. Arbitration Decisions. Unless otherwise agreed, the arbitrator(s) shall render a decision within ninety (90) days of appointment and shall notify the disputing parties in writing of such decision and the reasons therefore. The decision of the arbitrator(s) shall be final and binding upon the disputing parties, and judgment on the award may be entered in any court having jurisdiction; provided, to the extent the final decision of the arbitrator(s) affects jurisdictional rates, terms and conditions of service or facilities, it must also be filed with the FERC consistent with applicable law, and its effectiveness is contingent upon applicable filing and acceptance provisions of applicable law, if any. The decision of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act and/or the Administrative Dispute Resolution Act.

c. Costs. Each disputing party shall be responsible for its own costs incurred during the arbitration process and for the cost of the arbitrator chosen by the disputing party to sit on the three member panel or, if applicable, one third of the cost of the single arbitrator jointly chosen by the disputing parties.

VII. Regional Coordination

Identify the entities with which the transmission provider engages in regional planning and the responsibilities of each entity in the planning process.

E.ON U.S. has joined the Southeast Inter-Regional Participation Process announced by Southern Company in August. E.ON U.S. has been, and will continue to be, an active participant in this group. The goal of this process is to complement the planning processes developed by the Participating Transmission Providers. The process will provide a means for conducting stakeholder requested Economic Planning Studies across multiple interconnected systems. This process will build on the current inter-regional, reliability planning processes required by existing multi-party reliability agreements to allow for additional participation by stakeholders. As proposed, the Attachment K processes will be utilized to collect data, coordinate planning assumptions, and to address stakeholder requested Economic Planning Studies internal to their respective regions. The data and assumptions developed at the regional level will then be consolidated and used in the development of models for use in the Inter-Regional Process. In addition to Southern Company, other entities involved in this regional planning process are Duke Energy Carolinas, Entergy, Progress Energy Carolinas, the Tennessee Valley Authority, South Carolina Electric & Gas, Santee Cooper, Alabama Electric Cooperative, Dalton Utilities, Georgia Transmission, Municipal Electric Authority of Georgia and South Mississippi Electric Power Association.

E.ON also is involved in the TVA subregional planning process, or Central Public Power Partners group. E.ON is also participating in the MISO-PJM-TVA planning process, as an interested neighboring utility.

Describe the interaction between local planning and regional planning activities.

The Transmission Owner participates in the NERC Working Group annual Multiregional Modeling ("MMWG") process through SERC.

Additionally, the Transmission System is interconnected with the transmission systems of East Kentucky Power Cooperative, Inc. ("EKPC"), American Electric Power subsidiaries Kentucky Power Company, Appalachian Power Company, and Ohio Power Company (collectively, "AEP"), and Duke Energy Ohio and Duke Energy Indiana (collectively, "Duke Energy"). Under the terms of the wires-to-wires interconnection agreements with each of these entities, the Transmission Owner and each of EKPC, AEP, and Duke Energy provides input to NERC which develops models of the eastern interconnections.

Describe any inter-regional planning activities in which the transmission provider or regional entity participates.

- (See above).
- Describe the process for reviewing and coordinating the results of subregional, regional and inter-regional planning activities.

(See above).

• The forms of subregional or regional planning that occur today in the transmission provider's region;

(See above).

• The modifications or improvements to such processes that are being proposed as part of compliance with Order No. 890;

(See above).

• The reasons why a particular subregion or region was chosen to address compliance with Principle No. 7;

SERC is the reliability coordinator for E.ON U.S.

• The process by which the proposed subregional or regional planning processes can evolve over time as stakeholders gain experience with them (e.g., in undertaking additional studies as experience is gained with the initial studies; in formalizing stakeholder and state agency participation; in exchanging data, etc.).

As discussed above, E.ON U.S. supports the concept, and would be happy to participate in the proposed inter-regional SERC process recently announced, as discussed above.

VIII. Economic Planning

• Describe the scope of economic planning undertaken by the transmission provider on behalf of its native load and OATT customers.

Currently, there is no process to consider economic projects or the economic benefits of reliability projects. However, it is now envisioned that there will be a beneficial Economic Expansion Planning ("EP") subcommittee of the SPC.

- Economic planning studies will be open to participation by all Transmission and Network Customers. Economic planning studies may be used to evaluate network additions or upgrades that are not required to maintain NERC or SERC standards of reliability on the Transmission System, or to accommodate a request for transmission service, but that may alleviate significant and/or recurring congestion on some portion of the Transmission System. Economic planning studies may also be used to evaluate network additions or upgrades necessary to integrate new generation resources or load on the Transmission System.
- Describe the process by which economic planning studies can be requested and the procedures for publishing study-related information.

In January, the ITO will open a queue on the OASIS for the submission of requests for economic planning studies. The queue will remain open for sixty (60) days. In March, each Transmission or Network Customer, or other recognized stakeholder, may nominate one person to the EP Subcommittee. The EP Subcommittee will evaluate and prioritize the requests for economic studies, including clustering any study requests. The EP Subcommittee will establish its own rules of procedure. The EP Subcommittee shall present its results at the spring stakeholder meeting. The top five (5) requests identified by the EP Subcommittee shall be performed by the Transmission Owner by September 1 of each year, so that the results may be reviewed in conjunction with the transmission expansion planning process. The results will also

be posted on OASIS.

As discussed below, the costs for the top five (5) requests identified by the EP Subcommittee shall be included in the Transmission Owner's transmission rates. If a customer's request was not identified in the top five (5), then the customer may request that the Transmission Owner complete the study and assess the customer directly for the costs of the study.

The Transmission Owner shall perform the economic planning studies to the extent it has the data necessary to perform such a study. The Transmission Owner may solicit the requesting customer(s), or the Transmission Owner's Load Serving Entity for additional information and data necessary to perform the requested economic planning study. Such information and data will be subject to confidentiality provisions, and/or Standards of Conduct, as appropriate.

The performance of an economic planning study is for evaluation purposes only. The Transmission Owner is under no obligation to build any network additions or upgrades identified by the economic planning studies.

Describe the mechanism for recovering costs incurred to perform economic planning studies.

The costs for the top five (5) yearly economic planning studies shall be included in the Transmission Owner's transmission rates via a line-item added to E.ON's formula rate to collect these expense items. If a customer's request was not identified in the top five (5), then the customer may request that the Transmission Owner complete the study and assess the customer directly for the costs of the study.

IX. Cost Allocation

The following cost allocation criteria do not apply to network upgrades or additions necessary to maintain Transmission System reliability pursuant to NERC or SERC standards, nor do they apply to network upgrades or additions identified in conjunction with a transmission service request. No upgrades described in this Section IX will be built unless the Transmission Owner has a guarantee from the customers requesting such upgrade that they will pay for the upgrade and that the Transmission Owner will not be responsible for any of the costs of the upgrade.

1. <u>Economic Upgrades or Additions</u>. If a network upgrade or addition is identified in an economic planning study requested by a single customer, and if such addition or upgrade is then approved for construction, then the customer requesting the upgrade shall agree to pay for the costs of the upgrade. If the customer(s) fail to agree to pay the costs identified, then the request will be deemed withdrawn.

2. <u>Projects with Multiple Transmission Customers</u>. For a network upgrade or addition that is requested by more than one Transmission or Network Customer, the customers requesting the upgrade shall agree as to how the costs of the upgrade shall be allocated among the customer(s) identified in the economic planning study. If the customer(s) fail to reach an agreement, the ITO

shall allocate the costs of the upgrade on an equal, per capita basis to all customers requesting the upgrade.

X. Recovery of Planning Costs

- Describe the methodology used to recover costs associated with planning for reliability needs.
 - The LG&E/KU OATT does not separately track planning-related costs; but rather, all such reliability planning is included in the rates for jurisdictional transmission services. To the extent that E.ON U.S. is required to provide economic planning, and to the extent that E.ON U.S. is permitted to recover costs for such economic planning, E.ON U.S. proposes to book such expenses in a separate transmission operating subaccount and charge these costs to all entities that sign an economic expansion study agreement.
 - E.ON U.S. agrees to work with stakeholders and state agencies to determine if any other entities are in need of cost recovery for planning related activities and, if so, how those costs will be recovered.
 - To the extent that a regional planning organization is formed, E.ON U.S.'s costs associated with planning activities for that organization will be rolled into jurisdictional rates.

CONFIDENTIALITY AGREEMENT FOR TREATMENT OF CONFIDENTIAL TRANSMISSION PLANNING INFORMATION

THIS STANDARD CONFIDENTIALITY AGREEMENT FOR TREATMENT OF CONFIDENTIAL TRANSMISSION PLANNING INFORMATION ("Agreement") is made and entered into this _______ day of ______, 2007 by and between ______ ("Stakeholder"), and E.ON U.S. SERVICES INC., a company organized and existing under the laws of the Commonwealth of Kentucky, acting as agent for its operating companies (in such capacity, "E.ON"), Louisville Gas and Electric Company, a public utility corporation organized and existing under the laws of the Commonwealth of Kentucky ("LG&E"), and Kentucky Utilities Company, a public utility corporation organized and existing under the laws of the Commonwealth of Kentucky ("KU"). Collectively, LG&E and KU may be referred to as the "Transmission Owner." Stakeholder and Transmission Owner each may be referred to as a "Party" or collectively as the "Parties."

Recitals

WHEREAS, Transmission Owner operates a Transmission System; and

WHEREAS, Stakeholder has been identified as having a legitimate interest in the Transmission Owner's transmission planning processes, whether by virtue of being a Transmission Customer, Interconnection Customer, having a transmission interconnection with the Transmission System, or being part of the Kentucky Public Service Commission;

WHEREAS, the Federal Energy Regulatory Commission ("FERC" or "the Commission") requires that transmission planning is carried out in an open and transparent manner, and that the Transmission Owner develop confidentiality procedures to ensure that information flows freely among the Parties;

WHEREAS, Transmission Owner and Stakeholder understand that certain Transmission Planning Information that has been designated as commercially sensitive Confidential Information, as defined in the Tariff, or Critical Energy Infrastructure Information, as defined in 18 CFR § 388.113(c)(1), and its disclosure should be governed by a confidentiality agreement; and

WHEREAS, Stakeholder and Transmission Owner have agreed to enter into this Agreement for the purpose of protecting the disclosure of Confidential Transmission Planning Information.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained

herein, it is agreed:

Article 1: Purpose

This Agreement shall govern the use of the Confidential Transmission Planning Information conveyed to the Stakeholder by the Transmission Owner or the Independent Transmission Organization ("ITO") in relation to transmission planning for the Transmission System.

Unless otherwise agreed, the obligations of confidentiality and non-use set forth in this Agreement do not apply to such Transmission Planning Information that:

- (A) Was, at the time of receipt, already known to the Stakeholder free of any obligation to keep it confidential as evidenced by written records prepared prior to delivery by the Transmission Owner or ITO;
- (B) Is or becomes publicly known through no wrongful act of the Stakeholder;
- (C) Is rightfully received from a third person having no direct or indirect secrecy or confidentiality obligation to the Transmission Owner with respect to such information;
- (D) Is independently developed by an employee, agent, or contractor of the Stakeholder; or
- (E) Is required to be made public by the Stakeholder pursuant to Article 12 of this Agreement.

Article 2: Definitions

Unless otherwise defined in Article 2 of this Agreement, terms shall have the meanings specified in the Transmission Owner's Tariff.

2.1 Transmission Planning Information. The term "Transmission Planning Information" means the information used by the Transmission Owner or ITO in the process of transmission planning. Transmission Planning Information includes Confidential Transmission Planning Information, as well as information that may be publicly available.

2.2 Confidential Transmission Planning Information. The term "Confidential Transmission Planning Information" means the annual Transmission Expansion Plan, Transmission Planning Guidelines and Criteria, data used by the Transmission Owner or ITO in the process of transmission planning, the status of transmission expansion projects, or any other information provided to the Stakeholder with regard to transmission planning on the Transmission Owner's Transmission System that is designated as "Confidential" or "Critical Energy Infrastructure Information."

2.2 Notes. The term "Notes" means memoranda, handwritten notes, or any other form of information (including electronic form) which copies or discloses Confidential Transmission Planning Information. Notes are subject to the same restrictions provided for in this Agreement for Confidential Transmission Planning Information.

2.3 Non-Disclosure Certificate. The term "Non-Disclosure Certificate" shall mean the certificate attached hereto as Exhibit A by which an employee, expert, agent or representative of the Stakeholder who has been granted access to Confidential Transmission Planning Information by the Transmission Owner shall certify their understanding that such access to Confidential Transmission Planning Information is provided pursuant to the terms and restrictions of this Agreement, and that such employee, expert, agent or representative has read the Agreement and agree to be bound by it. The Stakeholder shall deliver all executed Non-Disclosure Certificates to the Transmission Owner.

Article 3: Term and Termination

3.1 Term. The term of this agreement shall commence immediately upon the signature of an officer of the Stakeholder and shall remain in effect for a period of five (5) years unless terminated sooner, with or without cause, by either Party in writing. The confidentiality and non-disclosure obligations of this Agreement shall survive this Agreement for a period of three (3) years after termination.

3.2 Termination. Stakeholder may terminate this Agreement at any time upon written notice of the intent to terminate, at which time Stakeholder shall be prohibited from further receipt of Confidential Transmission Planning Information.

3.2.1 Termination does not excuse the Stakeholder or any of its employees, experts, agents or representatives receiving such information pursuant to a non-disclosure certificate from maintaining the confidentiality of any Confidential Transmission Planning Information received prior to termination and preventing disclosure of that Confidential Transmission Planning Information, under the terms of this Agreement, for the term of this Agreement specified in Article 3.1.

3.2.2 Stakeholder and/or its employees, experts, agents or representatives shall destroy or return all Confidential Transmission Planning Information to the Transmission Owner immediately upon termination of this Agreement.

Article 4: Use of Confidential Transmission Planning Information

All persons who may be entitled to review, or who are afforded access to Confidential Transmission Planning Information by reason of this Agreement shall neither use nor disclose that information for business or competition, or any purpose other than the purposes of evaluating and commenting on the Transmission Owner's transmission planning, and shall keep the Confidential Transmission Planning Information secure as trade secret, confidential or proprietary information and in accordance with the purposes and intent of this Agreement.

Where references to Confidential Transmission Planning Information is required in studies, memorandum, reports, or other documents, internal or external, such references shall be by citation to the data as a whole, without reference to specific third party information and shall not disclose the substantive Confidential Transmission Planning Information contained therein.

Article 5: Nondisclosure

Confidential Transmission Planning Information shall not be disclosed to any person who has not signed a Non-Disclosure Certificate, which is attached hereto as Exhibit "A" and incorporated herein. The Non-Disclosure Certificate shall require the person to whom disclosure is to be made to read a copy of this Agreement and to certify in writing that he or she has reviewed the same and has consented to be bound by its terms. The Non-Disclosure Certificate shall contain the signatory's full name, permanent address and employer. The Stakeholder shall deliver the signed Non-Disclosure Certificate to Transmission Owner and the ITO before disclosure is made.

Confidential Transmission Planning Information, including any Notes or studies produced on behalf of the Stakeholder by its employees, experts, agents or representatives, shall be treated as confidential by each Party, and shall not be disclosed in any manner to any person except another employee, expert, agent or representative who needs to know the information in order to carry out that person's responsibilities related to analysis of transmission planning.

Article 6: Persons Entitled to Review

6.1 Qualifications. Access to Confidential Transmission Planning Information shall be limited to those employees, experts, agents or representatives necessary to perform an analysis of the Transmission Owner's transmission planning.

In the event that any employee, expert, agent or representative to whom the Confidential Transmission Planning Information has been disclosed ceases to be affiliated with the Stakeholder, or is employed or retained for a position that would disqualify that individual pursuant to this Article, the Stakeholder shall terminate that individual's access to Confidential Transmission Planning Information and either destroy all Notes prepared by that employee, expert, agent or representative or return those Notes to the Transmission Owner. The employee, expert, agent or representative shall fulfill their obligations under this Agreement for the remainder of the term of the Agreement as defined in Article 3.

6.2 Designation of Employees, Experts, Agents or Representatives. Within five (5) business days of execution of this Agreement, Stakeholder shall designate the employees, experts, agents or representatives to receive the Confidential Transmission Planning Information. Stakeholder shall provide to the Transmission Owner and the ITO the name, position/title, business address, phone number, and primary responsibilities for each designated employee, expert, agent or representative. Each of these designated individuals must sign a non-disclosure certificate as discussed in 6.4 below. Stakeholder may submit requests for approval of additional employees, experts, agents or representatives to receive Confidential Transmission Planning Information to the Transmission Owner and ITO as required.

6.3 Approval. Transmission Owner must approve the disclosure of Confidential Transmission Planning Information to each designated employee, expert, agent or representative of the Stakeholder, such approval not to be unreasonably withheld.

6.4 Non-Disclosure Certificate. All designated and approved employees, experts, agents or representatives must execute a Non-Disclosure Certificate, Exhibit A, and the Stakeholder must deliver the executed copy to Transmission Owner and ITO before disclosure of Confidential Transmission Planning Information. Stakeholder shall not disclose Confidential Transmission Planning Information to any additional employees, experts, agents or representatives of Stakeholder, unless and until Transmission Owner approves the disclosure and the designated employee, expert, agent or representative signs a Non-Disclosure Certificate.

6.5 Internal Disclosure. An employee, expert, agent or representative may disclose Confidential Transmission Planning Information to another employee, expert, agent or representative as long as the disclosing employee, expert, agent or representative and the receiving employee, expert, agent or representative both have executed a Non-Disclosure Certificate.

Article 7: Treatment of Confidential Material

Confidential information shall be clearly marked and protected from unauthorized public disclosure and disclosure to unauthorized employees, experts, agents or representatives of the Stakeholder.

Article 8: Copies

No copies or transcriptions of the Confidential Transmission Planning Information shall be made by the Stakeholder except as necessary to make the information available to individuals who have executed a Non-Disclosure Certificate.

Article 9: Return of Confidential Transmission Planning Information

9.1 General. Upon request of Transmission Owner, all original documents and copies of the Confidential Transmission Planning Information shall be: 1) returned to Transmission Owner, or 2) shredded by the holder of such documents.

9.2 Return of Notes. Any Notes maintained by a recipient of Confidential Transmission Planning Information which embody or reflect any of the Confidential Transmission Planning Information provided under this Agreement shall, upon request of Transmission Owner, be either returned to Transmission Owner or, at the option of the recipient, destroyed.

Article 10: Accuracy of Information

Stakeholder acknowledges that neither Transmission Owner, nor any of Transmission Owner's agents, employees, or other representatives (including but not limited to the ITO or the Reliability Coordinator), are making any representation or warranty as to the accuracy or completeness of any information furnished to Stakeholder. Neither Transmission Owner nor any of its officers, directors, employees, agents or controlling persons (including, without limitation, parent and subsidiary companies) shall have any liability to Stakeholder, or to any of Stakeholder's agents or other representatives, or any other person, relating to or arising from the use of information provided to Stakeholder by Transmission Owner.

Article 11: Compelled Disclosure.

In the event that Stakeholder becomes legally compelled (by deposition, interrogatory, request for documents, subpoena, civil investigative demand or similar process, or applicable law or regulation) to disclose any Confidential Transmission Planning Information, the Stakeholder shall give the Transmission Owner prompt written notice of such requirement prior to releasing such information so that the Transmission Owner may seek a protective order or other appropriate remedy and/or waive compliance with the terms of this Agreement. The Stakeholder shall cooperate with the Transmission Owner to obtain a protective order. In the event that such protective order or other remedy is not obtained, or that the Transmission Owner waives compliance with the terms hereof, the Stakeholder agrees to provide only that limited portion of the Confidential Transmission Planning Information that it is advised by written opinion of counsel is legally required and to exercise best efforts to obtain assurance that confidential treatment will be accorded such information. Upon request of the Transmission Owner, the Stakeholder shall provide such opinion of counsel to the Transmission Owner. Disclosure of Confidential Transmission Planning Information by the Transmission Owner to regulatory bodies having jurisdiction over the Transmission Owner will not terminate the confidentiality of the Confidential Transmission Planning Information, provided that the Transmission Owner submits the Confidential Transmission Planning Information under an appropriate protective order or agreement.

Article 12: Remedies

Each Party acknowledges that any disclosure or misappropriation of Confidential Transmission Planning Information by the Stakeholder in violation of this Agreement could cause the Transmission Owner irreparable harm, the amount of which may be extremely difficult to estimate, thus making any remedy at law or in damages inadequate. Therefore, the Stakeholder agrees that the Transmission Owner shall have the right to apply to any court of competent jurisdiction for a restraining order or an injunction restraining or enjoining any breach or threatened breach of this Agreement and for any other equitable relief that the Transmission Owner deems appropriate. This right shall be in addition to any other remedy available to the Parties in law or equity.

Article 13: Indemnification

Stakeholder shall indemnify Transmission Owner for any liability to third-parties resulting from the unauthorized disclosure of the Confidential Transmission Planning Information and other Confidential Transmission Planning Information subject to this Agreement by Stakeholder or Stakeholder's employees, experts, agents or representatives to any individual that has not signed a Non-Disclosure Certificate. Stakeholder's indemnification of Transmission Owner includes compensation to Transmission Owner for all of Transmission Owner's attorneys fees.

Article 14: Contact Information

Stakeholder shall send its executed Confidentiality Agreement, signed Non-Disclosure Certificates, and all correspondence related to this Confidentiality Agreement to:

E.ON U.S. Services, Inc. Attn: ______ 220 West Main Street Louisville, KY

The Transmission Owner may, upon notice to Stakeholder, update its contact information at any time during this Agreement.

Article 15: Assignment

This Agreement may only be assigned by a Party with the written consent of the nonassigning Party, which consent shall be at the sole discretion of the non-assigning Party.

Article 16: Amendments

No amendment, modification, and/or discharge of this Agreement, other than that identified in Article 14, shall be valid or binding on the Parties unless made in writing and signed on behalf of each of the Parties by their respective duly authorized officers or representatives.

Article 17: Miscellaneous Provisions

- **17.1.** Nothing contained in this Agreement shall require either Party, or the Parties collectively, to commence, continue, or conclude discussions or negotiations or require the execution of any documents or agreements, which action or inaction shall be at the sole discretion of each Party, respectively.
- 17.2. No Party shall issue any press release or make any public statement of any kind that discussions or negotiations are taking place concerning or related to this Agreement without the prior written consent of the other Party, which consent shall be at the sole discretion of said other Party.
- **17.3.** This Agreement constitutes the entire understanding and agreement between the Parties hereto with respect to the subject matter hereof and supersedes all previous communications, representations, and understandings, both oral and written, between the Parties with respect to the subject matter of this Agreement.
- **17.4.** Nothing herein shall constitute, or be interpreted as creating or constituting any partnership, joint venture or agency relationship between the Parties.

- **17.5.** The validity, interpretation and performance of this Agreement and each of its provisions shall be governed by the laws of the Commonwealth of Kentucky.
- **17.6.** If any provision in this Agreement is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this Agreement.
- **17.7.** The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Any waiver of this Agreement shall, if requested, be provided in writing.
- **17.8.** The descriptive headings of the various Articles of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.

ACCEPTED AND AGREED TO BY:

Stakeholder	E.ON U.S. Services, Inc.	
By:	By:	
Date:	Date:	
Name:	Name:	
Title:	Title:	

EXHIBIT A

NON-DISCLOSURE CERTIFICATE

I hereby certify my understanding that access to materials designated as Confidential Transmission Planning Information is provided to me pursuant to the terms and restrictions of the Confidentiality Agreement between ______ (Stakeholder), and E.ON U.S. Services, Inc., on behalf of LG&E and KU, which I have been given a copy of and have read and understand, and that I agree to be bound by it.

I understand that the contents of Confidential Transmission Planning Information, any Notes or other memoranda, studies or reports, or any other form of information that copies or discloses Confidential Transmission Planning Information provided under the Confidentiality Agreement shall not be disclosed to anyone other than in accordance with the Confidentiality Agreement.

I promise to maintain the confidentiality of any Confidential Transmission Planning Information received from LG&E and KU through the term of the Confidentiality Agreement.

I promise to use the Confidential Transmission Planning Information for the sole purpose of evaluating and commenting on the Transmission Owner's transmission planning.

I acknowledge that a violation of this Non-Disclosure Certificate constitutes a violation of the Confidentiality Agreement and will violate the terms of the Confidentiality Agreement and subject myself and ______ (Stakeholder), to potential liability for the disclosure.

Ву:		
Name:	 	
Title:		

Exhibit 2

Transmission Planning Cycle

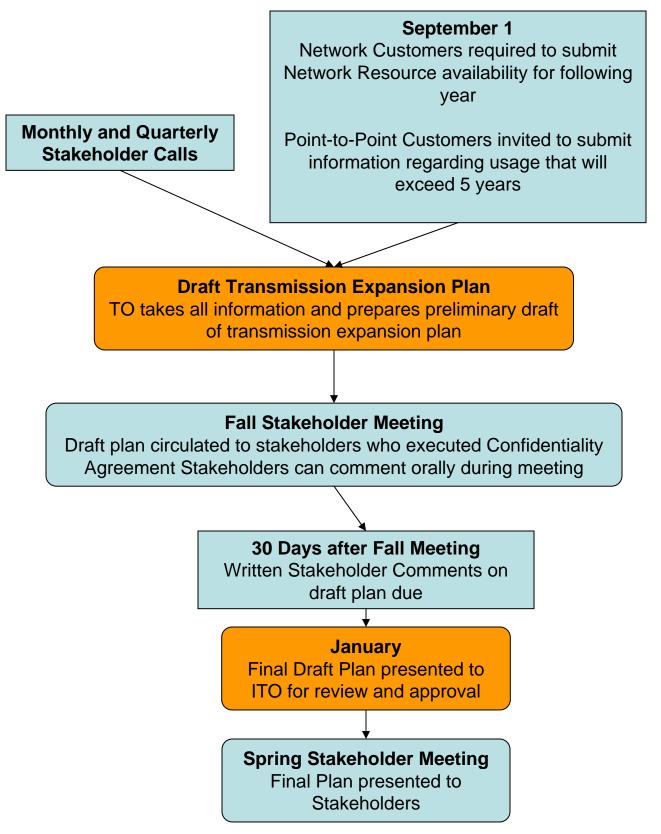


Exhibit 3



Transmission System Planning Guidelines

May 7, 2007

1 Overview

The primary purpose of E.ON U.S.'s (E.ON) transmission system is to reliably transmit electrical energy from designated Network Resources to Network Loads. Interconnections to other transmission systems have been established to increase the reliability of E.ON's transmission system and to provide access to emergency generating sources for Network Customers.

E.ON subscribes to and designs its transmission system to conform to the fundamental characteristics of a reliable interconnected bulk electric system recommended by the North American Electric Reliability Corporation (NERC). Additionally, E.ON is a member of the SERC Reliability Corporation (SERC) and subscribes to and designs its transmission system to comply with the reliability principles and responsibilities set forth in the SERC Supplements.

The Federal Energy Regulatory Commission (FERC) requires all public utilities that own, control or operate facilities used for transmitting electric energy in interstate commerce to have a non-discriminatory Open Access Transmission Tariff. E.ON's Operating Companies (KU/LG&E) have an OATT on file with FERC to provide Point-To-Point transmission service and Network Integration Transmission Service. E.ON is committed to provide the same reliability and priority of service to Long-Term Firm Point-To-Point Transmission Service with a contract period of five years or more as it does for its Network Customers.

The American National Standards Institute (ANSI) and The Institute of Electrical and Electronic Engineers, Inc (IEEE) publish standards for power system equipment design and application. E.ON incorporates ANSI and IEEE standards in the design and application of equipment utilized in the transmission system.

Section 2 elaborates on the NERC Reliability Standards and SERC Supplements, Section 3 presents E.ON's Transmission Planning Guidelines, and Section 4 describes measures to determine Impacted Facilities.

2 NERC and SERC Reliability Standards

NERC Reliability Standards TPL-001 through TPL-004 outline the fundamental requirements for planning reliable interconnected bulk electric systems and the required actions or system performance necessary for compliance. The Regions, subregions, power pools, and their members have the responsibility to develop their own appropriate or more detailed planning criteria and guides based on the NERC Reliability Standards.

E.ON is a member of SERC. SERC has developed Supplement Transmission System Performance in compliance with the NERC Reliability Standards TPL-001 through TPL-004. The SERC Supplement contains the standards that transmission providers are expected to adhere to in their simulated testing and system performance evaluations. E.ON has developed and adopted planning criteria and guides that meet or exceed the requirements of the SERC Supplement.

3 E.ON Transmission Planning Guidelines

E.ON's transmission system is planned to deliver output from designated Network Resources to Network Loads and to provide contracted long-term firm transmission services. The transmission system is planned to withstand forced outages of generators and/or transmission facilities.

E.ON plans its transmission system to meet or exceed the fundamental requirements of a reliable bulk electric system as recommended by the NERC Reliability Standards and the SERC Supplement.

Table 1 describes the contingencies and measurements E.ON utilizes in testing and assessing the performance of its transmission system. Stability of the network should be maintained and cascading outages should not occur. Section 3.1 discusses the applicable thermal limits for Normal and Contingency conditions. Section 3.2 discusses the applicable voltage limits for Normal and Contingency conditions. Section 3.3 discusses modeling issues and how they are considered.

Additionally, E.ON periodically evaluates the risk and consequences of extreme contingency events.

					etom Limite or	mpacts
				System Limits or Impacts		
NERC Cat	Contingencies	Steady State Analysis	Dynamic Analysis	Limits	Voltage Limits	Demand Or Curtailed Firm Transfers
А	No Contingencies	Yes		Normal	Normal	No
B 1-3	Outage of a generator, transmission circuit or transformer.	Yes	a,b	Emergency	Contingency	No
C3	Outage of two generators.	Yes	b	Emergency	Contingency	No
C3	Outage of a generator and a transmission circuit.	Yes	b	Emergency	Contingency	No
C3	Outage of a generator and a transformer.	Yes	b	Emergency	Contingency	No
	Outage of a transmission circuit or transformer with plant at maximum output.	Yes		Emergency	Contingency	No
C1	Outage of a bus section.	Yes	с	Emergency	Contingency	Yes
C2	Outage of a breaker.	Yes	с	Emergency	Contingency	Yes
C3	Outage of two transmission circuits.	Yes	b	Emergency	Contingency	Yes
C3	Outage of a transmission circuit and a transformer.	Yes	b	Emergency	Contingency	Yes
C3	Outage of two transformers.	Yes	b	Emergency	Contingency	Yes
C5	Outage of two circuits on a multiple circuit tower line.	Yes	d	Emergency	Contingency	Yes
C6-9 D1-4	Outage of a generator, transmission circuit, transformer or bus section.	No	e,f	Emergency	Contingency	Yes
D5	Outage of a breaker.	No	g	Emergency	Contingency	Yes
D6	Outage of tower line with three or more circuits	Yes	a	Emergency	Contingency	Yes
D7	All transmission on a common right-of way [more than 1 mile in length]	Yes	a	Emergency	Contingency	Yes
D8	Outage of a substation (one voltage level plus transformers	Yes	a	Emergency	Contingency	Yes
D9	Outage of a switching station (one voltage level plus transformers	Yes	а	Emergency	Contingency	Yes
D10	Outage of all generating units at a station	Yes	a	Emergency	Contingency	Yes
D11	Loss of a large load or major Load center	Yes	а	Emergency	Contingency	Yes

 Table 1

 Transmission Contingencies and Measurements

Notes:

Fault Types

- a) None
- b) Single Line Ground or 3-Phase, with Normal Clearing
- c) Single Line Ground, with Normal Clearing
- d) Non 3-Phase, with Normal Clearing
- e) Single Line Ground, with Delayed Clearing
- f) 3-Phase with Delayed Clearing
- g) 3-Phase with Normal Clearing

3.1 Thermal Limits

E.ON has established normal and emergency thermal limits (MVA) for each facility based upon its established facility ratings methodology. Flows should be within normal MVA ratings with normal generation and normal transmission system conditions. Flows should be within emergency MVA ratings for each contingency where "No" Loss of Demand Or Curtailed Firm Transfers is indicated. The recorded circuit flow will be the maximum MVA flow of either end. The recorded transformer flow will be the "design output" flow; GSU flows will be measured at the HV side, Step-down transformers will be measured at the LV side and system tie transformers will be measured on the side where the flow exits the transformer. A facility will be overloaded when the MVA flow, rounded to two decimal places, exceeds the applicable rating.

3.2 Voltage Limits

A transmission voltage of 94 percent of the nominal value is the minimum acceptable for normal load service and should be maintained at all load serving busses with normal generation and normal transmission system conditions. Any 500 kV system bus voltage should not exceed 110 percent of the nominal value and any other transmission bus voltage should not exceed 105 percent of the nominal value.

Transmission level voltage at the major power plants should be maintainable with normal generation and normal transmission system conditions during summer and winter peak load conditions, as follows:

Table 2Normal Plant Voltages at System Peak Load					
Power <u>Plant</u>	Transmission <u>Bus (kV)</u>	Scheduled Voltage (kV)	Per Unit <u>Voltage</u>		
Brown	Brown N 138	142	1.029		
Cane Run	Cane Run Sw 138	138	1.000		
Ghent	Ghent 345	355	1.029		
Green River	Green River 138	142	1.029		
Mill Creek	Mill Creek 345	352	1.020		
Trimble County	Trimble Co 345	352	1.020		
Elmer Smith	Smith 138	142	1.029		

A transmission voltage of 90 percent of the nominal value is the minimum acceptable for contingency load service and should be maintained at all load serving busses during any transmission system contingency or generation and transmission system contingency.

Generators and plant auxiliary systems are generally designed to operate within +/- 5% of the nameplate or nominal voltage. Table 3, on the following page, shows the required transmission level voltage at each generating unit to maintain generator voltage and auxiliary bus voltage above 95% of nominal with the unit operating at maximum MW and MVAR output. The transmission level voltage should exceed the voltage specified in Table 3 during any contingency condition. Only on-line generators are applicable to the analysis.

A voltage violation will occur when the percent nominal voltage, rounded to two decimal places, is outside the applicable criteria.

Table 3
Minimum Operating Voltage at Generators

Transmission		Minimum	
Bus	Generator	Voltage	<u>Limit</u>
Brown Plant 138	Brown 1	0.935	Gen
	Brown 2	0.964	Aux
Brown North 138	Brown 3	0.931	Aux
Brown CT 138	Brown 5	0.928	Gen
	Brown 6	0.929	Gen
	Brown 7	0.929	Gen
	Brown 8	0.918	Gen
	Brown 9	0.918	Gen
	Brown 10	0.918	Gen
	Brown 11	0.918	Gen
Cane Run Sw 138	Cane Run 4	0.936	Gen
	Cane Run 5	0.941	Gen
	Cane Run 6	0.940	Gen
Ghent 138	Ghent 1	0.947	Aux
Ghent 345	Ghent 2	0.959	Gen
	Ghent 3	0.964	Gen
	Ghent 4	0.963	Gen
Green River 138	Green River 3	0.926	Aux
	Green River 4	0.944	Aux
Mill Creek 345	Mill Creek 1	0.958	Gen
	Mill Creek 2	0.958	Gen
	Mill Creek 3	0.953	Gen
	Mill Creek 4	0.953	Gen
Paddys Run 138	Paddys Run 13	0.937	Gen
Trimble Co 345	Trimble Co 1	0.960	Gen
	Trimble Co 5	0.943	Gen
	Trimble Co 6	0.943	Gen
	Trimble Co 7	0.943	Gen
	Trimble Co 8	0.943	Gen
	Trimble Co 9	0.943	Gen
	Trimble Co 10	0.943	Gen
Smith 138	Smith 1	0.942	Gen
	Smith 2	0.945	Gen

3.3 Modeling Considerations

- <u>Seasons Assessed –</u> The power flow analysis used in the Planning process will evaluate the adequacy of the transmission system to provide Network Integration Transmission Service using summer and winter peak load models and will be documented by an annual Transmission Expansion Plan. Transmission constraints that may occur during shoulder and off-peak conditions will be managed via the ATC process, including potential redispatches. System Impact Studies for Generator Interconnections and any dynamic analysis will also utilize other seasonal and light load models, as appropriate.
- <u>Generation Dispatch</u> Replacement generation required to offset unit outages should be simulated from the most restrictive of internal sources, AEP, Cinergy, and/or TVA. Maximum plant output will be achieved by simulating an outage of one unit at another plant and prorating additional reductions, as necessary, across all on-line units at other plants
- <u>Single Contingency</u> A single contingency may outage multiple transmission components in the common zone of relay protection. Reclosure of the non-faulted components will be evaluated but is not required if violations occur as a result of the post-fault restoration. Procedures should be developed and documented if the component is not to be reclosed.
- Load Restoration and Switching Post-fault conditions and conditions after load restoration and or switching should be evaluated. Post-contingency operator-initiated actions to restore load service must be simulated. Load that is off-line as a result of the contingency being evaluated may be switched to alternate sources during the restoration process but load should not be taken off-line to perform switching. Post-contingency operator-initiated actions may be simulated to reduce the flow through transformers or increase voltages but not to reduce line flows.
- <u>Transmission Capacitor Switching -</u> Transmission capacitor status (on/off) should be simulated consistent with automatic voltage control (on/off) settings and operating practice during normal transmission system conditions. Capacitor switching should not be simulated to eliminate voltage violations that result from a contingency unless the automatic voltage control would cause the capacitor to operate.
- <u>Off-Peak Voltage Control –</u> Transmission system changes to manage Off-Peak voltages will be identified and evaluated using operation data. Seasonal adjustment of fixed taps on transmission transformers should not be required to control voltages within the acceptable ranges. Switching EHV system facilities out of service to reduce off-peak voltages is undesirable.
- <u>Voltage Fluctuations</u> E.ON limits voltage fluctuation due to customer load variations and transmission capacitor switching to a maximum of 3% during normal transmission conditions and 6% during single transmission contingencies. These maximum values apply if the fluctuation occurs less frequently than once per hour. If more frequent, the maximum allowable voltage fluctuation is reduced as per the Limits of Flicker published in IEEE Std 519. The maximum normal and contingency fluctuations are limited to the "Border Line of Visibility" and the "Border Line of Irritability" curves, respectively.

4 Impacted Facilities

Generator Interconnections, Transmission to Transmission Interconnections, Network Integrated Transmission Service, and Long-Term Firm Point to Point (1 yr or longer) Requests require studies to identify facilities that are impacted. The following minimum requirements are used to identify Impacted Facilities:

- the flow increases by 1.00% or more,
- the voltage decreases by 0.50% or more, or
- the short circuit current increases by 5.00% or more.

Impacted Facilities that are identified with pre-existing criteria violations (simulations on base case models) will be evaluated to determine the upgrade required to mitigate the pre-existing violation. Such upgrade and associated rating will be used to determine if additional costs are required due to the Request.