

**ATTACHMENT G**  
**Network Operating Agreement**

This Network Operating Agreement (“NOA”), made and entered into this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, and effective as of \_\_\_\_\_ by and between Louisville Gas & Electric Company/Kentucky Utilities Company (“LG&E/KU” or “Transmission Owner”) and \_\_\_\_\_ (“Network Customer” or “\_\_\_\_\_”) (LG&E/KU and Network Customer are hereafter referred to individually as “Party” or jointly as “Parties”) sets forth the operating conditions associated with Network Integration Transmission Service (“NITS”) approved by the Independent Transmission Organization (“ITO”) under the Transmission Owner’s Open Access Transmission Tariff (“Tariff”).

The Parties agree that the provisions of this Network Operating Agreement (“NOA”) are incorporated by reference into the Network Integration Transmission Service Agreement (“NITSA”) between the Parties and govern the provision of transmission services in accordance with the Tariff as it may be amended from time to time.

This NOA defines the terms and conditions under which the Network Customer shall operate its facilities and the technical and operational matters associated with the implementation of the Tariff. The Transmission Owner and the Network Customer shall operate and maintain equipment necessary for integrating the Network Customer within LG&E/KU’s Transmission System (including, but not limited to, Remote Terminal Units (“RTUs”), metering, communication equipment and relaying equipment) according to Good Utility Practice. In furtherance of this requirement, the Parties agree the following customer-owned listed items shall apply to service hereunder: RTUs:\_\_\_\_\_, Metering:\_\_\_\_\_, Communications Equipment:\_\_\_\_\_, Relaying Equipment:\_\_\_\_\_, Other:\_\_\_\_\_.

**1. NERC Balancing Authority, Power Supply, and Distribution/Generation Requirements**

- (a) The Network Customer shall: (i) operate as a NERC-certified Balancing Authority (“BA”) under applicable guidelines of the North American Electric Reliability Corporation (“NERC”) and the SERC Reliability Corporation (“SERC”); or (ii) satisfy its NERC BA requirements by contracting with the Transmission Owner; or (iii) satisfy its NERC BA requirements by contracting with another entity that can satisfy those requirements in a manner that is consistent with the Tariff and Good Utility Practice and satisfies NERC and SERC standards. The Network Customer shall procure its power supply in a manner consistent with Good Utility Practice and in satisfaction of NERC and SERC standards.
- (b) The Network Customer shall cause the transmission, distribution and generation facilities and systems belonging to it (as defined in the NITSA) that will be used to serve the Network Customer’s Network Load, to be planned, constructed,

operated and maintained in accordance with Good Utility Practice, which shall include, but not be limited to, all applicable guidelines of NERC and SERC, as they may be modified from time to time, and any generally accepted practices in the region that are consistently adhered to by the Transmission Owner.

- (c) The Network Customer shall be responsible for registering with all applicable reliability entities for all pertinent functions under the NERC Reliability Functional Model.
- (d) The Network Customer shall be responsible for complying with applicable NERC and SERC Reliability Standards, including, but not limited to, any Reliability Standards applicable to contingencies.
- (e) The Transmission Owner shall be entitled to pass through to the Network Customer the costs of any penalty, fine or charges from any reliability entity allocated when there is a finding by a Regional Entity, NERC or the Commission that the Network Customer's actions caused or contributed to the violation, subject to the following conditions:
  - (i) The Network Customer will only be required to pay its proportionate share of any penalty, fine or charges based on the percentage of the violation determined to have been caused by, or contributed to by, the Network Customer that led to the assessment of such penalty, fine or charges.
  - (ii) The Transmission Owner is required to file a FPA Section 205 filing for the Commission to approve the pass-through of each specific penalty, fine or charge.
  - (iii) No such FPA Section 205 filing shall be made unless the Network Customer, NERC, the Regional Entity and the Commission have been notified during the course of the investigation, hearing or other inquiry into the matter that the Transmission Owner believes that the Network Customer may be responsible for a violation.

## **2. The Operating Committee**

- (a) The Operating Committee shall consist of one representative and an alternate representative of each Party. Each Party shall notify the other Party of its appointments in writing. Such appointments may be changed at any time by providing similar advance notice in writing to the other Party.
- (b) The Operating Committee shall meet at least once a year to carry out the duties set forth herein, subject to the Operating Committee's determination of which of its duties are appropriately carried out at that time, as necessary and appropriate at

the time of the meetings.

- (c) The Operating Committee shall ensure that the facilities of the Network Customer are operated on a coordinated basis in full accordance with the FERC-approved LG&E/KU OATT, the FERC-approved NERC Standards, SERC, or the then-current regional reliability organization standards, operating guides, North American Energy Standards Board (“NAESB”) Business Practices, LG&E/KU Business Practices and Good Utility Practice.
- (d) The duties of the Operating Committee shall include the following:
  - (i) Establish and maintain control and operating procedures, including those pertaining to information transfers between the Parties, consistent with the provisions of this NOA;
  - (ii) Establish appropriate procedures in order to carry out the requirements of NERC and SERC, or the then-current regional reliability organization requirements;
  - (iii) Assemble and exchange information necessary for transmission planning;
  - (iv) Establish data requirements necessary for the Transmission Owner to provide Network Integration Transmission Service in accordance with the terms and conditions of the Tariff;
  - (v) Review data acquisition equipment, protective equipment, and other equipment or software requirements, standards and procedures;
  - (vi) Coordinate among the members of the Operating Committee with regard to any modifications to the Network Customer’s facilities that might require changes in the Transmission Owner’s real-time telemetry and data acquisition system in order for the Transmission Owner to continue to provide service under the NITSA;
  - (vii) Establish standards for the design, operation, and maintenance of the facilities necessary to integrate the Network Customer’s Network Loads with the Transmission Owner’s Transmission System (including, but not limited to, RTUs, communication equipment, relaying equipment and voltage/power factor measures);
  - (viii) Develop, coordinate and monitor operational procedures for implementation and application of the Transmission Owner’s redispatch procedures in connection with service under the NITSA;

- (ix) Review annually and update, as appropriate, information related to the Network Customer's Network Load, the delivery points and voltage levels, and associated network load forecasts; and
- (x) Review annually the plans and procedures agreed to by the Parties under other contractual arrangements that could impact either Party's performance or obligations under this NOA or the NITSA.
- (e) If the Operating Committee is unable to agree unanimously on a matter coming under its jurisdiction, the Parties shall refer the dispute to a designated senior representative of the Transmission Owner and the Network Customer for resolution of such dispute on an informal basis as promptly as possible. In the event that the designated representatives are unable to resolve the dispute within 30 days (or such other period as the Parties may mutually agree upon), then such dispute may, if agreed to by Transmission Owner and Network Customer, be resolved by arbitration under the Kentucky Uniform Arbitration Act, as amended.
- (f) As described more below, in the event of a failure by the Network Customer to manually shed load when required to do so pursuant to the provisions of Section 6(d) of this NOA, the Operating Committee will review the circumstances surrounding such failure and will also adopt remedial measures and protection deemed appropriate to avoid a similar failure in the future.

### **3. Redispatch Procedures**

When necessary to maintain the reliable operation of the Transmission System, the Transmission Owner will take actions intended to effectively relieve an existing or potential transmission constraint in the following order: (i) interrupt or curtail non-firm transactions that impact the constraint; (ii) redispatch Network Resources that impact the constraint; and (iii) curtail firm transactions that impact the constraint. Redispatch Procedures shall include the following:

- (a) If the BA or Reliability Coordinator ("RC") determines that redispatching resources (including reductions in off-system purchases and sales) to relieve an existing or potential transmission constraint is the most effective way to ensure the reliable operation of the Transmission System, the BA will redispatch Network Resources and the Transmission Owner's own resources on a least-cost basis, without regard to the ownership of such resources. The BA will apprise the Network Customer of its redispatch practices and procedures, as they may be modified from time to time.
- (b) The Network Customer will submit verifiable cost data for its resources, which estimates the cost to the Network Customer of changing the generation output of each of its Network Resources, to the Transmission Owner. This cost data will be

used, along with similar data for the Transmission Owner's resources, as the basis for least-cost redispatch for all Network Customers overall. The Transmission Owner's bulk power operations personnel will keep this data confidential, and will not disclose it to the Transmission Owner's marketing personnel. If the Network Customer experiences changes to its costs, the Network Customer will submit those changes to the Transmission Owner. Based on this information, the BA will implement least-cost redispatch consistent with existing contractual obligations and current practices and procedures applicable to the Transmission Owner's resources. The Network Customer shall respond immediately to requests for redispatch from the BA.

- (c) The Network Customer or the Transmission Owner may audit, at its own expense, redispatch event data (such as data relating to the cause or necessity of the redispatch, response, cost or any other necessary data) during normal business hours provided it has given reasonable notice to the holder of such data. Each Party to this Agreement may request an audit of the other Party's cost data. Any audit of cost data will be performed by an additional independent agent at the requesting Party's cost. Such independent agent will be a nationally recognized accounting firm and will be required to keep all cost data confidential. A Party shall cooperate in any audit requested by the other Party.
- (d) Once redispatch has been implemented, the Network Customer will submit its incremental cost data to the Transmission Owner and the Transmission Owner will book in a separate account the redispatch costs incurred by each Network Customer, including its own cost data. The Transmission Owner and each Network Customer will each bear a proportional share of the total redispatch costs in a calendar month based on their then-current Load Ratio Shares. The redispatch charge or credit, as appropriate, will be reflected on the Network Customer's monthly bill.

#### **4. Metering**

Metering requirements shall include the following:

- (a) The Network Customer will be responsible for the purchase, installation, operation, maintenance, repair and replacement of all metering equipment necessary to provide NITS and any related Ancillary Services. All metering equipment of the Network Customer shall conform to Good Utility Practice and the standards and practices of the Transmission Owner's BA. Prior to the installation of new or replacement metering equipment, the Transmission Owner and the Network Customer shall review the metering equipment to ensure its conformance with such standards or practices.
- (b) Electric capacity and energy from the Network Customer's Network Resources

will be measured by meters installed at the output of the Network Customer's Network Resources located within the LG&E/KU BA Area, except when Network Customer's Network Load is served with behind-the-meter generation, in which case, the requirements of subsection (i) to this section apply.

- (c) When measurement is made at any location other than a Delivery Point, suitable adjustment for losses between the point of measurement and the Delivery Point will be agreed upon in writing between the Transmission Owner and Network Customer and will be applied to all measurements so made. Metered receipts used in billing and accounting hereunder will in all cases include adjustments for such losses.
- (d) Meters at the Network Customer's Network Resources or Network Load will be tested at least biennially by the Network Customer. Representatives of the Transmission Owner will be afforded an opportunity to witness such tests.
- (e) The Network Customer will, upon request of the Transmission Owner, test any meter at its Network Resources or any meter owned by the Network Customer and used for determining the receipt or delivery of capacity and energy for Network Service by the Transmission Owner which is reasonably suspected to be inaccurate. In the event the test shows the meter to be inaccurate, the Network Customer will make any necessary adjustments, repairs or replacements thereon as soon as practicable. In the event that the test shows the meter to be accurate, as defined by Section 4(f) of this NOA, the Transmission Owner will reimburse the Network Customer for its costs of performing the test.
- (f) In the event any meter used to measure capacity and energy fails to register or is found to be inaccurate, appropriate billing adjustments, based on the best information available, will be agreed upon by the Transmission Owner and Network Customer. Any meter tested and found to be not more than one (1) percent above or below normal will be considered to be correct and accurate insofar as correction of billing is concerned. If, as a result of any test, a meter is found to register in excess of one (1) percent either above or below normal, then the reading of such meter previously taken will be corrected according to the percentage of inaccuracy so found, but no correction will extend beyond ninety (90) days previous to the day on which inaccuracy is discovered by such test.
- (g) The Transmission Owner will have the right to install suitable metering equipment at any point(s) of receipt for Network Resources or delivery, as herein provided for the purpose of checking the meters installed by the Network Customer.
- (h) The Network Customer will read the meters owned by it, except as may be mutually agreed by the Transmission Owner and the Network Customer, and will

furnish to the Transmission Owner all meter readings and other information required for billing purposes by the second business day of each month. All metering and billing information will remain available to the Transmission Owner for three (3) years.

- (i) In cases where Network Customer's Network Load is being served with behind-the-meter generation, either in part or in its entirety, electric capacity and energy delivered to the Network Customer's Network Load will be measured on an hourly integrated basis by suitable metering equipment installed at each connection to such Network Load and Delivery Point, and at each generating facility and at each auxiliary load at such generating facility. Network Customer shall provide a diagram of the metering equipment at each of these locations to the Transmission Owner and such diagram will be attached to this NOA. This diagram may be amended from time to time by the Parties to reflect metering changes. The actual hourly components of Network Customer's Network Load, by Delivery Point, internal generation site, auxiliary load, and point where power may flow to and from the Network Customer and its Network Resources, with separate readings for each direction of flow, shall be provided.

## **5. Balancing Authority Area and Data Equipment**

BA Area and Data Equipment requirements shall include the following:

- (a) The Network Customer will be responsible for the purchase, installation, operation, maintenance, repair and replacement of all data acquisition equipment, metering equipment, protection equipment, and any other associated equipment and software, which may be required by the Transmission Owner for the Network Customer to operate in accordance with the Metering Requirements of this NOA. Such equipment shall conform to Good Utility Practice and the standards and practices of the Transmission Owner's BA Area. Prior to the installation of new or replacement equipment, the Transmission Owner and the Network Customer shall, and the Transmission Owner may, review the equipment and software required by this Section to ensure conformance with such standards or practices.
- (b) The Transmission Owner, using reasonable discretion, shall select the real time telemetry and data to be received by the Transmission Owner and the Network Customer as deemed necessary for reliability, security, economics, and/or monitoring of system operations. This telemetry includes, but is not limited to, loads, line flows, voltages, generator output, and breaker status at any of the Network Customer's transmission facilities. To the extent telemetry is required that is not available, the Network Customer shall, at its own expense, install any metering equipment, data acquisition equipment, or other equipment and software necessary for the telemetry to be received by the Transmission Owner. The Network Customer shall consult with the BA regarding the necessary data and

telemetry needed for reliability, security, economics, and/or monitoring of system operations.

- (c) The Transmission Owner and Network Customer shall be responsible for implementing any computer modifications or changes required to their own computer system(s) as necessary to implement this Section (Balancing Authority Area and Data Equipment).

## **6. Operating Requirements**

Operating Requirements shall include the following:

- (a) The Network Customer shall operate its generating resources located within the Transmission Owner's BA Area located on the Transmission Owner's system, if any, in a manner consistent with that of the Transmission Owner, following voltage schedules, free governor response, meeting power factor requirements at the point of interconnection of such generating resources with the Transmission Owner's system, and other such criteria required by NERC and SERC and consistently adhered to by the Transmission Owner.
- (b) Network Customer will take operational steps required consistent with Good Utility Practice to ensure that the deliveries to all Delivery Points (specified in the appendix to the NITSA) do not exceed the annually forecasted Network Load. Changes to forecasted Network Load amounts must be made consistent with the requirements of the Tariff, the Transmission Owner's Business Practices, and the Criteria for Notification of Network Customer Load Changes procedures posted on OASIS.
- (c) Insofar as practicable, the Transmission Owner and the Network Customer shall protect, operate, and maintain their respective systems so as to avoid or minimize the likelihood of disturbances which might cause impairment of service on the system(s) of the other.
- (d) For Network Customers that elect to satisfy their NERC BA requirements by contracting with the Transmission Owner as provided in Section 1(a) (ii) above of this agreement, the following requirements apply:
  - (i) The Transmission Owner is not required to provide Backup Supply Service to, for, on behalf of, or for the benefit of, any of the Network Customer's loads and/or resources. In Order No. 888, the Commission has described Backup Supply Service as an alternative source of generation that a customer may use in the event that its primary generation source becomes unavailable for more than a few minutes and has ruled that the Transmission Owner is not required to provide Backup Supply



Service as an Ancillary Service. While the Transmission Owner will offer to provide the Network Customer Ancillary Services, including short-term operating reserve services (spinning and supplemental reserves), if a Network Customer uses either type of such short-term operating reserve, it must expeditiously replace the reserve with Backup Supply Service to reestablish reserve levels. Backup Supply Service is a generation service that is the responsibility of the Network Customer, who may contract for Backup Supply Service with any power supplier or may determine to curtail load. Thus, the Transmission Owner is not required to provide any Backup Supply Service in the event that the Network Customer experiences a supply shortage.

- (ii) Ancillary Services. The Network Customer must purchase Schedule 1 Scheduling, System Control and Dispatch Service, Schedule 2 Reactive Supply and Voltage Control from Generation Sources Services, and comply with Schedule 11 Losses. The Network Customer must either self-supply or purchase from the Transmission Owner Schedule 3 Regulation and Frequency Response, Schedule 4 Imbalance Energy, Schedules 5 and 6 Supplemental and Spinning Reserves and Schedule 9 Generation Imbalance Service.
- (iii) As noted above, Transmission Owner is obligated to provide the Tariff-required Ancillary Services for imbalances under Schedules 4 and 9 if the Network Customer has not either self-supplied these services or obtained them from a third party. Under Schedule 4, Energy Imbalance Service is provided when a difference occurs between the scheduled and the actual delivery of energy to a load located within the control area over a single hour. The Transmission Owner must offer this service when the transmission service is used to serve load within its BA Area. Under Schedule 9, Generator Imbalance Service is provided when a difference occurs between the output of a generator located in the Transmission Owner's BA Area and a delivery schedule from that generator to (1) another BA Area or (2) a load within the Transmission Provider's BA Area over a single hour. The Transmission Owner must offer Energy Imbalance Services and Generation Imbalance Services, to the extent physically feasible from its resources or resources available to it, when transmission service is used to deliver energy from a generator within its BA Area. As stated in such schedules, Energy and Generation Imbalance Services supplied to the Network Customer are limited to the difference between scheduled load and actual load and scheduled generation deliveries and the actual output of a generator over a single hour. Energy Imbalance Service is not to be relied upon by the Network Customer as a Backup Supply Service.

- (iv) The Parties shall implement load shedding programs to maintain the reliability and integrity of the Transmission System. Such load shedding programs shall include: (1) automatic load shedding by underfrequency relay and (2) manual load shedding. The Network Customer will manually shed Network Load as necessary: (a) if, despite pursuing mitigation procedures pursuant to Appendix A hereto, the Network Customer remains unable to deliver power to its Network Load due to a power supply shortage affecting the Network Customer, or (b) to the extent that a contingency exists on the system in accordance with Section 33.6 of the Tariff (proportionately with all of the Transmission Owner's other firm transmission commitments affecting, or affected by, a transmission constraint). The Transmission Owner will implement load shedding to maintain the relative sizes of load served, unless otherwise required by circumstances beyond the control of the Transmission Owner or the Network Customer. Automatic load shedding devices will operate without notice. When manual load shedding is necessary, the Transmission Owner shall notify the Network Customer's dispatchers or schedulers of the required action and the Network Customer shall comply immediately.

In the event that the Network Customer fails to manually shed Network Load as required hereunder, the Network Customer shall pay: a penalty as set forth in Schedule 13 of the Tariff applied to the amount of load at those Delivery Points that the Transmission Owner requested to be shed that was not shed; energy imbalance pursuant to Schedule 4; and any other costs or damages incurred due to the Network Customer's failure to shed Network Load (including, but not limited to, costs in connection with unit start up, system losses and changes in the generation dispatch and all applicable NERC and SERC penalties subject to Commission approval and other conditions as set forth in 1 (e) above).

In the event of a failure by the Network Customer to manually shed load, the Network Operating Committee will review the circumstances surrounding such failure and will also adopt remedial measures and protection deemed appropriate to avoid a similar failure in the future.

The Transmission Owner does not employ any Special Protective Schemes ("SPS") and does not allow its own load to use SPS.

- (e) The Network Customer shall, at its own expense, provide, operate, and maintain or cause to be provided, operated, and maintained in service high-speed, underfrequency load shedding equipment. The Network Customer will install, or cause to be installed, underfrequency relays to disconnect automatically

approximately thirty percent (30%) of its Network Load in a manner consistent with SERC's Automatic Underfrequency Load Shedding ("UFLS") standard. (See SERC UFLS Standard PRC-006-SERC-001). The installation of underfrequency relays to accomplish any additional load shedding above that already installed shall be completed on a schedule agreed to by the Operating Committee. The Operating Committee may review the amount of load that would be disconnected automatically and make such adjustments and changes as necessary.

- (i) In the event the Transmission Owner modifies the load shedding system, the Network Customer shall, at its expense, make changes, or cause such changes to be made, to the load shedding equipment and setting of such equipment, as required. The Network Customer shall test and inspect the load shedding equipment within ninety (90) days of taking Network Integration Transmission Service under the Tariff and thereafter in accordance with Good Utility Practice, and provide a written report to the Transmission Owner. The Transmission Owner may request a test of the load shedding equipment with reasonable notice.

## **7. Scheduling**

- (a) When the Network Customer is (i) serving Network Load located within the Transmission Owner's BA Area from a Network Resource that is physically or electronically located outside of the Transmission Owner's BA Area, or (ii) is serving load with a Network Resource that is located within the Transmission Owner's BA Area but is not owned by the Transmission Owner (e.g., the generation is owned by a municipal system located in the Transmission Owner's BA Area or an independent power producer), then the Network Customer shall provide the Transmission Owner with an electronic schedule or e-Tag for the operation of such Network Resource.
- (b) If the Transmission Owner is required to proportionally curtail firm transmission commitments in accordance with Section 33 of the Tariff, the Network Customer will adjust its scheduled deliveries, and/or Network Resource Output by the amount of the curtailment. As soon as practicable, the Network Customer will purchase power or adjust other Network Resource schedules to serve the Network Load for the duration of the transmission curtailments.

## **8. Operational Information**

The Network Customer shall provide data needed for the safe and reliable operation of the Network Customer's and the Transmission Owner's respective facilities and to implement the provisions of the Tariff. The Transmission Owner will treat this information as confidential and will not divulge it to its marketing personnel.

- (a) The Transmission Owner and the Network Customer shall notify and coordinate with the other Party prior to the commencement of any work by either Party (or contractors or agents performing on their behalf), which may directly or indirectly have an adverse effect on the facilities of the other Party.
- (b) The Network Customer shall promptly notify the Transmission Owner whenever any scheduled or forced outages occur that would affect the reliable operation of the Transmission Owner's Transmission System. Prompt notice shall also be given when such unscheduled or forced outages end.
- (c) In no event shall the Network Customer connect any new generator to the Transmission Owner's Transmission System without requesting Generator Interconnection Service under the Tariff and without either a FERC approved Large Generator or Small Generator Interconnection Service Agreement, as applicable.
- (d) The addition of new generators or modifications of existing generators that are not interconnected to the Transmission System, but rather, are interconnected to the Network Customer's system, will be studied for effects on the Transmission System as an Affected System Study which will be coordinated by the Network Customer with the Transmission Owner and other appropriate transmission entities, if any. Appropriate agreements, executed by both the Network Customer and the Transmission Owner, will be entered into to cover the timing for the study as well as the Transmission Owner's costs of studying the impacts of such facility modifications on the LG&E/KU system. The costs of constructing any Network Upgrades on the LG&E/KU Transmission System identified in the Affected System Study will be determined by the Transmission Owner during a Facility Study after the execution of a Facility Study Agreement by the Network Customer. Nothing in this subsection grants the Network Customer any transmission services under the Transmission Owner's Tariff for the new or modified facilities.
- (e) In the event that the Transmission Owner determines that the Network Customer's generators are adversely affecting the transmission system operations or reliable service on the transmission system or otherwise impairing the Transmission Owner's ability to operate the transmission system or serve customers, the Network Customer will follow the Transmission Owner's instructions, including a request to disconnect the generators. The Transmission Owner will issue all disconnect orders in a manner consistent with NERC Standards; however, nothing in this statement shall be construed by the Network Customer as providing a basis for not obeying a disconnect order.
- (f) For Network Customers that elect to satisfy their NERC BA requirements by contracting with the Transmission Owner as provided in Section 1(a) (ii) above of

this agreement, the following requirements apply:

- (i) For all Network Customers Service (except for as-available Secondary Service under Section 28.4 of the Tariff), the Network Customer shall provide, at least 36 hours in advance of every calendar day the Network Customer's best forecast of any planned transmission or Network Resource availability and/or outage(s), the external transmission arrangements for Network Resource delivery, a certification that all transmission paths external to the LG&E/KU transmission system have been obtained as firm (if a certification has not been previously given), an estimate of load each hour that is not covered by firm Network Resources with firm transmission from sink to source and other operating information that the Transmission Owner and/or ITO deems appropriate. In the event that such planned outages cannot be accommodated due to a transmission constraint on the Transmission Owner's Transmission System, the provisions of Section 33 of the Tariff will be implemented. For Secondary Service under Section 28.4 of the Tariff, the Network Customer shall provide notice in accordance with Section 18 of the Tariff (Procedures for Arranging Non-Firm Point-To-Point Transmission Service, including the time restrictions in Section 18.3 of the Tariff), and state the external transmission arrangements if any, an estimate of load at each hour that is being served by Secondary Service and any other operating information deemed appropriate by the Transmission Owner and/or ITO to provide the service, and
- (ii) In the event that the Network Customer's import schedule for a Designated Network Resource is curtailed by any third-party transmission provider, or the Network Customer is aware or should be aware that any curtailment of its import schedule is imminent, the Network Customer shall immediately notify the Transmission Owner's BA Authority function and the ITO of such a change or probable change in its schedule. At such time, the Network Customer shall provide the Transmission Owner with notification of: (i) the reasons for such curtailment; and (ii) the alternative arrangements made or to be made by the Network Customer for replacing any such curtailed power and energy pursuant to the terms of Section 6(d) hereof.

## **9. Network Planning**

- (a) In order for the Transmission Owner to plan, on an ongoing basis, to meet the Network Customer's requirements for Network Integration Transmission Service, the Network Customer shall provide to the ITO and the Transmission Owner, no later than October 31 of each year, updated information (current year and 10-year projection) for Network Loads and Network Resources, as well as any other

information reasonably necessary to plan for Network Integration Service. The forecast shall include consideration of the Network Customer's peak load data from the most recent summer peak. This type of information is consistent with the information requirements for the Transmission Owner's plan to serve its Native Load Customers. The data will be provided in a format consistent with that used by the Transmission Owner and its Reliability Coordinator.

- (b) The Network Customer shall provide no later than October 31 of each year the Network Customer's Network Resource availability forecast (e.g., all planned resource outages, including off-line and on-line dates) for the following year. Such forecast shall be made in accordance with Good Utility Practice, and shall include consideration of the Network Customer's peak load data from the most recent summer peak. The Network Customer shall inform the Transmission Owner, in a timely manner, of any changes to the Network Customer's Network Resource availability forecast. In the event that the Transmission Owner determines that such forecast cannot be accommodated due to a transmission constraint on its Transmission System, and such constraint may jeopardize the security of the Transmission System or adversely affect the economic operation of either the Transmission Owner's system or the Network Customer's facilities, the provisions of Section 33 of the Tariff will be implemented.

## **10. Character of Service**

Power and energy delivered under the NITSA and this NOA shall be delivered as three-phase alternating current at a frequency of approximately sixty (60) Hertz, and at the nominal voltages at the delivery and receipt points.

## **11. Transfer of Power and Energy Through Other Systems**

Since the Transmission Owner's Transmission System is, and will be, directly and indirectly connected with other electric systems, it is recognized that, because of the physical and electrical characteristics of the facilities involved, power delivered under the NITSA and this NOA may flow through such other systems. The Transmission Owner and the Network Customer agree to advise other electric systems as deemed appropriate of such scheduled transfers and to attempt to maintain good relationships with affected third parties.

## **12. Notice**

Any Notice or request made to or by any Party regarding this NOA shall be made to the representative of each Party as indicated in the NITSA.

## **13. Incorporation**

The Tariff and the NITSA are incorporated herein and made a part hereof.

**14. Term**

The term of this NOA shall be concurrent with the term of the NITSA between the Parties.

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

Network Customer:

By: \_\_\_\_\_  
Name Title Date

Transmission Owner:

By: \_\_\_\_\_  
Name Title Date

**Louisville Gas and Electric Company**

LGE and KU Joint Pro Forma Open

Access Transmission Tariff

Part V\_ATTACH G

Part V\_ATTACH G NOA

Version 13.0.0

**MAP OF METERING**

Effective On: January 6, 2018



## **Appendix A - Imbalance Events**

### ***I. Application***

This Appendix A states the actions to be taken when a Network Customer experiences a real-time imbalance of +/- five percent of the Network Customer's Annual Peak Load or five megawatts (whichever is greater) ("Imbalance Event"). "Annual Peak Load" is defined as the Network Customer's hour of peak load during the previous calendar year, rounded up to the next full MW. Transmission Owner shall provide the Annual Peak Load to each customer at or prior to the beginning of each calendar year, subject to modification if the customer modifies its delivery points during the course of a calendar year. An Imbalance Event that occurs when load exceeds actual supply, or generation is deficient to scheduled supply, is a negative Imbalance Event ("Negative Imbalance Event"). An Imbalance Event that occurs when actual delivery of energy exceeds load, or generation is in excess of scheduled supply, is a positive Imbalance Event ("Positive Imbalance Event").

**All Imbalance Events must end within ninety (90) minutes of commencement of the Imbalance Event.**

### ***II. Notifications***

If the Network Customer anticipates an Imbalance Event that will last for fifteen (15) minutes or longer, the Network Customer shall notify the BA promptly, informing the BA of the cause and potential duration of such Imbalance Event.

No later than fifteen (15) minutes after the commencement of an Imbalance Event, the Network Customer shall promptly notify the BA of the plan to mitigate such Imbalance Event within ninety (90) minutes of commencement.

In the event that the Network Customer anticipates that it will experience an Imbalance Event due to normal operating conditions (for example, regular morning and evening ramps) in a given day, a single notification in the morning of the same day will satisfy this notification requirement unless conditions change from the anticipated conditions communicated to Transmission Owner, in which case, additional notifications may be required.

### ***III. Mitigation procedures for a Negative Imbalance Event***

For all Negative Imbalance Events that occur prior to April 1, 2017, the Network Customer shall follow the procedures in Attachment 1-EOP-002 to NERC Reliability Standard EOP-002-3.1 applicable to Load Serving Entities. Beginning April 1, 2017, the following procedures shall apply to Negative Imbalance Events that last at least fifteen (15) minutes:

**A. Imbalance Level A**

If the Network Customer experiences a Negative Imbalance Event, then after fifteen (15) consecutive minutes of the commencement of the Negative Imbalance Event the Network Customer shall curtail all non-firm wholesale energy sales (other than those that are recallable only to meet reserve requirements).

**B. Imbalance Level B**

If after the Network Customer curtails all non-firm wholesale energy sales the Negative Imbalance Event is still continuing, then in addition to curtailing non-firm wholesale energy sales (as detailed under Imbalance Level A), the Network Customer shall implement mitigation procedures which may include, but are not limited to:

- Managing its generation resource(s) to increase capability;
- Public appeals for voluntary load reduction;
- Requests to government agencies to implement their programs to achieve necessary energy reductions;
- Reduction of internal utility energy use;
- Use of interruptible load, curtailable load and demand response;
- Voltage reduction;
- Purchasing energy from third parties, regardless of the cost; and
- Making a request (through the BA) to the Reliability Coordinator to declare an Energy Emergency for purposes of triggering the availability of Capacity Benefit Margin (CBM).

**The Network Customer shall take any and all mitigation actions necessary to ensure that a Negative Imbalance Event ends within ninety (90) minutes of the commencement of such Imbalance Event.**

***IV. Mitigation procedures for a Positive Imbalance Event***

For Positive Imbalance Events, within fifteen (15) minutes of the commencement of such

Positive Imbalance Event the Network Customer shall take steps to balance energy and load, including, but not limited to the following options:

- Reduce generation to minimum levels which may include the usage of stabilization fuel;
- Sell surplus generation at a loss; and/or
- Shut down or cycle generating units.

**The Network Customer shall take any and all mitigation actions necessary to ensure that a Positive Imbalance Event ends within ninety (90) minutes of the commencement of such Imbalance Event.**