PPL CORPORATION, PPL RHODE ISLAND HOLDINGS, LLC, NATIONAL GRID USA, and THE NARRAGANSETT ELECTRIC COMPANY Docket No. D-21-09 PPL Corporation and PPL Rhode Island Holdings, LLC's Responses to Division's Second Set of Data Requests Issued on June 11, 2021

Division 2-54

Request:

Please provide a copy of each of the PPL distributed energy resource interconnection tariffs approved by each commission in the PPL jurisdictions.

Response:

Please see the following attachments:

Attachment PPL-DIV 2-54-1 (PPL Electric Utilities Corporation's ("PPL Electric") General Tariff – Rule 11 and Rule 12)

Attachment PPL-DIV 2-54-2 (Louisville Gas & Electric Company ("LG&E"), Kentucky Utilities Company ("KU"), and Old Dominion Power Company's ("ODP") Net Metering Service Tariff)

Attachment PPL-DIV 2-54-3 (LG&E, KU, and ODP's Small Capacity Cogeneration and Small Power Production Qualifying Facilities Tariff)

Attachment PPL-DIV 2-54-4 (LG&E, and KU's Large Capacity Cogeneration and Small Power Production Qualifying Facilities Tariff)

Interconnections for generators participating in the PJM wholesale market are subject to the PJM Governing Documents, which can be found at the following link:

https://pjm.com/library/governing-documents

PPL Electric Utilities Corporation

RULES FOR ELECTRIC SERVICE RULE 12-DISTRIBUTED ENERGY RESOURCE (DER) INTERCONNECTION SERVICE

A. PURPOSE

The Distributed Energy Resource Interconnection Service (DERIS) shall be applied to all new DER interconnections with the distribution system effective January 1, 2021, and as further provided in this Rule. DERs shall include inverter-based alternative energy sources and systems, as defined in the Alternative Energy Portfolio Standards Act of 2004 (73 P.S. §§ 1648.1 - 1648.8), and storage resources (batteries).

B. APPLICATION

- (1) This Rule shall apply to all inverter-based DERs, whose interconnection applications are received on or after January 1, 2021.
- (2) This Rule shall apply to all customers who receive Basic Utility Supply Service under Rate Schedules RS, GS-1, GS-3, and LP-4.

C. DEVICE REQUIREMENTS

(1) Renewable Energy Connection –

The online portal allows customers to apply to interconnect the DER Management Devices with the distribution system. Refer to the REMSI Renewable Energy Connection under PPL Electric's Electric Rates and Rules for additional information. https://www.pplelectric.com/utility/about-us/electric-rates-and-rules.aspx

(2) Smart Inverters —

From January 1, 2021, through December 31, 2021, all new inverters connected to the distribution system must meet: (1) UL 1741 Supplement A as amended or supplemented and (2) the communication requirements under IEEE 1547-2018 as tested by or on behalf of the Company. Beginning January 1, 2022, new inverters connecting to the distribution system must comply with IEEE 1574-2018 and must be certified to UL 1741 Supplement B. The list of smart inverters that meet these requirements will be made publicly available and regularly updated on the Company's REMSI website.

(Continued)

PPL Electric Utilities Corporation

RULE 12 - DISTRIBUTED ENERGY RESOURCE (DER) INTERCONNECTION SERVICE (Continued)

- C. DEVICE REQUIREMENTS (Continued)
 - (2) Smart Inverters (Continued) -

Notwithstanding the above, if a customer installs a new inverter on an existing DER installation or upgrades an existing DER installation after January 1, 2021, the customer may install a replacement inverter of a similar make and model as the existing inverter, provided that any such inverter meets the Commission's applicable standards and requirements set forth in its regulations.

(3) DER Management Device –

All DERs whether Customer-Owned or Third Party-Owned that are applying to interconnect with PPL Electric's distribution system must install smart inverters as defined in Rule 12(C)(2). Additionally, for the term of the pilot program described in Rule 12(D), a DER Management Device owned, installed, and maintained by the Company will be connected to the data port of the smart inverter for any new DER installation. The DER Management Device may use the Meter Network radios to connect wirelessly to PPL Electric's RF mesh network. These devices shall be installed and maintained in accordance with Company's "Rules for Electric Meter and Service Installations (REMSI)". Refer to the REMSI DER Management Device section as well as the Commission-approved Settlement and the Pilot Implementation Plan filed at Docket No. P-2019-3010128 for additional information.

D. PILOT PROGRAM

Beginning January 1, 2021, the Company will conduct a pilot program to test and evaluate: (1) the costs and benefits to the distribution system operation and design of monitoring DERs through the DER Management Devices as compared to maintaining distribution system status visibility through other means (e.g. automated meter reading equipment, ADMS systems, modeling) and (2) the costs and benefits to the distribution system operation of active management of DERs through DER management devices as compared to the benefits available through the use of inverter autonomous grid support functions.

(Continued)

PPL Electric Utilities Corporation

RULE 12 - DISTRIBUTED ENERGY RESOURCE (DER) INTERCONNECTION SERVICE (Continued)

D. PILOT PROGRAM (Continued)

Two control groups for the pilot program will be established. The first group shall include any DERs connected during the pilot program to the first 75 circuits for which interconnection applications are received by the Company on or after January 1, 2021. The second group shall include the first 1,000 new DERs installed in the Company's service territory on or after January 1, 2021. DERs connected during the pilot program in the first group shall count toward the 1,000 DERs in the second group. After the second group comprises 1,000 DERs, DERs interconnected to the first 75 circuits will still be added to the first group.

For both control groups, DER inverters will operate under autonomous settings only. While the Company may monitor DER operations in the control group by collecting data through the DER Management Devices, the Company shall not make operational decisions regarding the distribution system based on that information. For DERs that are not part of the control groups, the Company shall be permitted to actively manage the grid support functions of DER inverters using the DER Management Devices and the Company's Distributed Energy Resources Management System (DERMS) and may make operational decisions based on DER operational information obtained through the DER Management Devices.

The pilot program will begin January 1, 2021 and will end three years after the control groups are established. Refer to the Commission-approved Settlement and the Pilot Implementation Plan filed at Docket No. P-2019-3010128 for more information on the details and design of the pilot program.

E. ANNUAL REPORTS

Pursuant to the Commission-approved Settlement and the Pilot Implementation Plan filed at Docket No. P-2019-3010128, the Company shall file annual reports with the Commission providing detailed quantitative information germane to evaluation of the results of the pilot program. The reports shall be publicly available and shall not contain any identifying customer information. The annual reports shall be filed within 30 days following the end of each program year.

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Kentucky Utilities Company

P.S.C. No. 19, First Revision of Original Sheet No. 57 Canceling P.S.C. No. 19, Original Sheet No. 57

Standard Rate Rider

NMS **Net Metering Service**

APPLICABLE

In all territory served.

AVAILABILITY

Available to any Customer-generator who owns and operates a generating facility located on Customer's premises that generates electricity using solar, wind, biomass or biogas, or hydro energy in parallel with Company's electric distribution system to provide all or part of Custome's electrical requirements, and who executes Company's written Application for Interconnection and Net Metering. The generation facility shall be limited to a maximum rated capacity of 45 kilowatts. This Standard Rate Rider NMS is intended to comply with all provisions of the Interconnection and Т Net Metering Guidelines approved by the Kentucky Public Service Commission, which can be found on-line at www.psc.ky.gov as Appendix A to the January 8, 2009 Order in Administrative Case No. 2008-00169.

DEFINITIONS

"Billing period" shall be the time period between the dates on which Company issues the Customer's bills.

"Billing Period Credit" shall be the electricity generated by the Customer that flows into the electric system and which exceeds the electricity supplied to the Customer from the electric system during any billing period. A billing period credit is a kWh-denominated electricity credit only, not a monetary credit.

METERING AND BILLING

Net metering service shall be measured using a single meter or, as determined by Company, additional meters and shall be measured in accordance with standard metering practices by metering equipment capable of registering power flow in both directions for each time period defined by the applicable rate schedule. This net metering equipment shall be provided without any cost to Customer. This provision does not relieve Customer's responsibility to pay metering costs embedded in Company's Commission-approved base rates. Additional meters, requested by Customer, will be provided at Customer's expense.

If electricity generated by Customer and fed back to Company's system exceeds the electricity supplied to Customer from the system during a billing period, Customer shall receive a billingperiod credit for the net delivery on Customer's bill for the succeeding billing periods. If Customer takes service under a time-of-use or time-of-day rate schedule, Company will apply billing-period credits Customer creates in a particular time-of-day or time-of-use block only to offset net energy consumption in the same time-of-day or time-of-use block; such credits will not be used to offset net energy consumption in other time-of-day or time-of-use blocks in any billing period. Any such unused excess billing-period credits will be carried forward and drawn on by Customer as needed. Unused excess billing-period credits existing at the time Customer's service is terminated end with Customer's account and are not transferrable between Customers or locations.

DATE OF ISSUE: November 25, 2019

DATE EFFECTIVE: With Service Rendered On and After January 1, 2020

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Lexington, Kentucky

P.S.C. No. 19, Original Sheet No. 57.1

Standard Rate Rider

NMS Net Metering Service

NET METERING SERVICE INTERCONNECTION GUIDELINES

General – Customer shall operate the generating facility in parallel with Company's system under the following conditions and any other conditions required by Company where unusual circumstances arise not covered herein:

- Customer to own, operate, and maintain all generating facilities on their premises. Such facilities shall include, but not be limited to, necessary control equipment to synchronize frequency, voltage, etc., between Customer's and Company's system as well as adequate protective equipment between the two systems. Customer's voltage at the point of interconnection will be the same as Company's system voltage.
- Customer will be responsible for operating all generating facilities owned by Customer, except as specified hereinafter. Customer will maintain its system in synchronization with Company's system.
- 3. Customer will be responsible for any damage done to Company's equipment due to failure of Customer's control, safety, or other equipment.
- 4. Customer agrees to inform Company of any changes it wishes to make to its generating or associated facilities that differ from those initially installed and described to Company in writing and obtain prior approval from Company.
- 5. Company will have the right to inspect and approve Customer's facilities described herein, and to conduct any tests necessary to determine that such facilities are installed and operating properly; however, Company will have no obligation to inspect, witness tests, or in any manner be responsible for Customer's facilities or operation thereof.
- 6. Customer assumes all responsibility for the electric service on Customer's premises at and from the point of delivery of electricity from Company and for the wires and equipment used in connection therewith, and will protect and save Company harmless from all claims for injury or damage to persons or property occurring on Customer's premises or at and from the point of delivery of electricity from Company, occasioned by such electricity or said wires and equipment, except where said injury or damage will be shown to have been occasioned solely by the negligence or willful misconduct of Company.

<u>Level 1</u> – A Level 1 installation is defined as an inverter-based generator certified as meeting the requirements of Underwriters Laboratories Standard 1741 and meeting the following conditions:

- 1. The aggregated net metering generation on a radial distribution circuit will not exceed 15% of the line section's most recent one hour peak load. A line section is the smallest part of the primary distribution system the generating facility could remain connected to after operation of any sectionalizing devices.
- 2. The aggregated net metering generation on a shared singled-phase secondary will not exceed 20 kVA or the nameplate rating of the service transformer.
- 3. A single-phase net metering generator interconnected on the center tap neutral of a 240 volt service shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.

DATE OF ISSUE: May 14, 2019

DATE EFFECTIVE: With Service Rendered On and After July 1, 2015

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Lexington, Kentucky

P.S.C. No. 19, Original Sheet No. 57.2

Standard Rate Rider

NMS Net Metering Service

NET METERING SERVICE INTERCONNECTION GUIDELINES (continued)

- 4. A net metering generator interconnected to Company's three-phase, three-wire primary distribution lines, shall appear as a phase-to-phase connection to Company's primary distribution line.
- 5. A net metering generator interconnected to Company's three-phase, four-wire primary distribution lines, shall appear as an effectively grounded source to Company's primary distribution line.
- 6. A net metering generator will not be connected to an area or spot network.
- 7. There are no identified violations of the applicable provisions of IEEE 1547, "Standard for Interconnecting Distributed Resources with Electric Power Systems".
- 8. Company will not be required to construct any facilities on its own system to accommodate the net metering generator.

Customer desiring a Level 1 interconnection shall submit a "LEVEL 1 - Application for Interconnection and Net Metering." Company shall notify Customer within 20 business days as to whether the request is approved or, if denied, the reason(s) for denial. If additional information is required, Company will notify Customer, and the time between notification and submission of the information shall not be counted towards the 20 business days. Approval is contingent upon an initial inspection and witness test at the discretion of Company.

Level 2 – A Level 2 installation is defined as generator that is not inverter-based; that uses equipment not certified as meeting the requirements of Underwriters Laboratories Standard 1741, or that does not meet one or more of the conditions required of a Level 1 net metering generator. A Level 2 Application will be approved if the generating facility meets Company's technical interconnection T requirements. Those requirements are available on line at <u>www.lge-ku.com</u> and upon request.

Customer desiring a Level 2 interconnection shall submit a "LEVEL 2 - Application for Interconnection and Net Metering." Company shall notify Customer within 30 business days as to whether the request is approved or, if denied, the reason(s) for denial. If additional information is required, Company will notify Customer, and the time between notification and submission of the information shall not be counted towards the 30 business days. Approval is contingent upon an initial inspection and witness test at the discretion of Company.

Customer submitting a "Level 2 - Application for Interconnection and Net Metering" will provide a non-refundable inspection and processing fee of \$100, and in the event that Company T determines an impact study to be necessary, shall be responsible for any reasonable costs of up to \$1,000 of documented costs for the initial impact study.

Additional studies requested by Customer shall be at Customer's expense.

DATE OF ISSUE: May 14, 2019

DATE EFFECTIVE: With Service Rendered On and After May 1, 2019

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Lexington, Kentucky

P.S.C. No. 19, Original Sheet No. 57.3

Standard Rate Rider

NMS Net Metering Service

CONDITIONS OF INTERCONNECTION

Customer may operate his net metering generator in parallel with Company's system when complying with the following conditions:

- Customer shall install, operate, and maintain, at Customer's sole cost and expense, any control, protective, or other equipment on Customer's system required by Company's technical interconnection requirements based on IEEE 1547, NEC, accredited testing laboratories, and the manufacturer's suggested practices for safe, efficient and reliable operation of the net metering generating facility in parallel with Company's system. Customer bears full responsibility for the installation, maintenance and safe operation of the net metering generating facility. Upon reasonable request from Company, Customer shall demonstrate compliance.
- 2. Customer shall represent and warrant compliance of the net metering generator with:
 - a. any applicable safety and power standards established by IEEE and accredited testing laboratories;
 - b. NEC, as may be revised from time-to-time;
 - c. Company's rules and regulations and Terms and Conditions, as may be revised by timeto-time by the Kentucky Public Service Commission;
 - d. the rules and regulations of the Kentucky Public Service Commission, as may be revised by time-to-time by the Kentucky Public Service Commission:
 - e. all other local, state, and federal codes and laws, as may be in effect from time-to-time.
- Any changes or additions to Company's system required to accommodate the net metering generator shall be Customer's financial responsibility and Company shall be reimbursed for such changes or additions prior to construction.
- 4. Customer shall operate the net metering generator in such a manner as not to cause undue fluctuations in voltage, intermittent load characteristics or otherwise interfere with the operation of Company's electric system. Customer shall so operate the generating facility in such a manner that no adverse impacts will be produced thereby to the service quality rendered by Company to any of its other Customers or to any electric system interconnected with Company's electric system.
- 5. Customer shall be responsible for protecting, at Customer's sole cost and expense, the net metering generating facility from any condition or disturbance on Company's electric system, including, but not limited to, voltage sags or swells, system faults, outages, loss of a single phase of supply, equipment failures, and lightning or switching surges, except that Company shall be responsible for repair of damage caused to the net metering generator resulting solely from the negligence or willful misconduct on the part of Company.
- 6. Following the initial testing and inspection of the generating facility and upon reasonable advance notice to Customer, Company shall have access at reasonable times to the generating facility to perform reasonable on-site inspections to verify that the installation, maintenance and operation of the net metering generator comply with the requirements of this rider.

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DATE OF ISSUE: May 14, 2019

DATE EFFECTIVE: With Service Rendered On and After May 1, 2019

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Lexington, Kentucky

P.S.C. No. 19, Original Sheet No. 57.4

Standard Rate Rider

NMS Net Metering Service

CONDITIONS OF INTERCONNECTION (continued)

7. Where required by Company, Customer shall furnish and install on Customer's side of the point of interconnection a safety disconnect switch which shall be capable of fully disconnecting Customer's net metering generator from Company's electric service under the full rated conditions of Customer's net metering generator. The external disconnect switch (EDS) shall be located adjacent to Company's meters or the location of the EDS shall be noted by placing a sticker on the meter, and shall be of the visible break type in a metal enclosure which can be secured by a padlock. If the EDS is not located directly adjacent to the meter, Customer shall be responsible for ensuring the location of the EDS is properly and legibly identified for so long as the net metering generator is operational.

The disconnects witch shall be accessible to Company personnel at all times. Company may waive the requirement for an external disconnect switch for a net metering generator at its sole discretion, and on a case by case basis.

- Company shall have the right and authority at Company's sole discretion to isolate the generating facility or require Customer to discontinue operation of the net metering generator T if Company believes that:
 - a. continued interconnection and parallel operation of the net metering generator with Company's electric system creates or contributes (or may create or contribute) to a system emergency on either Company's or Customer's electric system;
 - b. the net metering generator is not in compliance with the requirements of this rider, and T the non-compliance adversely affects the safety, reliability or power quality of Company's electric system; or
 - c. the net metering generator interferes with the operation of Company's electric system. In non-emergency situations, Company shall give Customer notice of noncompliance including a description of the specific noncompliance condition and allow Customer a reasonable time to cure the noncompliance prior to isolating the Generating Facilities. In emergency situations, where Company is unable to immediately isolate or cause Customer to isolate only the net metering generator, Company may isolate Customer's entire facility.
- 9. Customer agrees that, without the prior written permission from Company, no changes shall be made to the generating facility as initially approved. Increases in net metering generator capacity will require a new "Application for Interconnection and Net Metering" which will be evaluated on the same basis as any other new application. Repair and replacement of existing generating facility components with like components that meet UL 1741 certification requirements for Level 1 facilities and not resulting in increases in net metering generator capacity is allowed without approval.
- 10. Customer shall protect, indemnify and hold harmless Company and its directors, officers, employees, agents, representatives and contractors against and from all loss, claims, actions or suits, including costs and attorneys' fees, for or on account of any injury or death

DATE OF ISSUE: May 14, 2019

DATE EFFECTIVE: With Service Rendered On and After May 1, 2019

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Lexington, Kentucky

P.S.C. No. 19, Original Sheet No. 57.5

Standard Rate Rider

NMS Net Metering Service

CONDITIONS OF INTERCONNECTION (continued)

of persons or damage to property caused by Customer or Customer's employees, agents, representatives and contractors in tampering with, repairing, maintaining or operating Customer's net metering generator or any related equipment or any facilities owned by Company except where such injury, death or damage was caused or contributed to by the fault or negligence of Company or its employees, agents, representatives or contractors. The liability of Company to Customer for injury to person and property shall be governed by the tariff(s) for the class of service under which Customer is taking service.

- 11. Customer shall maintain general liability insurance coverage (through a standard homeowner's, commercial or other policy) for generating facilities. Customer shall upon request provide Company with proof of such insurance at the time that application is made for net metering.
- 12. By entering into an Interconnection Agreement, or by inspection, if any, or by non-rejection, or by approval, or in any other way, Company does not give any warranty, express or implied, as to the adequacy, safety, compliance with applicable codes or requirements, or as to any other characteristics, of the generating facility equipment, controls, and protective relays and equipment.
- 13. Customer's generating facility is transferable to other persons or service locations only after notification to Company has been made and verification that the installation is in compliance with this tariff. Upon written notification that an approved generating facility is being transferred to another person, Customer, or location, Company will verify that the installation is in compliance with this tariff and provide written notification to the Customer(s) within 20 business days. If the installation is no longer in compliance with this tariff, Company will notify Customer in writing and list what must be done to place the facility in compliance.

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14. Customer shall retain any and all Renewable Energy Credits (RÉCs) generated by Customer's generating facilities.

TERMS AND CONDITIONS

Except as provided herein, service will be furnished under Company's Terms and Conditions applicable hereto.

DATE OF ISSUE: May 14, 2019

DATE EFFECTIVE: With Service Rendered On and After May 1, 2019

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Lexington, Kentucky

P.S.C. No. 19, Original Sheet No. 57.6

Standard	Rate	Rider
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Net Metering Service			
LEVEL 1			
Application for Interconnection and Net Metering Use this application form only for a generating facility that is inverter based and certified by a nationally recognized testing laboratory to meet the requirements of UL 1741.			
Submit this Application to:			
Kentucky Utilities Company, Attn: Customer Commitment, P. O. Box 32010, Louisville, KY 40232			
If you have questions regarding this Application or its status, contact KU at:			
502-627-2202 or Customer.commitment@lge-ku.com			
Customer Name: Account Number:			
Customer Address:			
Customer Phone No.: Customer E-mail Address:			
Project Contact Person:			
Phone No.: E-mail Address (Optional):			
Provide names and contact information for other contractors, installers, or engineering firms involved in the design and installation of the generating facilities:			
Energy Source:SolarWindHydroBiogasBiomass			
Inverter Power Rating: Inverter Voltage Rating:			
Power Rating of Energy Source (i.e., solar panels, wind turbine):			
Is Battery Storage Used:NoYes If Yes, Battery Power Rating:			
Attach documentation showing that inverter is certified by a nationally recognized testing laboratory to meet the requirements of UL 1741.			
Attach site drawing or sketch showing location of Utility's meter, energy source, (optional: Utility accessible disconnect switch) and inverter.			
Attach single line drawing showing all electrical equipment from the Utility's metering location to the energy source including switches, fuses, breakers, panels, transformers, inverters, energy source, wire size, equipment ratings, and transformer connections.			
Expected Start-up Date:			

NMS

DATE OF ISSUE: May 14, 2019

DATE EFFECTIVE: With Service Rendered On and After November 1, 2010

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Lexington, Kentucky

Issued by Authority of an Order of the Public Service Commission in Case No. 2009-00548 dated July 30, 2010 and 2010-00204 dated September 30, 2010

P.S.C. No. 19, Original Sheet No. 57.7

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NMS	
Net Metering Service	

LEVEL 2

Application for Interconnection and Net Metering

Use this application form when a generating facility is not inverter-based or is not certified by a nationally recognized testing laboratory to meet the requirements of **UL** 1741 or does not meet any of the additional conditions under Level 1.

Submit this Application, along with an application fee of \$100, to:

Kentucky Utilities Company, Attn: Customer Commitment, P. O. Box 32010, Louisville, KY 40232

If you have questions regarding this Application or its status, contact KU at:

502-627-2202 or Customer.commitment@lge-ku.com

Account Number:

Customer Name: _____ Customer Address: ____

Phone No.:

Project Contact Person:

_ E-mail Address (Optional):

Provide names and contact information for other contractors, installers, or engineering firms involved in the design and installation of the generating facilities:

Total Generating Capacity of Generating Facility:

Type of Generator: ____Inverter-Based ____Synchronous ____Induction

Power Source: _____Solar _____Wind _____Hydro _____Biogas _____Biomass

Adequate documentation and information must be submitted with this application to be considered complete. Typically this should include the following:

- 1. Single-line diagram of Customer's system showing all electrical equipment from the generator to the point of interconnection with the Utility's distribution system, including generators, transformers, switchgar, switches, breakers, fuses, voltage transformers, current transformers, wire sizes, equipment ratings, and transformer connections.
- 2. Control drawings for relays and breakers.
- 3. Site Plans showing the physical location of major equipment.
- Relevant ratings of equipment. Transformer information should include capacity ratings, voltage ratings, winding arrangements, and impedance.
- 5. If protective relays are used, settings applicable to the interconnection protection. If programmable relays are used, a description of how the relay is programmed to operate as applicable to interconnection protection.
- 6. A description of how the generator system will be operated including all modes of operation.
- 7. For inverters, the manufacturer name, model number, and AC power rating. For certified inverters, attach documentation showing that inverter is certified by a nationally recognized testing laboratory to meet the requirements of **UL** 1741.
- 8. For synchronous generators, manufacturer and model number, nameplate ratings, and impedance data (Xd, Xd, & Xd).

9. For induction generators, manufacturer and model number, nameplate ratings, and locked rotor current.

Customer Signature:

Date:

DATE OF ISSUE: May 14, 2019

DATE EFFECTIVE: With Service Rendered On and After May 1, 2019

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Lexington, Kentucky

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Louisville Gas and Electric Company

P.S.C. Electric No. 12, First Revision of Original Sheet No. 57 Canceling P.S.C. Electric No. 12, Original Sheet No. 57

Standard Rate Rider

NMS Net Metering Service

APPLICABLE

In all territory served.

AVAILABILITY

Available to any Customer-generator who owns and operates a generating facility located on Customer's premises that generates electricity using solar, wind, biomass or biogas, or hydro energy in parallel with Company's electric distribution system to provide all or part of Customer's electrical requirements, and who executes Company's written Application for Interconnection and Net Metering. The generation facility shall be limited to a maximum rated capacity of 45 kilowatts. This Standard Rate Rider is intended to comply with all provisions of the Interconnection and Net Metering Guidelines approved by the Kentucky Public Service Commission, which can be found on-line at <u>www.psc.ky.gov</u> as Appendix A to the January 8, 2009 Order in Administrative Case No. 2008-00169.

DEFINITIONS

"Billing period" shall be the time period between the dates on which Company issues the Customer's bills.

"Billing Period Credit" shall be the electricity generated by the Customer that flows into the electric system and which exceeds the electricity supplied to the Customer from the electric system during any billing period. A billing period credit is a kWh-denominated electricity credit only, not a monetary credit.

METERING AND BILLING

Net metering service shall be measured using a single meter or, as determined by Company, additional meters and shall be measured in accordance with standard metering practices by metering equipment capable of registering power flow in both directions for each time period defined by the applicable rate schedule. This net metering equipment shall be provided without any cost to Customer. This provision does not relieve Customer's responsibility to pay metering costs embedded in Company's Commission-approved base rates. Additional meters, requested by Customer, will be provided at Customer's expense.

If electricity generated by Customer and fed back to Company's system exceeds the electricity supplied to Customer from the system during a billing period, Customer shall receive a billing-period credit for the net delivery on Customer's bill for the succeeding billing periods. If Customer takes service under a time-of-use or time-of-day rate schedule, Company will apply billing-period credits Customer creates in a particular time-of-day or time-of-use block only to offset net energy consumption in the same time-of-day or time-of-use block; such credits will not be used to offset net energy consumption in other time-of-day or time-of-use blocks in any billing period. Any such unused excess billing-period credits existing at the time Customer's service is terminated end with Customer's account and are not transferrable between Customers or locations.

DATE OF ISSUE: November 25, 2019

DATE EFFECTIVE: With Service Rendered On and After January 1, 2020

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Louisville, Kentucky

P.S.C. Electric No. 12, Original Sheet No. 57.1

Standard Rate Rider

NMS Net Metering Service

NET METERING SERVICE INTERCONNECTION GUIDELINES

<u>General</u> – Customer shall operate the generating facility in parallel with Company's system under the following conditions and any other conditions required by Company where unusual circumstances arise not covered herein:

- Customer to own, operate, and maintain all generating facilities on their premises. Such facilities shall include, but not be limited to, necessary control equipment to synchronize frequency, voltage, etc., between Customer's and Company's system as well as adequate protective equipment between the two systems. Customer's voltage at the point of interconnection will be the same as Company's system voltage.
- 2. Customer will be responsible for operating all generating facilities owned by Customer, except as specified hereinafter. Customer will maintain its system in synchronization with Company's system.
- 3. Customer will be responsible for any damage done to Company's equipment due to failure of Customer's control, safety, or other equipment.
- 4. Customer agrees to inform Company of any changes it wishes to make to its generating or associated facilities that differ from those initially installed and described to Company in writing and obtain prior approval from Company.
- 5. Company will have the right to inspect and approve Customer's facilities described herein, and to conduct any tests necessary to determine that such facilities are installed and operating properly; however, Company will have no obligation to inspect, witness tests, or in any manner be responsible for Customer's facilities or operation thereof.
- 6. Customer assumes all responsibility for the electric service on Customer's premises at and from the point of delivery of electricity from Company and for the wires and equipment used in connection therewith, and will protect and save Company harmless from all claims for injury or damage to persons or property occurring on Customer's premises or at and from the point of delivery of electricity from Company, occasioned by such electricity or said wires and equipment, except where said injury or damage will be shown to have been occasioned solely by the negligence or willful misconduct of Company.

<u>Level 1</u> – A Level 1 installation is defined as an inverter-based generator certified as meeting the requirements of Underwriters Laboratories Standard 1741 and meeting the following conditions:

- The aggregated net metering generation on a radial distribution circuit will not exceed 15% of the line section's most recent one hour peak load. A line section is the smallest part of the primary distribution system the generating facility could remain connected to after operation of any sectionalizing devices.
- 2. The aggregated net metering generation on a shared singled-phase secondary will not exceed 20 kVA or the nameplate rating of the service transformer.
- 3. A single-phase net metering generator interconnected on the center tap neutral of a 240 volt service shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.

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ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Louisville, Kentucky

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Louisville Gas and Electric Company

P.S.C. Electric No. 12, Original Sheet No. 57.2

Standard Rate Rider

NMS Net Metering Service

NET METERING SERVICE INTERCONNECTION GUIDELINES (continued)

- 4. A net metering generator interconnected to Company's three-phase, three-wire primary distribution lines, shall appear as a phase-to-phase connection to Company's primary distribution line.
- 5. A net metering generator interconnected to Company's three-phase, four-wire primary distribution lines, shall appear as an effectively grounded source to Company's primary distribution line.
- 6. A net metering generator will not be connected to an area or spot network.
- 7. There are no identified violations of the applicable provisions of IEEE 1547, "Standard for Interconnecting Distributed Resources with Electric Power Systems".
- 8. Company will not be required to construct any facilities on its own system to accommodate the net metering generator.

Customer desiring a Level 1 interconnection shall submit a "LEVEL 1 - Application for Interconnection and Net Metering." Company shall notify Customer within 20 business days as to whether the request is approved or, if denied, the reason(s) for denial. If additional information is required, Company will notify Customer, and the time between notification and submission of the information shall not be counted towards the 20 business days. Approval is contingent upon an initial inspection and witness test at the discretion of Company.

Level 2 – A Level 2 installation is defined as generator that is not inverter-based; that uses equipment not certified as meeting the requirements of Underwriters Laboratories Standard 1741; or that does not meet one or more of the conditions required of a Level 1 net metering generator. A Level 2 Application will be approved if the generating facility meets Company's technical interconnection requirements. Those requirements are available on line at <u>www.lge-ku.com</u> and upon request.

Customer desiring a Level 2 interconnection shall submit a "LEVEL 2 - Application for Interconnection and Net Metering." Company shall notify Customer within 30 business days as to whether the request is approved or, if denied, the reason(s) for denial. If additional information is required, Company will notify Customer, and the time between notification and submission of the information shall not be counted towards the 30 business days. Approval is contingent upon an initial inspection and witness test at the discretion of Company.

Customer submitting a "Level 2 - Application for Interconnection and Net Metering" will provide a non-refundable inspection and processing fee of \$100, and in the event that Company determines an impact study to be necessary, shall be responsible for any reasonable costs of up to \$1,000 of documented costs for the initial impact study.

Additional studies requested by Customer shall be at Customer's expense.

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P.S.C. Electric No. 12, Original Sheet No. 57.3

Standard Rate Rider

NMS Net Metering Service

CONDITIONS OF INTERCONNECTION

Customer may operate his net metering generator in parallel with Company's system when complying with the following conditions:

- Customer shall install, operate, and maintain, at Customer's sole cost and expense, any control, protective, or other equipment on Customer's system required by Company's technical interconnection requirements based on IEEE 1547, NEC, accredited testing laboratories, and the manufacturer's suggested practices for safe, efficient and reliable operation of the net metering generating facility in parallel with Company's system. Customer bears full responsibility for the installation, maintenance and safe operation of the net metering generating facility. Upon reasonable request from Company, Customer shall demonstrate compliance.
- 2. Customer shall represent and warrant compliance of the net metering generator with:
 - a. any applicable safety and power standards established by IEEE and accredited testing laboratories;
 - b. NEC, as may be revised from time-to-time;
 - c. Company's rules and regulations and Terms and Conditions, as may be revised by timeto-time by the Kentucky Public Service Commission;
 - d. the rules and regulations of the Kentucky Public Service Commission, as may be revised by time-to-time by the Kentucky Public Service Commission:
 - e. all other local, state, and federal codes and laws, as may be in effect from time-to-time.
- Any changes or additions to Company's system required to accommodate the net metering generator shall be Customer's financial responsibility and Company shall be reimbursed for such changes or additions prior to construction.
- 4. Customer shall operate the net metering generator in such a manner as not to cause undue fluctuations in voltage, intermittent load characteristics or otherwise interfere with the operation of Company's electric system. Customer shall so operate the generating facility in such a manner that no adverse impacts will be produced thereby to the service quality rendered by Company to any of its other Customers or to any electric system interconnected with Company's electric system.
- 5. Customer shall be responsible for protecting, at Customer's sole cost and expense, the net metering generating facility from any condition or disturbance on Company's electric system, including, but not limited to, voltage sags or swells, system faults, outages, loss of a single phase of supply, equipment failures, and lightning or switching surges, except that Company shall be responsible for repair of damage caused to the net metering generator resulting solely from the negligence or willful misconduct on the part of Company.
- 6. Following the initial testing and inspection of the generating facility and upon reasonable advance notice to Customer, Company shall have access at reasonable times to the generating facility to perform reasonable on-site inspections to verify that the installation, maintenance and operation of the net metering generator comply with the requirements of this rider.

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Louisville Gas and Electric Company

P.S.C. Electric No. 12, Original Sheet No. 57.4

Standard Rate Rider

Net Metering Service

NMS

CONDITIONS OF INTERCONNECTION (continued)

7. Where required by Company, Customer shall furnish and install on Customer's side of the point of interconnection a safety disconnect switch which shall be capable of fully disconnecting Customer's net metering generator from Company's electric service under the full rated conditions of Customer's net metering generator. The external disconnect switch (EDS) shall be located adjacent to Company's meters or the location of the EDS shall be noted by placing a sticker on the meter, and shall be of the visible break type in a metal enclosure which can be secured by a padlock. If the EDS is not located directly adjacent to the meter, Customer shall be responsible for ensuring the location of the EDS is properly and legibly identified for so long as the net metering generator is operational.

The disconnectswitch shall be accessible to Company personnel at all times. Company may waive the requirement for an external disconnect switch for a net metering generator at its sole discretion, and on a case by case basis.

- Company shall have the right and authority at Company's sole discretion to isolate the generating facility or require Customer to discontinue operation of the net metering generator T if Company believes that:
 - a. continued interconnection and parallel operation of the net metering generator with Company's electric system creates or contributes (or may create or contribute) to a system emergency on either Company's or Customer's electric system;
 - b. the net metering generator is not in compliance with the requirements of this rider and T the non-compliance adversely affects the safety, reliability or power quality of Company's electric system; or
 - c. the net metering generator interferes with the operation of Company's electric system. In non-emergency situations, Company shall give Customer notice of noncompliance including a description of the specific noncompliance condition and allow Customer a reasonable time to cure the noncompliance prior to isolating the Generating Facilities. In emergency situations, where Company is unable to immediately isolate or cause Customer to isolate only the net metering generator, Company may isolate Customer's entire facility.
- 9. Customer agrees that, without the prior written permission from Company, no changes shall be made to the generating facility as initially approved. Increases in net metering generator capacity will require a new "Application for Interconnection and Net Metering" which will be evaluated on the same basis as any other new application. Repair and replacement of existing generating facility components with like components that meet UL 1741 certification requirements for Level 1 facilities and not resulting in increases in net metering generator capacity is allowed without approval.
- 10. Customer shall protect, indemnify and hold harmless Company and its directors, officers, employees, agents, representatives and contractors against and from all loss, claims, actions or suits, including costs and attorneys' fees, for or on account of any injury or death

DATE OF ISSUE: May 14, 2019

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ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Louisville, Kentucky

P.S.C. Electric No. 12, Original Sheet No. 57.5

Standard Rate Rider

NMS Net Metering Service

CONDITIONS OF INTERCONNECTION (continued)

of persons or damage to property caused by Customer or Customer's employees, agents, representatives and contractors in tampering with, repairing, maintaining or operating Customer's net metering generator or any related equipment or any facilities owned by Company, except where such injury, death or damage was caused or contributed to by the fault or negligence of Company or its employees, agents, representatives or contractors. The liability of Company to Customer for injury to person and property shall be governed by the tariff(s) for the class of service under which Customer is taking service.

- 11. Customer shall maintain general liability insurance coverage (through a standard homeowner's, commercial or other policy) for generating facilities. Customer shall upon request provide Company with proof of such insurance at the time that application is made for net metering.
- 12. By entering into an Interconnection Agreement, or by inspection, if any, or by non-rejection, or by approval, or in any other way, Company does not give any warranty, express or implied, as to the adequacy, safety, compliance with applicable codes or requirements, or as to any other characteristics, of the generating facility equipment, controls, and protective relays and equipment.
- 13. Customer's generating facility is transferable to other persons or service locations only after notification to Company has been made and verification that the installation is in compliance with this tariff. Upon written notification that an approved generating facility is being transferred to another person, Customer, or location, Company will verify that the installation T is in compliance with this tariff and provide written notification to the Customer(s) within 20 business days. If the installation is no longer in compliance with this tariff, Company will notify Customer in writing and list what must be done to place the facility in compliance.
- 14. Customer shall retain any and all Renewable Energy Credits (RECs) generated by Customer's generating facilities.

TERMS AND CONDITIONS

Except as provided herein, service will be furnished under Company's Terms and Conditions applicable hereto.

DATE OF ISSUE: May 14, 2019

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ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Louisville, Kentucky

P.S.C. Electric No. 12, Original Sheet No. 57.6

Standard Rate Rider

Net Metering Service
LEVEL 1
Application for Interconnection and Net Metering Use this application form only for a generating facility that is inverter based and certified by a nationally recognized testing laboratory to meet the requirements of UL 1741.
Submit this Application to:
Louisville Gas and Electric Company, Attn: Customer Commitment, P. O. Box 32010, Louisville, KY 40232
If you have questions regarding this Application or its status, contact LG&E at:
502-627-2202 or Customer.commitment@lge-ku.com
Customer Name: Account Number:
Customer Address:
Customer Phone No.: Customer E-mail Address:
Project Contact Person:
Phone No.: E-mail Address (Optional):
Provide names and contact information for other contractors, installers, or engineering firms involved in the design and installation of the generating facilities:
Energy Source:SolarWindHydroBiogasBiomass
Inverter Manufacturer and Model #:
Inverter Power Rating: Inverter Voltage Rating:
Power Rating of Energy Source (i.e., solar panels, wind turbine):
Is Battery Storage Used:NoYes If Yes, Battery Power Rating:
Attach documentation showing that inverter is certified by a nationally recognized testing laboratory to meet the requirements of UL 1741.
Attach site drawing or sketch showing location of Utility's meter, energy source, (optional: Utility accessible disconnect switch) and inverter.
Attach single line drawing showing all electrical equipment from the Utility's metering location to the energy source including switches, fuses, breakers, panels, transformers, inverters, energy source, wire size, equipment ratings, and transformer connections.
Expected Start-up Date:

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P.S.C. Electric No. 12, Original Sheet No. 57.7

Standard Rate Rider

NMS **Net Metering Service**

LEVEL 2

<u>Application for Interconnection and Net Metering</u> Use this application form when a generating facility is not inverter-based or is not certified by a nationally recognized testing laboratory to meet the requirements of UL 1741 or does not meet any of the additional conditions under Level 1.				
Submit this Application, along with an application fee of \$100, to:				
Louisville Gas and Electric Company, Attn: Customer Commitment, P. O. Box 32010, Louisville, KY 40232				
If you have questions regarding this Application or its status, contact LG&E at:				
502-627-2202 or Customer.commitment@lge-ku.com				
Customer Name: Account Number:				
Customer Address:				
Project Contact Person:				
Phone No.: E-mail Address (Optional):				
Provide names and contact information for other contractors, installers, or engineering firms involved in the design and installation of the generating facilities:				
Total Generating Capacity of Generating Facility:				
Type of Generator:Inverter-BasedSynchronousInduction				
Power Source:SolarWindHydroBiogasBiomass				
Adequate documentation and information must be submitted with this application to be considered complete. Typically this should include the following:				
 Single-line diagram of Customer's system showing all electrical equipment from the generator to the point of interconnection with the Utility's distribution system, including generators, transformers, switchgear, switches, breakers, fuses, voltage transformers, current transformers, wire sizes, equipment ratings, and transformer connections. 				
2. Control drawings for relays and breakers.				
 Site Plans snowing the physical location of major equipment. Relevant ratings of equipment. Transformer information should include capacity ratings, voltage ratings winding 				
arrangements, and impedance.				
5. If protective relays are used, settings applicable to the interconnection protection. If programmable relays are used, a				
A description of how the generator system will be operated as applicable to interconnection protection.				
7. For inverters, the manufacturer name, model number, and AC power rating. For certified inverters, attach documentation				
showing that inverter is certified by a nationally recognized testing laboratory to meet the requirements of UL 1741.				
8. For synchronous generators, manufacturer and model number, nameplate ratings, and impedance data (Xd, Xd, & Xd).				
9. For induction generators, manufacturer and model number, nameplate ratings, and locked rotor current.				
Customer Signature: Date:				

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DATE EFFECTIVE: With Service Rendered On and After May 1, 2019

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Louisville, Kentucky

Issued by Authority of an Order of the Public Service Commission in Case No. 2018-00295 dated April 30, 2019

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S.C.C. No. 18, Original Sheet No. 57

Standard Rate Rider

NMS Net Metering Service

APPLICABLE

In all territory served.

AVAILABILITY

Available as a rider to any Customer who is an "Agricultural Net Metering Customer" or "Net Metering Customer" as defined herein. Agricultural Net Metering Customers are subject to the same provisions as non-Agricultural Net Metering Customers unless otherwise specified.

This rider also establishes requirements for small agricultural generators. A prospective small agricultural generator or a prospective Agricultural Net Metering Customer may elect to interconnect either as a small agricultural generator or Agricultural Net Metering Customer, but not both. Existing Agricultural Net Metering Customers may elect to become small agricultural generators but may not revert to being Agricultural Net Metering Customers after such election.

Total renewable generation capacity (i.e., the total generating capacity of Net Metering Customers, Agricultural Net Metering Customers, and small agricultural generators) will be limited to 1% of Company's Virginia peak-load forecast for the previous year. Upon request, Company will provide the Customer with the amount of renewable generation capacity available for interconnection. In any case where the Customer has submitted a written Renewable Generator Interconnection Notification Form that would cause the total renewable generation capacity to exceed 1%, Company will provide written notification to the Customer and the Division of Public Utility Regulation of the Virginia State Corporation Commission.

DEFINITIONS

"Agricultural business" means any sole proprietorship, corporation, partnership, electing small business (Subchapter S) corporation, or limited liability company engaged primarily in the production and sale of plants and animals, products collected from plants and animals, or plant and animal services that are useful to the public.

"Agricultural Net Metering Customer" means a Customer that operates an electrical generating facility consisting of one or more agricultural renewable fuel generators having an aggregate generation capacity of not more than 500 kilowatts as part of an agricultural business under a net metering service arrangement. An Agricultural Net Metering Customer may be served by multiple meters of one utility that are located at separate but contiguous sites and that may be aggregated into one account according to the Meter Aggregation provisions of this Rider. This account will be served under the appropriate tariff.

"Agricultural renewable fuel generator" or "agricultural renewable fuel generating facility" means one or more electrical generators that:

- use as their sole energy source solar power, wind power, or aerobic or anaerobic digester gas;
- the Agricultural Net Metering Customer owns and operates, or has contracted with other persons to own or operate, or both;
- 3. are located on land owned or controlled by the agricultural business;
- are connected to the Agricultural Net Metering Customer's wiring on the Agricultural Net Metering Customer's side of the Agricultural Net Metering Customer's interconnection with the distributor;

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S.C.C. No. 18, Original Sheet No. 57.1

NMS Net Metering Service

DEFINITIONS (continued)

Standard Rate Rider

- 5. are interconnected and operated in parallel with an electric company's distribution facilities; and
- 6. are used primarily to provide energy to metered accounts of the agricultural business.

"Billing period" means, as to a particular Agricultural Net Metering Customer or a Net Metering Customer, the time period between the two (2) meter readings upon which the electric distribution company and the energy service provider calculate the Agricultural Net Metering Customer's or Net Metering Customer's bills.

"Billing period credit" means, for a non-Time-of-Use Agricultural Net Metering Customer or a non-Time-of-Use Net Metering Customer, the quantity of electricity generated and fed back into the electric grid by the Agricultural Net Metering Customer's agricultural renewable fuel generator or generators or by the Net Metering Customer's renewable fuel generator or generators in excess of the electricity supplied to the Customer over the billing period. For Time-of-Use Agricultural Net Metering Customers or Time-of-Use Net Metering Customers, billing period credits are determined separately for each time-of-use tier.

"Commission" means the Virginia State Corporation Commission.

"Contiguous sites" means a group of land parcels in which each parcel shares at least one boundary point with at least one other parcel in the group. Property whose surface is divided only by public right-of-way is considered contiguous.

"Customer" means a Net Metering Customer or an Agricultural Net Metering Customer.

"Demand charge-based time-of-use tariff" means a retail tariff for electric supply service that has two or more time-of-use tiers for energy-based charges and an electricity supply demand (kilowatt) charge.

"Electric Distribution Company" and "Energy Service Provider" means Old Dominion Power Company ("Company").

"Excess generation" means the amount of electrical energy generated in excess of the electrical energy consumed by the Agricultural Net Metering Customer or Net Metering Customer over the course of the net metering period. For Time-of-Use Agricultural Net Metering Customers or Net Metering Customers, excess generation is determined separately for each time-of-use tier.

"Generator" or "generating facility" means an electrical generating facility consisting of one or more renewable fuel generators or one or more agricultural renewable fuel generators that meet the criteria under the definition of "Net Metering Customer" and "Agricultural Net Metering Customer," respectively.

"Net Metering Customer" means a Customer owning and operating, or contracting with other persons to own or operate, or both, an electrical generating facility consisting of one or more renewable fuel generators having an aggregate generation capacity of not more than twenty (20) kilowatts

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S.C.C. No. 18, Original Sheet No. 57.2

Standard Rate Rider

NMS Net Metering Service

DEFINITIONS (continued)

for residential Customers and not more than one megawatt for nonresidential Customers. The generating facility will be operated under a net metering service arrangement.

"Net metering period" means each successive 12-month period beginning with the first meter reading date following the final interconnection of an Agricultural Net Metering Customer or a Net Metering Customer's generating facility consisting of one or more agricultural renewable fuel generators or one or more renewable fuel generators, respectively, with the electric distribution company's distribution facilities.

"Net metering service" means providing retail electric service to an Agricultural Net Metering Customer operating an agricultural renewable fuel generating facility or a Net Metering Customer operating a renewable fuel generating facility and measuring the difference, over the net metering period, between the electricity supplied to the Customer from the electric grid and the electricity generated and fed back to the electric grid by the Customer.

"Person" means any individual, sole proprietorship, corporation, limited liability company, partnership, association, company, business, trust, joint venture, or other private legal entity, the Commonwealth, or any city, county, town, authority, or other political subdivision of the Commonwealth.

"Renewable Energy Certificate" or "REC" represents the renewable energy attributes associated with the production of one megawatt-hour (MWh) of electrical energy by a generator.

"Renewable fuel generator" or "renewable fuel generating facility" means one or more electrical generators that:

- 1. use renewable energy, as defined by § 56-576 of the Code of Virginia, as their total fuel source;
- 2. the Net Metering Customer owns and operates, or has contracted with other persons to own or operate, or both;
- are located on the Net Metering Customer's premises and connected to the Net Metering Customer's wiring on the Net Metering Customer's side of its interconnection with the distributor;
- 4. are interconnected pursuant to a net metering arrangement and operated in parallel with the electric distribution company's distribution facilities; and
- 5. are intended primarily to offset all or part of the Net Metering Customer's own electricity requirements. The capacity of any generating facility installed on or after July 1, 2015, shall not exceed the expected annual energy consumption based on the previous 12 months of billing history or an annualized calculation of billing history if twelve (12) months of billing history is not available.

"Small agricultural generating facility" means an electrical generating facility that:

- 1. Has a capacity of not more than 1.5 megawatts and does not exceed 150% of the Customer's expected annual energy consumption based on the previous twelve (12) months of billing history or an annualized calculation of billing history if twelve (12 months of billing history is not available;
- 2. Uses as its total source of fuel renewable energy;

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S.C.C. No. 18, Original Sheet No. 57.3

NMS Net Metering Service

DEFINITIONS (continued)

Standard Rate Rider

- 3. Is located on the Customer's premises and is interconnected with Company's distribution system through a separate meter;
- 4. Is interconnected and operated in parallel with Company's distribution system but not transmission facilities;
- 5. Is designed so that the electricity generated is expected to remain on Company's distribution system; and
- 6. Is a qualifying small power production facility pursuant to the Public Utility Regulatory Policies Act of 1978 (P.L. 95-6171).

"Small agricultural generator" means a Customer that:

- 1. Is not an Agricultural Net Metering Customer;
- 2. Operates a small agricultural generating facility as part of an agricultural business;
- 3. May be served by multiple meters that are located at separate but contiguous sites;
- May aggregate the electricity consumption measured by the meters, solely for purposes of calculating 150% of the Customer's expected annual energy consumption but not for billing or retail service purposes, provided that Company serves all of its meters;
- 5. Uses not more than 25% of the contiguous land owned or controlled by the agricultural business for purposes of the renewable energy generating facility; and
- 6. Provides Company with a certification, attested under oath, as to the amount of land being used for renewable generation.

"Time-of-Use Customer" means an Agricultural Net Metering Customer or Net Metering Customer receiving retail electricity supply service under a demand charge-based time-of-use tariff.

"Time-of-use period" means an interval of time over which the energy (kilowatt-hour) rate charged to a Time-of-Use Customer does not change.

"Time-of-use tier" or "tier" means all time-of-use periods given the same name (e.g., on-peak, offpeak, critical peak, etc.) for the purpose of time-differentiating energy (kilowatt-hour)-based charges. The rates associated with a particular tier may vary by day and by season.

NOTIFICATION

A prospective Agricultural Net Metering Customer, a prospective Net Metering Customer, or a prospective small agricultural generator (hereinafter referred to as "Prospective Customer") will submit to Company a completed Renewable Generator Interconnection Notification Form ("Notification Form") (see Sheet Nos. 57.8 and 57.9 below) according to the time limits below. If the Prospective Customer has contracted with another person to ownor operate, or both, the generator or generators, then the completed Notification Form will include detailed, current, and accurate contract information for the owner or operator, or both, including without limitation, the name and title of one or more individuals responsible for the interconnection and operation of the generator or generators, a telephone number, a physical street address other than a post office box, a fax number, and an email address for each such person.

1. A Residential Customer shall notify Company and receive approval to interconnect prior to installation (or adding capacity to) an electrical generating facility. Company will have thirty (30) days from the date of notification to determine whether the requirements contained in

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And Rates, Norton, Virginia

Issued by Authority of SCC Order in Case No. PUR-2019-00060 dated April 6, 2020

Rot M. Con

S.C.C. No. 18, Original Sheet No. 57.4

Standard Rate Rider

NMS Net Metering Service

NOTIFICATION (continued)

- 20VAC5-315-40 have been met. The date of notification will be considered to be the third day following the mailing of the Notification Form by the Prospective Customer.
- 2. A non-Residential Customer shall notify Company and receive approval to interconnect prior to installation (or adding capacity to) an electrical generating facility. Company shall have 60 days from the date of notification to determine whether the requirements contained in 20VAC5-315-40 have been met. The date of notification will be considered to be the third day following the mailing of the Notification Form by the Prospective Customer.

Thirty-one days after the date of notification for a Residential Customer, and sixty-one (61) days after the date of notification for a non-Residential Customer, the Prospective Customer may interconnect and begin operation of the generating facility unless Company requests a waiver of this requirement under the provisions of 20VAC5-315-80 prior to the 31st or 61st day, respectively. If Company requests a waiver, it will simultaneously mail a copy of the request for waiver to the Prospective Customer and to the Commission's Division of Public Utility Regulation.

CONDITIONS OF INTERCONNECTION

A Prospective Customer may begin operation of the generating facility on an interconnected basis when:

- 1. The Prospective Customer has properly notified Company (in accordance with the Notification section above) of the Customer's intent to interconnect.
- 2. The Prospective Customer has installed a lockable, electric distribution company accessible, load breaking manual disconnect switch at each of the facility's generators.
- 3. The licensed electrician who installs the Prospective Customer's generator or generators certifies by signing the commission-approved notification form, that any required manual disconnect switch or switches are being installed properly and that the generator or generators have been installed in accordance with the manufacturer's specifications as well as all applicable provisions of the National Electrical Code. If the Prospective Customer or licensed Virginia Class A or B general contractor installs the Prospective Customer's generator or generators, the signed final electrical inspection can be used in lieu of the licensed electrician's certification.
- 4. The vendor certifies by signing the commission-approved notification form that the generator or generators being installed are in compliance with the requirements established by Underwriters Laboratories or other national testing laboratories in accordance with IEEE Standard 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, July 2003.
- 5. In the case of static inverter-connected generators with an alternating current capacity in excess of 10 kilowatts, the Prospective Customer has had the inverter settings inspected by Company. Company may impose a fee on the Prospective Customer of no more than \$50 for each generator that requires this inspection.
- 6. In the case of non-static inverter-connected generators, the Prospective Customer has interconnected according to Company's interconnection guidelines and Company has inspected all protective equipment settings. Company may impose a fee on the Prospective Customer of no more than \$50 for each generator that requires this inspection.

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S.C.C. No. 18, Original Sheet No. 57.5

Standard Rate Rider

NMS Net Metering Service

CONDITIONS OF INTERCONNECTION (continued)

- 7. The following requirements shall be met before interconnection may occur:
 - a. Electric distribution facilities and Customer impact limitations. A Prospective Customer's generator will not be permitted to interconnect to distribution facilities if the interconnection would reasonably lead to damage to any of Company's facilities or would reasonably lead to voltage regulation or power quality problems at other Customer revenue meters due to the incremental effect of the generator on the performance of the electric distribution system, unless the Customer reimburses Company for its cost to accommodate the interconnection, including the reasonable cost of equipment required for the interconnection.
 - b. Secondary, service, and service entrance limitations. The capacity of the generators at any one service location will be less than the capacity of Company-owned secondary, service, and service entrance cable connected to the point of interconnection, unless the Prospective Customer reimburses Company for the reasonable cost of equipment required for the interconnection.
 - c. Transformer loading limitations. A Prospective Customer's generator will not have the ability to overload Company's transformer, or any transformer winding, beyond manufacturer or nameplate ratings, unless the Prospective Customer reimburses Company for the reasonable cost of equipment required for the interconnection.
 - d. Integration with Company facilities grounding. The grounding scheme of each generator will comply with IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, July 2003, and will be consistent with the grounding scheme used by Company. If requested by a Prospective Customer, Company will assist the Prospective Customer in selecting a grounding scheme that coordinates with its distribution system.
 - e. Balance limitation. The generator or generators will not create a voltage imbalance of more than 3.0% at any other Customer's revenue meter if Company's transformer, with the secondary connected to the point of interconnection, is a three-phase transformer, unless the Prospective Customer reimburses Company for the reasonable cost of equipment required for the interconnection.

INTERCONNECTION GUIDELINES

Customer will operate their generating facilities in parallel with Company's system under the following conditions and any other conditions required by Company where unusual conditions arise not covered herein:

- Customer will own, install, and maintain, or contract with other persons to own, install, and maintain, all generating facilities on their premises. Such facilities will include, but not be limited to, necessary control equipment to synchronize frequency, voltage, etc., between Customer's and Company's system as well as adequate protective equipment between the two systems. Customer's voltage at the point of interconnection will be the same as Company's system voltage.
- Customer will be responsible for operating generators and all facilities owned by Customer or contracting with other persons for operating generators and all facilities owned by Customer, except as specified hereinafter. Customer will maintain its system in synchronization with Company's system.

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And Rates, Norton, Virginia

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RAM. Coy

S.C.C. No. 18, Original Sheet No. 57.6

Standard Rate Rider

NMS Net Metering Service

INTERCONNECTION GUIDELINES (continued)

- 3. Customer will be responsible for any damage done to Company's equipment due to failure of Customer's control, safety, or other equipment.
- 4. A suitable lockable, Company-accessible, load-breaking manual disconnect switch or similar equipment, as specified by Company, will be furnished by Customer at a location designated by Company to enable the separation or disconnection of the two electrical systems. The load-breaking manual disconnect switch will be accessible to Company at all times.
- Customer agrees to inform Company of any changes it wishes to make in its generating or associated facilities that are different from those initially installed and described to Company in writing and obtain prior approval from Company.
- 6. Company will have the right to inspect and approve Customer's facilities, described herein, and conduct any tests necessary to determine that such facilities are installed and operating properly. But Company will have no obligation to inspect, witness tests, or in any manner be responsible for Customer's facilities or operation.
- 7. Customer assumes all responsibility for the electric service on Customer's premises at and from the point of delivery of electricity from Company and for the wires and equipment used in connection therewith, and will protect and save Company harmless from all claims for injury or damage to persons or property occurring on Customer's premises or at and from the point of delivery of electricity from Company, occasioned by such electricity or said wires and equipment, except where said injury or damage will be shown to have been occasioned solely by the negligence of Company.
- 8. If Customer has contracted with other persons to own, operate, or both, the renewable fuel generator, Customer must supply accurate information for the owner, operator, or both, including, without limitation, the name and title of one or more individuals responsible for the interconnection and operation of the generator, a telephone number, a physical street address other than a post office box, a fax number, and an e-mail address for each person or persons. Customer will immediately notify Company of any changes in the ownership of, operational control for, or contact information for the generator.
- 9. Company may install additional controls or meters or conduct additional tests as it may deem necessary.

METERING

Net Metering Service will be measured in accordance with standard metering practices by metering equipment capable of measuring (but not necessarily displaying) power flow in both directions at the point of interconnection. Net metering service will be measured using a single meter or, as provided in 20 VAC 5-315-70, additional meters. Company will not charge the Net Metering Customer for metering except as is provided in VAC 5-315-50 and 5-315-70. A Time-of-Use Net Metering Customer will bear the incremental costs associated with net metering. Any incremental metering associated with measuring the output of the Customer-owned generator or generators for the purposes of receiving renewable energy certificates (REC) will be installed at Customer's expense.

METER AGGREGATION

Only Agricultural Net Metering Customers are eligible for meter aggregation. An Agricultural Net Metering Customer may, but need not, apply to Company to aggregate into one account the demand and usage of multiple meters located at separate but contiguous sites the Customer uses for its agricultural business. The applicant must provide to Company deeds, plats, leases, or other

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And Rates, Norton, Virginia

Issued by Authority of SCC Order in Case No. PUR-2017-00099 dated January 22, 2018

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S.C.C. No. 18, Original Sheet No. 57.7

Standard Rate Rider

NMS Net Metering Service

METER AGGREGATION (continued)

evidence satisfactory to Company to show that the meters the Customer desires to aggregate are (1) on the same or contiguous sites and (2) that the Customer uses the affected sites for its agricultural business.

After the applicant has demonstrated to Company's reasonable satisfaction that it qualifies for meter aggregation, Company will determine the appropriate rate classification for the aggregated meters. To do so, Company will determine the coincident peak demand recorded on the meters to be aggregated and assign the aggregated meters to the rate appropriate for the aggregated coincident peak demand. If any of the existing meters to be aggregated is not capable of recording demand data, Company will work in good faith with the Customer to estimate a peak demand for the facilities on the Customer's side of each such meter.

To the extent the Customer's requested meter aggregation requires Company to replace or enhance an existing meter with a meter with increased capabilities, e.g., replacing a non-demand-recording meter with a meter capable of recording demand data, Company will charge Customer for the entire cost of the meter replacement or enhancement, for which payment in full will be due to Company on the due date of the bill on which the charge first appears. This condition applies only to meter replacements or enhancements required to achieve a Customer's requested meter aggregation; it does not apply to the cost of any meter replacements or enhancements necessary solely to implement net metering.

Upon aggregating meters according to the applying Customer's request as described above, Company will bill the Customer for coincident demands and total energy consumption across the aggregated meters as though the aggregated meters were a single meter under the appropriate standard rate schedule and this Rider NMS. The highest-voltage service supplied to any of the aggregated meters will be the voltage used to determine the appropriate standard rate schedule for all the aggregated meters and the applicable charges under that rate schedule. For example, a Customer aggregating two secondary-level services and one primary-level service will be billed for primary-level basic service, demand, and energy charges for all three aggregated meters under the appropriate rate schedule.

After Company aggregates meter according to the Customer's request, a Customer may not remove a meter from a requested aggregation unless the Customer ceases to take service at that location or ceases to qualify as an agricultural net metering customer. A Customer may add qualifying meters to an existing aggregation upon application to Company showing sufficient evidence to qualify for aggregation as described above.

An Agricultural Net Metering Customer who aggregates meters must notify Company within ninety (90) days of any outage of the Customer's generating facility and provide reasonable evidence of the Customer's efforts to restore the generating facility to service in a timely manner. Company will use good faith to determine if the Customer's plans to restore the facility to service are reasonably likely to restore the facility to service in a timely manner. If Company determines in its sole discretion that the Customer is not making reasonable efforts to restore the facility to service in a timely manner, Company will discontinue the Customer's meter aggregation and net metering service effective immediately and will bill the Customer at the standard rate schedules individually applicable to the meters.

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And Rates, Norton, Virginia

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Rot M. Coy

S.C.C. No. 18, Original Sheet No. 57.8

Standard Rate Rider

NMS Net Metering Service

TARIFFS

Subject to the terms of the Meter Aggregation section above, each contract or tariff governing the relationship between a Net Metering Customer and Company will be identical, with respect to rate structure, all retail rate components, and monthly charges, to the contract or rate structure under which that Customer would have been served if the Customer were not a Net Metering Customer with the exception that time-of-use metering under a net metering service contract with no demand charges is not permitted. Said contract will be applicable to electric energy both supplied to and consumed from the grid by Customer at the point of interconnection.

Upon written request of the Net Metering Customer, Company will enter into a purchase power agreement for one or more net metering periods to purchase the excess generation, at a price equal to the system-wide PJM day-ahead annual, simple average LMP, as published by the PJM Market Monitoring Unit, for the most recent calendar year ending on or before the end of each net metering period (simple average of hourly LMPs, by tiers, for time-of-use customers) unless mutual agreement is reached on a higher price or the Commission establishes a different price or pricing methodology after notice and opportunity for hearing.

The written request for a purchase power agreement will be submitted to Company by the Net Metering Customer prior to the beginning of the first net metering period covered by the purchase power agreement.

BILLING

If electricity generated by Customer and fed back to Company's system exceeds the electricity supplied to Customer by Company during a net metering period, Customer will receive no compensation from Company unless Customer has entered into a purchase power agreement with Company. Any excess net generation by Customer and not subject to a purchase power agreement will be accumulated, carried forward and applied at the first opportunity to any billing periods having positive net consumption (by tiers, in the case of Time-of-Use Customers). Any accumulated excess generation remaining unused at the end of a net metering period will be carried forward does not exceed Customer's billed consumption for the current net metering period, adjusted to exclude excess generation carried forward and applied from the previous net metering period (recognizing tiers for Time-of-Use Customers). If electricity generated by Customer and fed back to Company exceeds electricity supplied to Customer from Company during any billing period, Customer will be required to pay only the non-usage sensitive charges for that billing period or for a Time-of-Use Net Metering Customer the demand charge(s) plus non-usage sensitive charges for the billing period.

A Net Metering Customer owns any RECs associated with the total output of its generating facility. Company is obligated to purchase a Net Metering Customer's RECs only if Customer has exercised its one-time option at the time of signing a purchase power agreement with Company if the agreement requires the purchase of all RECs generated over the duration of the agreement. Payment for RECs generated and purchased during a billing period will be made at the same time as payment for any excess generation. Company may credit Customer's account or Customer may elect as direct payment. Any fractional RECs will be carried forward to subsequent net metering periods. The rate of payment for a RECs purchased by Company will be the daily unweighted average of the "CR" component of Virginia Electric and Power Company's Virginia

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And Rates, Norton, Virginia

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Rott M. Coy

S.C.C. No. 18, Original Sheet No. 57.9

Standard Rate Rider

NMS Net Metering Service

BILLING (continued)

jurisdiction Rider G in effect over the period for which rate of payment for the excess generation is determined.

If electricity generated by Customer and fed back to Company's system exceeds the electricity supplied to Customer by Company during a net metering period and Customer has entered into a purchase power agreement with Company, Company will make full payment to Customer within thirty (30) days following the end of the net metering period. Customer has the option of accepting such payment in the form of a billing credit or a direct payment.

LIABILITY INSURANCE

A Customer operating a generating facility with an alternating current capacity not exceeding ten (10) kilowatts shall maintain homeowners, commercial, or other insurance providing coverage in the amount of at least \$100,000 for the liability of the insured against loss arising out of the operation of the facility, and for a generating facility with an alternating current capacity exceeding ten (10) kilowatts such coverage shall be in the amount of at least \$300,000.

SPECIAL TERMS AND CONDITIONS FOR SMALL AGRICULTURAL GENERATORS

For small agricultural generators, these Special Terms and Conditions for Small Agricultural Generators supersede all conflicting provisions of this rider.

Small agricultural generators electing to interconnect pursuant to this rider shall enter into a power purchase agreement with Company to sell all of the electricity generated from Customer's small agricultural generating facility. Company shall be obligated by the power purchase agreement to purchase the electricity generated at prices agreed upon by the parties, which prices shall (a) not be less than the prices for energy and capacity set forth in the Rate for Payment to Seller section of Company's Standard Rate Rider QF, Cogeneration and Small Power Producer, and (b) be subject to the same terms contained in the Rate for Payment to Seller section of Company's Standard Rate Rider QF unless Company and Customer agree otherwise.

Small agricultural generators with renewable energy certificates or other environmental attributes generated by the small agricultural generating facility shall have the rights described in 20 VAC 5-315-50.

Small agricultural generators and Company shall abide by the small generator interconnection process described in 20 VAC 5-314. Each prospective small agricultural generator shall be responsible for all costs associated with any interconnection or engineering studies that may be required prior to interconnection.

Company shall recover the cost for its distribution facilities to the generating meter either through a proportional cost-sharing agreement with the small agricultural generator or through metering the total capacity and energy placed on the distribution system by the small agricultural generator.

Company may conduct settlement transactions for purchased power in dollars on the small agricultural generator's electric bill or through other means of settlement, in Company's sole discretion.

RULES AND REGULATIONS

Except as provided herein, service will be provided under Company's Rules and Regulations or Terms and Conditions.

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And Rates, Norton, Virginia

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Rot M. Con

S.C.C. No. 18, Original Sheet No. 57.10

Standard Rate Rider

NMS Net Metering Service

Renewable Generator Interconnection Notification Form PAGE 1 OF 2

PURSUANT TO RULE 20 VAC 5-315-30 OF THE COMMISSION'S REGULATIONS GOVERNING NET ENERGY METERING, APPLICANT HEREBY GIVES NOTICE OF INTENT TO OPERATE A GENERATING FACILITY.

Customers shall initially complete Sections 1-4 and submit to the utility for review and approval prior to installation. Once approved by the utility the customer may complete installation and re-submit the form with Section 5 completed.

Section 1. Applicant Information Check: \Box Ag Net Metering; \Box Power Purchase Agreement

Name:				
Mailing Address:				
City:	State:	Zip Code:		
Phone Number(s):				
Fax Number:	Email:			
Distribution Utility:	Account Number:			
Energy Service Provider (ESP) (if different	than electric distribution con	npany):		
ESP Account Number (if applicable):				
Proposed Interconnection Date				

Section 2. Generator Information (Add sheets for multiple generating units.) Owner and/or Operator Name (if different from Applicant):

Business Relationship to Applicant:		
Mailing Address:		
City:	State:	Zip Code:
Phone Number(s):		
Fax Number:	Email:	
Street Address of Generating Unit:		
City:	State:	Zip Code:
Fuel Type:		
Generator Manufacturer and Model:		
Rated Capacity in kilowatts: AC	1	DC
Inverter Manufacturer and Model:		
Battery Backup (circle one): Yes No		

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PPL CORPORATION, PPL RHODE ISLAND HOLDINGS, LLC NATIONAL GRID USA, and THE NARRAGANSETT ELECTRONIC COMPANY Docket No. D-21-09 Attachment PPL-DIV 2-54-2 Page 28 of 28

Old Dominion Power Company

					S.C.C. No. 18, Original	Sheet No. 57.11
Standard Rate	Rider		NI Net Meterin	NS ng Servi	се	
	Renewable Generator Interconnection Notification Form PAGE 2 OF 2					
Section 3. Info	ormation for]	Facilities				
Generator Type	(circle one):	Inverter	Induction	n S	ynchronous	
Frequency:	Hz;	Nu	mber of phas	es (circle	e one): One Three	
Rated Capacity:	DC	_kW; AC	apparent		kVA; AC real	kW;
Power factor	%;	AC volt	age	;	AC amperage	
Facility schemat	tic and equipm	ent layout 1	nust be attac	hed to the	is form.	
Section 4. Ven	dor Certificat	ion				
The system hard	lware is listed	by Underw	riters Labora	tories to l	be in compliance with UI	L 1741.
Signed (Vendor)):				Date:	
Name (printed):				Phone N	Jumber:	
Company:				Email:		
Section 5. Elect The system has applicable provi	trician Certifi been installed sions of the N	cation (If n in accordan ational Elec	ot electrician ice with the n trical Code.	-installec nanufacti	l, attach final electrical in urer's specifications as we	1spection.) ell as all
Signed (License	d Electrician):				Date:	
Name (printed):	,					
License Number	r:			Pho	ne Number:	
Mail Address:						
City:			State:		Zip Code:	
Utility signature metering regulat	signifies only ions, Regulatio	receipt of th on 20 VAC 5	is form, in co: 5-315-30.	mpliance	with the Commission's ne	t energy
Signed (Utility F	Representative)	:			Date:	
I hereby certify true and correc	that, to the b	est of my kr	owledge, all	of the ini	formation provided in th	is Notice is
Signature of App	plicant:				Date:	
Date of Issue: Date Effective: Issued By:	April 17, 202 February 1, Robert M. C And Rates,	20 2018 onroy, Vic Norton, Vi	e President rginia	, State R	egulation	

Issued by Authority of SCC Order in Case No. PUR-2017-00099 dated January 22, 2018

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P.S.C. No. 19, First Revision of Original Sheet No. 55 Canceling P.S.C. No. 19, Original Sheet No. 55

Standard Rate Rider

SQF

Small Capacity Cogeneration and Small Power Production Qualifying Facilities

APPLICABLE

In all territory served.

AVAILABILITY

This rate and the terms and conditions set out herein are available for and applicable to Company's purchases of energy only from the owner of qualifying cogeneration or small power production facilities of 100 kW or less (such owner being hereafter called "Seller") installed on Seller's property to provide all or part of its requirements of electrical energy, or from which facilities Seller may elect to sell to Company all or part of such output of electrical energy.

Company will permit Seller's generating facilities to operate in parallel with Company's system under conditions set out below under Parallel Operation.

Company will purchase such energy from Seller at the Rate, A or B, set out below and selected as hereafter provided, and under the terms and conditions stated herein. Company reserves the right to change the said Rates, upon proper filing with and acceptance by the jurisdictional Commission.

RATE A: TIME-DIFFERENTIATED RATE

1.	For summer billing months of June, July, August and September (on-peak hours)	\$0.02282 per kWh	R
2.	For winter billing months of December, January and February (on-peak hours)	\$0.02236 per kWh	R
3.	During all other hours (off-peak hours)	\$0.02145 per kWh	R

On-peak hours for summer billing months of June through September are defined as weekdays (exclusive of holidays) from 8:01 A.M. to 9:00 P.M., Eastern Standard Time (under 1 above).

On-peak hours for winter billing months of December through February are defined as weekdays (exclusive of holidays) from 6:01 A.M. to 9:00 P.M., Eastern Standard Time (under 2 above).

Off-peak hours are defined as all hours other than those listed as on-peak (under 3 above).

Company reserves the right to change the hours designated as on-peak from time to time as conditions indicate to be appropriate.

RATE B: NON-TIME-DIFFERENTIATED RATE

\$0.02173 per kWh

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For all kWh purchased by Company

DATE OF ISSUE: May 28, 2020

DATE EFFECTIVE: With Bills Rendered On and After June 30, 2020

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Lexington, Kentucky

Standard Rate Rider

P.S.C. No. 19, Original Sheet No. 55.1

SQF Small Capacity Cogeneration and Small Power Production Qualifying Facilities

SELECTION OF RATE AND METERING

Subject to provisions hereafter in this Section relative to payment of costs of metering equipment, either Seller or Company may select Rate A, the Time-Differentiated Rate, for application to Company's said purchases of energy from Seller. If neither Seller nor Company selects Rate A, then Rate B, the Non-Time-Differentiated Rate, shall apply.

If neither Seller nor Company selects Rate A, and Rate B therefore is to apply to such purchases, Company, at Seller's cost, will install, own and operate a non-time-differentiated meter and associated equipment, at a location selected by Company, measuring energy, produced by Seller's generator, flowing into Company's system. Such meter will be tested at intervals prescribed by Commission Regulation, with Seller having a right to witness all such tests; and Seller will pay to Company its fixed cost on such meter and equipment, expense of such periodic tests of the meter and any other expenses (all such costs and expenses, together, being hereafter called "costs of non-time-differentiated metering").

If either Seller or Company selects Rate A to apply to Company's said purchases of energy from Seller, the party (Seller or Company) so selecting Rate A shall pay (a) the cost of a timedifferentiated recording meter and associated equipment, at a location selected by Company, measuring energy, produced by Seller's generator, flowing into Company's system, required for the application of Rate A, in excess of (b) the costs of non-time-differentiated metering which shall continue to be paid by Seller.

In addition to metering referred to above, Company at its option and cost may install, own and operate, on Seller's generator, a recording meter to record the capacity, energy and reactive output of such generator at specified time intervals.

Company shall have access to all such meters at reasonable times during Seller's normal business hours, and shall regularly provide to Seller copies of all information provided by such meters.

PAYMENT

Any payment due from Company to Seller will be due within sixteen (16) business days (no less than twenty-two (22) calendar days) from date of Company's reading of meter; provided, however, that, if Seller is a Customer of Company, in lieu of such payment Company may offset its payment due to Seller hereunder, against Seller's next bill and payment due to Company for Company's service to Seller as Customer.

PARALLEL OPERATION

Company hereby permits Seller to operate its generating facilities in parallel with Company's system, under the following conditions and any other conditions required by Company where unusual conditions not covered herein arise:

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DATE EFFECTIVE: With Bills Rendered On and After June 29, 2018

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Lexington, Kentucky

P.S.C. No. 19, Original Sheet No. 55.2

Standard Rate Rider SQF Small Capacity Cogeneration and Small Power Production Qualifying Facilities

- 1. Prior to installation in Seller's system of any generator and associated facilities which are intended to be interconnected and operated in parallel with Company's system, or prior to the inter-connection to Company's system of any such generator and associated facilities already installed in Seller's system, Seller will provide to Company plans for such generator and facilities. Company may, but shall have no obligation to, examine such plans and disapprove them in whole or in part, to the extent Company believes that such plans and proposed facilities will not adequately assure the safety of Company's facilities or system. Seller acknowledges and agrees that the sole purpose of any Company examination of such plans is the satisfaction of Company's interest in the safety of Company's own facilities and system, and that Company shall have no responsibility of any kind to Seller or to any other party in connection with any such examination. If Seller thereafter proposes any change from such plans setting out such proposed change(s).
- 2. Seller will own, install, operate and maintain all generating facilities on its plant site, such facilities to include, but not be limited to, (a) protective equipment between the systems of Seller and Company and (b) necessary control equipment to synchronize frequency and voltage between such two systems. Seller's voltage at the point of interconnection will be the same as Company's system voltage. Suitable circuit breakers or similar equipment, as specified by Company, will be furnished by Seller at a location designated by Company to enable the separation or disconnection of the two electrical systems. Except in emergencies, the circuit breakers, or similar equipment, will be operated only by, or at the express direction of, Company personnel and will be accessible to Company at all times. In addition, a circuit breaker or similar equipment shall be furnished and installed by Seller to separate or disconnect Seller's generator.
- 3. Seller will be responsible for operating the generator and all facilities owned by Seller, except as hereafter specified. Seller will maintain its system in synchronization with Company's system.
- 4. Seller will (<u>a</u>) pay Company for all damage to Company's equipment, facilities or system, and (<u>b</u>) save and hold Company harmless from all claims, demands and liabilities of every kind and nature for injury or damage to, or death of, persons and/or property of others, including costs and expenses of defending against the same, arising in any manner in connection with Seller's generator, equipment, facilities or system or the operation thereof.
- 5. Seller will construct any additional facilities, in addition to generating and associated (interface) facilities, required for interconnection unless Company and Seller agree to Company's constructing such facilities, at Seller's expense, where Seller is not a Customer of Company. When Seller is a Customer of Company and Company is required to construct facilities different than otherwise required to permit interconnection, Seller shall pay such additional cost of facilities. Seller agrees to reimburse Company, at the time of installation,

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DATE EFFECTIVE: With Bills Rendered On and After December 5, 1985

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Lexington, Kentucky

P.S.C. No. 19, Original Sheet No. 55.3

Standard Rate Rider SQF Small Capacity Cogeneration and Small Power Production Qualifying Facilities or, if agreed to by both parties, over a period of up to three (3) years, for any facilities including any hereafter required (but exclusive of metering equipment, elsewhere herein provided for) constructed by Company to permit Seller to operate interconnected with Company's system.

constructed by Company to permit Seller to operate interconnected with Company's system. When interconnection costs are repaid over a period of time, such payments will be made monthly and include interest on the unpaid balance at the percentage rate equal to the capital costs that Company would experience at such time by new financing, based on Company's then existing capital structure, with return on equity to be at the rate allowed in Company's immediately preceding rate case.

- 6. Company will have the continuing right to inspect and approve Seller's facilities, described herein, and to request and witness any tests necessary to determine that such facilities are installed and operating properly; but Company will have no obligation to inspect or approve facilities, or to request or witness tests; and Company will not in any manner be responsible for Seller's facilities or any operation thereof.
- 7. Seller assumes all responsibility for the electric service upon Seller's premises at and from the point of any delivery or flow of electricity from Company, and for the wires and equipment used in connection therewith; and Seller will protect and save Company harmless from all claims for injury or damage to persons or property, including but not limited to property of Seller, occurring on or about Seller's premises or at and from the point of delivery or flow of electricity from Company, occasioned by such electricity or said wires and equipment, except where said injury or damage is proved to have been caused solely by the negligence of Company.
- 8. Each, Seller and Company, will designate one or more Operating Representatives for the purpose of contacts and communications between the parties concerning operations of the two systems.
- 9. Seller will notify Company's Energy Control Center prior to each occasion of Seller's generator being brought into or (except in cases of emergencies) taken out of operation.
- 10. Company reserves the right to curtail a purchase from Seller when:
 - (a) the purchase will result in costs to Company greater than would occur if the purchase were not made but instead Company, itself, generated an equivalent amount of energy; or
 - (b) Company has a system emergency and purchases would (or could) contribute to such emergency.

Seller will be notified of each curtailment.

TERMS AND CONDITIONS

Except as provided herein, conditions or operations will be as provided in Company's Terms and Conditions.

DATE OF ISSUE: May 14, 2019

DATE EFFECTIVE: With Bills Rendered On and After December 5, 1985

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Lexington, Kentucky

P.S.C. Electric No. 12, First Revision of Original Sheet No. 55

Canceling P.S.C. Electric No. 12, Original Sheet No. 55

Standard Rate Rider

SQF

Small Capacity Cogeneration and Small Power Production Qualifying Facilities

APPLICABLE

In all territory served.

AVAILABILITY

This rate and the terms and conditions set out herein are available for and applicable to Company's purchases of energy only from the owner of qualifying cogeneration or small power production facilities of 100 kW or less (such owner being hereafter called "Seller") installed on Seller's property to provide all or part of its requirements of electrical energy, or from which facilities Seller may elect to sell to Company all or part of such output of electrical energy.

Company will permit Seller's generating facilities to operate in parallel with Company's system under conditions set out below under Parallel Operation.

Company will purchase such energy from Seller at the Rate, A or B, set out below and selected as hereafter provided, and under the terms and conditions stated herein. Company reserves the right to change the said Rates, upon proper filing with and acceptance by the jurisdictional Commission.

RATE A: TIME-DIFFERENTIATED RATE

1.	For summer billing months of June, July, August and September (on-peak hours)	\$0.02282 per kWh	R
2.	For winter billing months of December, January and February (on-peak hours)	\$0.02236 per kWh	R
3.	During all other hours (off-peak hours)	\$0.02145 per kWh	R

On-peak hours for summer billing months of June through September are defined as weekdays (exclusive of holidays) from 8:01 A.M. to 9:00 P.M., Eastern Standard Time (under 1 above).

On-peak hours for winter billing months of December through February are defined as weekdays (exclusive of holidays) from 6:01 A.M. to 9:00 P.M., Eastern Standard Time (under 2 above).

Off-peak hours are defined as all hours other than those listed as on-peak (under 3 above).

Company reserves the right to change the hours designated as on-peak from time to time as conditions indicate to be appropriate.

RATE B: NON-TIME-DIFFERENTIATED RATE

For all kWh purchased by Company

\$0.02173 per kWh

R

DATE OF ISSUE: May 28, 2020

DATE EFFECTIVE: With Bills Rendered On and After June 30, 2020

ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Louisville, Kentucky

P.S.C. Electric No. 12, Original Sheet No. 55.1

Standard Rate Rider

Small Capacity Cogeneration and Small Power Production Qualifying Facilities

SQF

SELECTION OF RATE AND METERING

Subject to provisions hereafter in this Section relative to payment of costs of metering equipment, either Seller or Company may select Rate A, the Time-Differentiated Rate, for application to Company's said purchases of energy from Seller. If neither Seller nor Company selects Rate A, then Rate B, the Non-Time-Differentiated Rate, shall apply.

If neither Seller nor Company selects Rate A, and Rate B therefore is to apply to such purchases, Company, at Seller's cost, will install, own and operate a non-time-differentiated meter and associated equipment, at a location selected by Company, measuring energy, produced by Seller's generator, flowing into Company's system. Such meter will be tested at intervals prescribed by Commission Regulation, with Seller having a right to witness all such tests; and Seller will pay to Company its fixed cost on such meter and equipment, expense of such periodic tests of the meter and any other expenses (all such costs and expenses, together, being hereafter called "costs of non-time-differentiated metering").

If either Seller or Company selects Rate A to apply to Company's said purchases of energy from Seller, the party (Seller or Company) so selecting Rate A shall pay (a) the cost of a timedifferentiated recording meter and associated equipment, at a location selected by Company, measuring energy, produced by Seller's generator, flowing into Company's system, required for the application of Rate A, in excess of (b) the costs of non-time-differentiated metering which shall continue to be paid by Seller.

In addition to metering referred to above, Company at its option and cost may install, own and operate, on Seller's generator, a recording meter to record the capacity, energy and reactive output of such generator at specified time intervals.

Company shall have access to all such meters at reasonable times during Seller's normal business hours, and shall regularly provide to Seller copies of all information provided by such meters.

PAYMENT

Any payment due from Company to Seller will be due within sixteen (16) business days (no less than twenty-two (22) calendar days) from date of Company's reading of meter; provided, however, that, if Seller is a Customer of Company, in lieu of such payment Company may offset its payment due to Seller hereunder, against Seller's next bill and payment due to Company for Company's service to Seller as Customer.

PARALLEL OPERATION

Company hereby permits Seller to operate its generating facilities in parallel with Company's system, under the following conditions and any other conditions required by Company where unusual conditions not covered herein arise:

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ISSUED BY: /s/ Robert M. Conroy, Vice President State Regulation and Rates Louisville, Kentucky

P.S.C. Electric No. 12, Original Sheet No. 55.2

Standard Rate Rider SQF Small Capacity Cogeneration and Small Power Production Qualifying Facilities

- 1. Prior to installation in Seller's system of any generator and associated facilities which are intended to be interconnected and operated in parallel with Company's system, or prior to the inter-connection to Company's system of any such generator and associated facilities already installed in Seller's system, Seller will provide to Company plans for such generator and facilities. Company may, but shall have no obligation to, examine such plans and disapprove them in whole or in part, to the extent Company believes that such plans and proposed facilities will not adequately assure the safety of Company's own facilities and system, and that Company shall have no responsibility of any kind to Seller or to any other party in connection with any such examination. If Seller thereafter proposes any change from such plans setting out such proposed change(s).
- 2. Seller will own, install, operate and maintain all generating facilities on its plant site, such facilities to include, but not be limited to, (a) protective equipment between the systems of Seller and Company and (b) necessary control equipment to synchronize frequency and voltage between such two systems. Seller's voltage at the point of interconnection will be the same as Company's system voltage. Suitable circuit breakers or similar equipment, as specified by Company, will be furnished by Seller at a location designated by Company to enable the separation or disconnection of the two electrical systems. Except in emergencies, the circuit breakers, or similar equipment, will be operated only by, or at the express direction of, Company personnel and will be accessible to Company at all times. In addition, a circuit breaker or similar equipment shall be furnished and installed by Seller to separate or disconnect Seller's generator.
- 3. Seller will be responsible for operating the generator and all facilities owned by Seller, except as hereafter specified. Seller will maintain its system in synchronization with Company's system.
- 4. Seller will (a) pay Company for all damage to Company's equipment, facilities or system, and (b) save and hold Company harmless from all claims, demands and liabilities of every kind and nature for injury or damage to, or death of, persons and/or property of others, including costs and expenses of defending against the same, arising in any manner in connection with Seller's generator, equipment, facilities or system or the operation thereof.
- 5. Seller will construct any additional facilities, in addition to generating and associated (interface) facilities, required for interconnection unless Company and Seller agree to Company's constructing such facilities, at Seller's expense, where Seller is not a Customer of Company. When Seller is a Customer of Company and Company is required to construct facilities different than otherwise required to permit interconnection, Seller shall pay such additional cost of facilities. Seller agrees to reimburse Company, at the time of installation,

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Standard Rate Rider SQF Small Capacity Cogeneration and Small Power Production Qualifying Facilities

or, if agreed to by both parties, over a period of up to three (3) years, for any facilities including any hereafter required (but exclusive of metering equipment, elsewhere herein provided for) constructed by Company to permit Seller to operate interconnected with Company's system. When interconnection costs are repaid over a period of time, such payments will be made monthly and include interest on the unpaid balance at the percentage rate equal to the capital costs that Company would experience at such time by new financing, based on Company's then existing capital structure, with return on equity to be at the rate allowed in Company's immediately preceding rate case.

- 6. Company will have the continuing right to inspect and approve Seller's facilities, described herein, and to request and witness any tests necessary to determine that such facilities are installed and operating properly; but Company will have no obligation to inspect or approve facilities, or to request or witness tests; and Company will not in any manner be responsible for Seller's facilities or any operation thereof.
- 7. Seller assumes all responsibility for the electric service upon Seller's premises at and from the point of any delivery or flow of electricity from Company, and for the wires and equipment used in connection therewith; and Seller will protect and save Company harmless from all claims for injury or damage to persons or property, including but not limited to property of Seller, occurring on or about Seller's premises or at and from the point of delivery or flow of electricity from Company, occasioned by such electricity or said wires and equipment, except where said injury or damage is proved to have been caused solely by the negligence of Company.
- 8. Each, Seller and Company, will designate one or more Operating Representatives for the purpose of contacts and communications between the parties concerning operations of the two systems.
- 9. Seller will notify Company's Energy Control Center prior to each occasion of Seller's generator being brought into or (except in cases of emergencies) taken out of operation.
- 10. Company reserves the right to curtail a purchase from Seller when:
 - (a) the purchase will result in costs to Company greater than would occur if the purchase were not made but instead Company, itself, generated an equivalent amount of energy; or
 - (b) Company has a system emergency and purchases would (or could) contribute to such emergency.

Seller will be notified of each curtailment.

TERMS AND CONDITIONS

Except as provided herein, conditions or operations will be as provided in Company's Terms and Conditions.

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S.C.C. No. 18, Original Sheet No. 55

Standard Rate Rider

QF Cogeneration and Small Power Producer

APPLICABLE:

In all territory served.

AVAILABILITY

This rider and the terms and conditions set out herein are available to and applicable to Company's purchases of energy only from the owner of qualifying cogeneration or small power production facilities of 1,000 kW or less (such owner being hereafter called "Seller") installed on Seller's property to provide all or part of its requirements of electrical energy, or from which facilities Seller may elect to sell to Company all or part of such output of electrical energy.

Company will permit Seller's generating facilities to operate in parallel with Company's system under conditions set out below under Parallel Operation.

Company will purchase such energy from Seller at the Rate A or B set out below and selected as hereafter provided, and under the terms and conditions stated herein. Company reserves the right to change the said Rate, upon proper filing with and acceptance by the jurisdictional Commission.

RATE A: TIME-DIFFERENTIATED RATE

1.	For summer billing months of June, July, August and September (on-peak hours)	\$0.03229 per kWh
2.	For winter billing months of December, January and February (on-peak hours)	\$0.02852 per kWh
3.	During all other hours (off-peak hours)	\$0.02666 per kWh

On-peak hours for summer billing months of June through September are defined as weekdays (inclusive of holidays) from 8:01 A.M. to 9:00 P.M., Eastern Standard Time (under 1 above).

On-peak hours for winter billing months of December through February are defined as weekdays (inclusive of holidays) from 6:01 A.M. to 9:00 P.M., Eastern Standard Time (under 2 above).

Off-peak hours are defined as all hours other than those listed as on-peak (under 3 above).

Company reserves the right to change the hours designated as on-peak from time to time as conditions indicate to be appropriate.

RATE B: NON-TIME-DIFFERENTIATED RATE

For all kWh purchased by Company

\$0.02758 per kWh

Concurrent and consistent with its annual filing pursuant to Section 56-249.6 of the Code of Virginia, the system average portion of the energy rates will be adjusted to reflect cost estimates for each fuel type that will be applicable for the next year

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Standard Rate Rider

QF Cogeneration and Small Power Producer

SELECTION OF RATE AND METERING

Subject to provisions in this Section relative to payment of costs of metering equipment, either Seller or Company may select Rate A, the Time-Differentiated Rate, for application to Company's said purchases of energy from Seller. If neither Seller nor Company selects Rate A, then Rate B, the Non-Time-Differentiated Rate, shall apply.

If neither Seller nor Company selects Rate A, and Rate B therefore is to apply to such purchases, Company, at Seller's cost, will install, own and operate a non-time-differentiated meter and associated equipment, at a location selected by Company, measuring energy, produced by Seller's generator, flowing into Company's system. Such meter will be tested at intervals prescribed by Commission Regulation, with Seller having a right to witness all such tests; and Seller will pay to Company its fixed cost on such meter and equipment, expense of such periodic tests of the meter and any other expenses (all such costs and expenses, together, being hereafter called "costs of non-time-differentiated metering").

If either Seller or Company selects Rate A to apply to Company's said purchases of energy from Seller, the party (Seller or Company) so selecting Rate A shall pay (a) the cost of a timedifferentiated recording meter and associated equipment, at a location selected by Company, measuring energy, produced by Seller's generator, flowing into Company's system, required for the application of Rate A, in excess of (b) the costs of non-time-differentiated metering which shall continue to be paid by Seller.

In addition to metering referred to above, Company at its option and cost may install, own and operate, on Seller's generator, a recording meter to record the capacity, energy and reactive output of such generator at specified time intervals.

Company shall have access to all such meters at reasonable times during Seller's normal business hours, and shall regularly provide to Seller copies of all information provided by such meters.

PARALLEL OPERATION

Company hereby permits Seller to operate its generating facilities in parallel with Company's system, under the following conditions and any other conditions required by Company where unusual conditions not covered herein arise:

1. Prior to installation in Seller's system of any generator and associated facilities which are intended to be interconnected and operated in parallel with Company's system, or prior to the inter-connection to Company's system of any such generator and associated facilities already installed in Seller's system, Seller will provide to Company plans for such generator and facilities. Company may, but shall have no obligation to, examine such plans and disapprove them in whole or in part, to the extent Company believes that such plans and proposed facilities will not adequately assure the safety of Company's facilities or system. Seller acknowledges and agrees that the sole purpose of any Company's own facilities and system, and that Company shall have no responsibility of any kind to Seller or to any other party in connection with any such examination. If Seller thereafter proposes any change from such plans submitted to Company, prior to the implementation thereof Seller will provide to Company new plans setting out such proposed change(s).

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Standard Rate Rider

Cogeneration and Small Power Producer

QF

PARALLEL OPERATION (continued)

- 2. Seller will own, install, operate and maintain all generating facilities on its plant site, such facilities to include, but not be limited to, (a) protective equipment between the systems of Seller and Company and (b) necessary control equipment to synchronize frequency and voltage between such two systems. Seller's voltage at the point of interconnection will be the same as Company's system voltage. Suitable circuit breakers or similar equipment, as specified by Company, will be furnished by Seller at a location designated by Company to enable the separation or disconnection of the two electrical systems. Except in emergencies, the circuit breakers, or similar equipment, will be accessible to Company at all times. In addition, a circuit breaker or similar equipment shall be furnished and installed by Seller to separate or disconnect Seller's generator.
- Seller will be responsible for operating the generator and all facilities owned by Seller, except as hereafter specified. Seller will maintain its system in synchronization with Company's system.
- 4. Seller will (a) pay Company for all damage to Company's equipment, facilities or system, and (b) save and hold Company harmless from all claims, demands and liabilities of every kind and nature for injury or damage to, or death of, persons or property of others, or both including costs and expenses of defending against the same, arising in any manner in connection with Seller's generator, equipment, facilities or system or the operation thereof.
- 5. Seller will construct any additional facilities, in addition to generating and associated (interface) facilities, required for interconnection unless Company and Seller agree to Company's constructing such facilities, at Seller's expense, where Seller is not a customer of Company. When Seller is a customer of Company and Company is required to construct facilities different than otherwise required to permit interconnection, Seller shall pay such additional cost of facilities. Seller agrees to reimburse Company, at the time of installation, or, if agreed to by both parties, over a period of up to three (3) years, for any facilities including any hereafter required (but exclusive of metering equipment, elsewhere herein provided for) constructed by Company to permit Seller to operate interconnected with Company's system. When interconnection costs are repaid over a period of time, such payments will be made monthly and include interest on the unpaid balance at the percentage rate equal to the capital costs that Company would experience at such time by new financing, based on Company's then existing capital structure, with return on equity to be at the rate allowed in Company's immediately preceding rate case.
- 6. Company has the continuing right to inspect and approve Seller's facilities, described herein, and to request and witness any tests necessary to determine that such facilities are installed and operating properly; but Company will have no obligation to inspect or approve facilities, or to request or witness tests; and Company will not in any manner be responsible for Seller's facilities or any operation thereof.

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Standard Rate Rider

Cogeneration and Small Power Producer

QF

PARALLEL OPERATION (continued)

- 7. Seller assumes all responsibility for the electric service upon Seller's premises at and from the point of any delivery or flow of electricity from Company, and for the wires and equipment used in connection therewith; and Seller will protect and save Company harmless from all claims for injury or damage to persons or property, including but not limited to property of Seller, occurring on or about Seller's premises or at and from the point of delivery or flow of electricity from Company, occasioned by such electricity or said wires and equipment, except where said injury or damage is proved to have been caused solely by the negligence of Company.
- 8. Each, Seller and Company, will designate one or more Operating Representatives for the purpose of contacts and communications between the parties concerning operations of the two systems.
- 9. Seller will notify Company's Energy Control Center prior to each occasion of Seller's generator being brought into or (except in cases of emergencies) taken out of operation.
- 10. Company reserves the right to curtail a purchase from Seller when:
 - (a) the purchase will result in costs to Company greater than would occur if the purchase were not made but instead Company, itself, generated an equivalent amount of energy; or
 - (b) Company has a system emergency and purchases would (or could) contribute to such emergency.

Seller will be notified of each curtailment.

11. Company will install, own, and operate suitable metering equipment to determine kW capacity and kWh by time intervals supplied to Company by Customer at a mutually agreed to location and Customer agrees to pay Company their fixed cost on such meter as well as reimburse Company any expense of periodic tests and other expense such as, but not limited to, data translation as set forth above. Company and Customer will have a right to witness any meter tests. The meter will be tested at intervals as prescribed by Commission Regulations.

DUE DATE OF BILL

Any payment due from Company to Seller will be due within sixteen (16) business days (no less than twenty-two (22) calendar days) from date of the bill.

TERMS AND CONDITIONS

- a. Company will supply Supplemental Power to Customer upon written request at the rate that would apply if Customer had no qualifying cogeneration or small power production facilities.
- b. Except as specified above, all other provisions of the power rate to which this schedule is a rider shall apply.

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Standard Rate Rider

LQF Large Capacity Cogeneration and Small Power Production Qualifying Facilities

APPLICABLE

In all territory served.

AVAILABILITY

Т Available to any small power production or cogeneration "gualifying facility" with capacity over 100 kW as defined by the Kentucky Public Service Commission Regulation 807 KAR 5:054, and which contracts to sell energy or capacity or both to Company.

RATES FOR PURCHASES FROM QUALIFYING FACILITIES

Energy Component Payments

The hourly avoided energy cost (AEC) in \$ per MWh, which is payable to a QF for delivery of energy, shall be equal to Company's actual variable fuel expenses. for Company-owned coal and natural gas-fired production facilities, divided by the associated megawatt-hours of generation, as determined for the previous month. The total amount of the avoided energy cost payment to be made to a QF in an hour is equal to [AEC x E_{QF}], where E_{QF} is the amount of megawatt-hours delivered by a QF in that hour and which are determined by suitable metering.

Capacity Component Payments

The hourly avoided capacity cost (ACC) in \$ per MWh, which is payable to a QF for delivery of capacity, shall be equal to the effective purchase price for power available to Company from the inter-utility market (which includes both energy and capacity charges) less Company's actual variable fuel expense (AEC). The total amount of the avoided capacity cost payment to be made to a QF in an hour is equal to [ACC x CAPi], where CAPi, the capacity delivered by the QF, is determined on the basis of the system demand (Di) and Company's need for capacity in that hour to adequately serve the load.

Determination of CAP_i

For the following determination of CAP_i, C_{KU} represents Company's installed or previously arranged capacity at the time a QF signs a contract to deliver capacity; Cor represents the actual capacity provided by a QF, but no more than the contracted capacity; and C_M represents capacity purchased from the inter-utility market.

- 1. System demand is less than or equal to Company's capacity: $D_1 < C_{KU}; CAP_i = 0$
- 2. System demand is greater than Company's capacity but less than or equal to the total of Company's capacity and the capacity provided by a QF:

 $C_{KU} < D_i \leq [C_{KU} + C_{QF}]; CAP_i = C_M$

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Standard Rate Rider

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LQF Large Capacity Cogeneration and Small Power Production Qualifying Facilities

3. System demand is greater than the total of Company's capacity and the capacity provided by a QF:

 $D_i > [C_{KU} + C_{QF}]; CAP_i = C_{QF}$

PAYMENT

Company shall pay each bill for electric power rendered to it in accordance with the terms of the contract, within sixteen (16) business days (no less than twenty-two (22) calendar days) of the date the bill is rendered. In lieu of such payment plan, Company will, upon written request, credit Customer's account for such purchases.

TERM OF CONTRACT

For contracts which cover the purchase of energy only, the term shall be one (1) year, and shall be self-renewing from year-to-year thereafter, unless canceled by either party on one (1) year's written notice.

For contracts which cover the purchase of capacity and energy, the term shall be five (5) years.

TERMS AND CONDITIONS

- 1. Qualifying facilities shall be required to pay for any additional interconnection costs, to the extent that such costs are in excess of those that Company would have incurred if the qualifying facility's output had not been purchased.
- 2. A qualifying facility operating in parallel with Company must demonstrate that its equipment is designed, installed, and operated in a manner that insures safe and reliable interconnected operation. A qualifying facility should contact Company for assistance in this regard.
- 3. The purchasing, supplying and billing for service, and all conditions applying hereto, shall be specified in the contract executed by the parties, and are subject to the jurisdiction of the Kentucky Public Service Commission, and to Company's Terms and Conditions currently in effect, as filed with the Commission.

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Standard Rate Rider

LOF

Large Capacity Cogeneration and Small Power Production Qualifying Facilities

APPLICABLE

In all territory served.

AVAILABILITY

Available to any small power production or cogeneration "qualifying facility" with capacity over 100 kW as defined by the Kentucky Public Service Commission Regulation 807 KAR 5:054, and which contracts to sell energy or capacity or both to Company.

RATES FOR PURCHASES FROM QUALIFYING FACILITIES

Energy Component Payments

The hourly avoided energy cost (AEC) in \$ per MWh, which is payable to a QF for delivery of energy, shall be equal to Company's actual variable fuel expenses, for Company-owned coal and natural gas-fired production facilities, divided by the associated megawatt-hours of generation, as determined for the previous month. The total amount of the avoided energy cost payment to be made to a QF in an hour is equal to [AEC x E_{QF}], where E_{QF} is the amount of megawatt-hours delivered by a QF in that hour and which are determined by suitable metering.

Capacity Component Payments

The hourly avoided capacity cost (ACC) in \$ per MWh, which is payable to a QF for delivery of capacity, shall be equal to the effective purchase price for power available to Company from the inter-utility market (which includes both energy and capacity charges) less Company's actual variable fuel expense (AEC). The total amount of the avoided capacity cost payment to be made to a QF in an hour is equal to [ACC x CAP_i], where CAP_i, the capacity delivered by the QF, is determined on the basis of the system demand (D_i) and Company's need for capacity in that hour to adequately serve the load.

Determination of CAP_i

For the following determination of CAP_i, $C_{LG&E}$ represents Company's installed or previously arranged capacity at the time a QF signs a contract to deliver capacity; C_{QF} represents the actual capacity provided by a QF, but no more than the contracted capacity; and C_{M} represents capacity purchased from the inter-utility market.

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Т

Standard Rate Rider

Large Capacity Cogeneration and Small Power Production Qualifying Facilities

- 1. System demand is less than or equal to Company's capacity: $D_1 < C_{LG\&E}; CAP_i = 0$
- 2. System demand is greater than Company's capacity but less than or equal to the total of Company's capacity and the capacity provided by a QF:

 $C_{LG\&E} < D_i \leq [C_{LG\&E} + C_{QF}]; CAP_i = C_M$

3. System demand is greater than the total of Company's capacity and the capacity provided by a QF:

 $D_i > [C_{LG\&E} + C_{QF}]; CAP_i = C_{QF}$

PAYMENT

Company shall pay each bill for electric power rendered to it in accordance with the terms of the contract, within sixteen (16) business days (no less than twenty-two (22) calendar days) of the date the bill is rendered. In lieu of such payment plan, Company will, upon written request, credit Customer's account for such purchases.

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For contracts which cover the purchase of energy only, the term shall be one (1) year, and shall be self-renewing from year-to-year thereafter, unless canceled by either party on one (1) year's written notice

For contracts which cover the purchase of capacity and energy, the term shall be five (5) years.

TERMS AND CONDITIONS

- 1. Qualifying facilities shall be required to pay for any additional interconnection costs, to the extent that such costs are in excess of those that Company would have incurred if the qualifying facility's output had not been purchased.
- 2. A qualifying facility operating in parallel with Company must demonstrate that its equipment is designed, installed, and operated in a manner that insures safe and reliable interconnected operation. A qualifying facility should contact Company for assistance in this regard.
- 3. The purchasing, supplying and billing for service, and all conditions applying hereto, shall be specified in the contract executed by the parties, and are subject to the jurisdiction of the Kentucky Public Service Commission, and to Company's Terms and Conditions currently in effect, as filed with the Commission.

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