P.S.C. Electric No. 9, Original Sheet No. 57

Standard Rate Rider

NMS Net Metering Service

APPLICABLE

in all territory served.

AVAILABILITY OF SERVICE

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 30 kilowatts. This Standard Rate Rider is intended to comply with all provisions of the Interconnection and Net Metering Guidelines approved by the Public Service Commission of Kentucky, 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.

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 the Customer. This provision does not relieve Customer's responsibility to pay metering costs embedded in the 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 credit for the net delivery on Customer's bill for the succeeding billing periods. Any such unused excess credits will be carried forward and drawn on by Customer as needed. Unused excess credits existing at the time Customer's service is terminated end with Customer's account and are not transferrable between customers or locations.

NET METERING SERVICE INTERCONNECTION GUIDELINES

<u>General</u> – Customer shall operate the generating facility in parallel with Company's system where Company where C

- 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.
- Customer agrees to inform Company of any changes i wishes to make price to company in associated facilities that differ from those initially installed and described to Company in JEFF R. DEROUEN EXECUTIVE DIRECTOR
- Company will have the right to inspect and approve Customer's facilities described he and to conduct any tests necessary to determine that such facilities are Installed and H

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Issued By: Lonnie E. Bellar, Vice President, State Re	e
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Issued by Authority of an Order of the KPSC in Case No. 2009-00549 dated July 30, 2010

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Standard Rate Rider

NMS Net Metering Service

NET METERING SERVICE INTERCONNECTION GUIDELINES (continued)

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.
- 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.
- There are no identified violations of the applicable provisions of IEEE 1547, "Standard for Interconnecting Distributed Resources with Electric Power Systems".
- Company will not be required to construct any facilities on its own system to accommodate NCELLED the net metering generator.

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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 CE COMMISSION to whether the request is approved or, if denied, the reason(s) for denial. If additional information is required, the 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 meteling period and the conditions required of a Level 1 net meteling period and the conditions required of a Level 1 net meteling period and the conditions required of a Level 1 net meteling period and the conditions requirements are available on line at the condition of the conditions are available on line at the conditions requirements are available on line at the conditions requirements are available on line at the conditions and the conditions are available on line at the conditions are

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	PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

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P.S.C. Electric No. 9, Original Sheet No. 57.2

Standard Rate Rider

NMS Net Metering Service

NET METERING SERVICE INTERCONNECTION GUIDELINES (continued)

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, the 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 the 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.

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:
 - 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 time-to-time by the Public Service Commission of Kentucky;
 - d) the rules and regulations of the Public Service Commission of Kentucky, as may be revised by time-to-time by the Public Service Commission of Kentucky:
 - 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 CELLED 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 UCKY PUBLIC fluctuations in voltage, intermittent load characteristics or otherwise interfere with the E COMMISSION 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.

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

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Standard Rate Rider

NMS Net Metering Service

CONDITIONS OF INTERCONNECTION (continued)

generator resulting solely from the negligence or willful misconduct on the part of the 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 rate schedule.
- 7. Where required by the 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 disconnect switch 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.
- 8. Company shall have the right and authority at Company's sole discretion to isolate the generating facility or require the Customer to discontinue operation of the net metering generator 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 rate schedule, and 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 the Company is unable to immediately isolate or cause NCELLED Customer to isolate only the net metering generator, Company may isolate Customer's NCELLED entire facility.

9. Customer agrees that, without the prior written permission from Company, no changes 0.4 2013 shall be made to the generating facility as initially approved. Increases in net metering TUCKY PUBLIC generator capacity will require a new "Application for Interconnection and Net Metering TUCKY PUBLIC 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.

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

metering generator capacity is allowed without approva. 10. Customer shall protect, indemnify and hold harmless Company and its arrest configurations of the protect of the state of the s

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P.S.C. Electric No. 9, Original Sheet No. 57.4

Standard Rate Rider

NMS Net Metering Service

CONDITIONS OF INTERCONNECTION (continued)

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 the 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, the 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, the 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.

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 CELLED electric system and which exceeds the electricity supplied to the customer from the electric JAN 0 4 2013

KENTUCKY PUBLIC

SERVICE COMMISSION

TERMS AND CONDITIONS

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

	KENTUCKY PUBLIC SERVICE COMMISSION
	JEFF R. DEROUEN EXECUTIVE DIRECTOR
	TARIFF BRANCH
Date of Issue: January 7, 2013	Bunt Kirtley
Issued By: Lonnie E. Bellar, Vice President, State Regulation a	and Rates, Louisville, Kentucky 1/1/2013 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

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Standard F	Rate Rider	NMS Net Metering Service		
		LEVEL 1		
Applica	tion for Interconnectic	and Net Metering		
Use this a meet the i	application form only for a gen requirements of UL 1741.	nerating facility that is inverter based and cer	tified by a nationally recognized testing la	voratory to
Submit	this Application to:			
	Louisville Gas	s and Electric Company, Attn: Cu P. O. Box 32010, Louisville, KY	ustomer Commitment, 40232	
lf you h	ave questions regardi	ing this Application or its status, o	contact LG&E at:	
	502-6	527-2202 or customer.commitme	nt@lge-ku.com	
Custome	r Name:		Account Number:	
Custome	r Address:			
Custome	r Phone No.:	Customer E-mail Addre	ss:	
Project C	ontact Person:			
Phone No	0.:	E-mail Address (Optional):	
Provide r installatio	names and contact information of the generating facilitie	nation for other contractors, installers, or es:	r engineering firms involved in the de	sign and
Energy S	ource:Solar	WindHydro	BiogasBiomass	
Inverter N	Manufacturer and Model #:			
Inverter F	Power Rating:	Inverter Voltag	e Rating:	
Power Ra	ating of Energy Source (i.e	e., solar panels, wind turbine):		
is Battery	Storage Used:No	Yes If Yes, Battery Power	Rating:	
Attach do requiremo	ocumentation showing the ents of UL 1741.	nat inverter is certified by a nationally	y recognized testing laboratory to	neet the
Attach site switch) a	e drawing or sketch showir and inverter.	ing location of Utility's meter, energy sou	rce, (optional: Utility accessible dis	JAN 0 4 2013
Attach sin including transform	ngle line drawing showing switches, fuses, breakers ier connections.	g all electrical equipment from the Uti s, panels, transformers, inverters, ener	ility's metering location to the energ rgy source, wire size, equipment rati	y source UCKY PUB RgsRande Commis
Expected	Start-up Date:	·····		MMISSION
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Date of Issu Date Effect	ue: January 7, 2013 ive: November 1, 20	3 010	Bunt Kull	unt.
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	TIMAN G K. III		1/1/2013	

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	Net Metering Service
	LEVEL 2
Application for Interconnection Use this application form when a generation to meet the requirements of UL 1741 or de	and Net Metering ing facility is not Inverter-based or is not certified by a nationally recognized testing laboratory oes not meet any of the additional conditions under Level 1.
Submit this Application, along v	with an application fee of \$100, to:
Louisville Ga F	s 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	7-2202 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 informatio installation of the generating facilities:	n for other contractors, installers, or engineering firms involved in the design and
Total Generating Capacity of Generati	ing Facility:
Time of Conceptor Investor Do	
Type of Generator:Inverter-Bas	sedSynchronousInducuon
Power Source:Solar	WindHydroBiogasBiomass
Adequate documentation and information include the following: 1. Single-line diagram of the cu interconnection with the Utility fuses, voltage transformers, cu 2. Control drawings for relays and	I must be submitted with this application to be considered complete. Lypically this should ustomer's system showing all electrical equipment from the generator to the point of r's distribution system, including generators, transformers, switchgear, switches, breakers, transformers, with a size equipment ratings, and transformer connections.
 Site Plans showing the physica Relevant ratings of equipme arrangements, and impedance. 	I breakers. I location of major equipment. Int. Transformer information should include capacity ratings, voltage ratings, winding actings, applicable to the interconnection protection. If programmable ratings, winding
 Site Plans showing the physica Relevant ratings of equipme arrangements, and impedance. If protective relays are used, description of how the relay is p A description of how the genera For inverters, the manufacturer showing that inverter is certified For synchronous generators, manu 	I location of major equipment. I location of major equipment. ant. Transformer information should include capacity ratings, voltage ratings, winding settings applicable to the interconnection protection. If programmable relays are used, a programmed to operate as applicable to interconnection protection. ator system will be operated including all modes of operation. r name, model number, and AC power rating. For certified inverters, attach documentation 0 4 2013 t by a nationally recognized testing laboratory to meet the requirements of UL '741. anufacturer and model number, nameplate ratings, and impedance data (Xd, Xd, & Xd)ENTUCKY PUBL facturer and model number, nameplate ratings, and locked rotor current.
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 Site Plans showing the physica Relevant ratings of equipme arrangements, and impedance. If protective relays are used, description of how the relay is p A description of how the genera For inverters, the manufacturer showing that inverter is certified For synchronous generators, m For induction generators, manu Customer Signature: Date of Issue: January 7, 2013 Date Effective: November 1, 201 Issued By: Lonnie E. Bellar, Vice	I breakers. I location of major equipment. It Transformer information should include capacity ratings, voltage ratings, winding settings applicable to the interconnection protection. ator system will be operated including all modes of operation. r name, model number, and AC power rating. For certified inverters, attach iocumentation 0 4 2013 t by a nationally recognized testing laboratory to meet the requirements of UL '741. anufacturer and model number, nameplate ratings, and locked rotor current. Date: CENTUCKY Date: CENT

2010-00204 dated September 30, 2010