

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

Electronic Application Of Kentucky Power Company)
For (1) A General Adjustment Of Its Rates For)
Electric Service; (2) Approval Of Tariffs And Riders;)
(3) Approval Of Accounting Practices To Establish) Case No. 2020-00174
Regulatory Assets And Liabilities; (4) Approval Of A)
Certificate Of Public Convenience And Necessity,)
And (5) All Other Required Approvals And Relief)

MEMORANDUM BRIEF OF KENTUCKY POWER COMPANY REGARDING TARIFF NMS II

Mark R. Overstreet
Katie M. Glass
STITES & HARBISON PLLC
421 West Main Street
P.O. Box 634
Frankfort, Kentucky 40602-0634
Telephone: (502) 223-3477
moverstreet@stites.com
kglass@stites.com

Christen M. Blend (*pro hac vice*)
Hector Garcia-Santana (*pro hac vice*)
Tanner S. Wolffram (*pro hac vice*)
American Electric Power Service Corporation
1 Riverside Plaza, 29th Floor
Columbus, Ohio 43215
Telephone: (614) 716-1915 (Blend)
cblend@aep.com
hgarcia1@aep.com
tswolffram@aep.com

COUNSEL FOR
KENTUCKY POWER COMPANY

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I. INTRODUCTION

Kentucky Power Company's ("Kentucky Power" or the "Company") proposed Tariff NMS II is reasonable and effectuates the Kentucky General Assembly's 2019 statutory overhaul of the net metering compensation requirements and elimination of one-to-one metering of net excess generation. The Company's proposals are supported by substantial record evidence; parties opposing the tariff, on the other hand, have failed to provide any evidentiary support for their arguments. As set forth herein, and as further demonstrated in the net metering-related portions of the Company's December 8 and 17, 2020 initial and reply post-hearing briefs, the Public Service Commission of Kentucky ("Commission") should approve Tariff NMS II as proposed.

II. BACKGROUND

Kentucky Power filed its Application in this proceeding, including proposed Tariff NMS II, on June 29, 2020. The Commission conducted a six-day formal hearing by videoconference from November 17-24, 2020.¹ Through the record developed at the hearing, Kentucky Power witnesses' testimony, the Company's responses to data requests, and its post-hearing briefs, Kentucky Power demonstrated that its proposal to implement Senate Bill ("SB") 100, An Act Related to Net Metering (the "Net Metering Act") by closing its current Tariff NMS (Net Metering Service) to new customers and instituting Tariff NMS II (Net Metering Service II) is reasonable, appropriate, and consistent with the statute.² Among other things, the Company showed that the avoided cost rates proposed in Tariff NMS II appropriately value the "dollar

¹ Order, (Ky. P.S.C. Aug. 5, 2020).

² *See, e.g.*, Vaughan Direct Test. at 23-30, Ex. AEV-3, Ex. AEV-4; Vaughan Rebuttal Test. at 20-43, Ex. AEV-R4 through AEV-R7; Kentucky Power Initial Br. at 92-101; Kentucky Power Reply Br. at 15-20. The Company incorporates the foregoing and its responses to data requests regarding its net metering tariff proposals as if set forth fully herein.

value of electricity generated by an eligible customer-generator that is fed back to the electric grid over a billing period,” as the Net Metering Act requires.³ The Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention (“AG”) and Kentucky Industrial Utility Customers, Inc. (“KIUC”) support proposed Tariff NMS II.⁴

The Commission issued an Order regarding the Company’s Application on January 13, 2021. In that Order the Commission stated, with regard to the Company’s Tariff NMS II proposal, that it was “not convinced ... that avoided cost should be the basis for establishing new net metering rates.”⁵ Noting that this is the “first proceeding to propose new net metering rates consistent with the Net Metering Act,” the Commission found that its “decision regarding net metering rates should be deferred to allow Commission Staff to work with its consultant to ensure that there is sufficient evidence to support the conclusion that Kentucky Power’s proposed Tariff NMS II rates are fair, just, and reasonable.”⁶ The Commission also found relevant that “Kentucky Power did not conduct a cost of service study or provide any cost support for serving net metered customers.”⁷ Finally, the Commission directed the Company to file written notice within 15 days after the January 13, 2021 Order if Kentucky Power decided to put rates into effect as of January 14, 2021 pursuant to KRS 278.190(2).⁸ On January 15, 2021, the Commission established a further procedural schedule, including two rounds of testimony and discovery and an additional hearing regarding net metering issues.⁹ Consistent with the

³ Kentucky Power Initial Br. at 97-100 (citing KRS 278.465(4)(a)).

⁴ Order at 84 (Ky. P.S.C. Jan. 13, 2021).

⁵ *Id.* at 85.

⁶ *Id.*

⁷ *Id.* at 84-85.

⁸ *Id.* at 85.

⁹ Order (Ky. P.S.C. Jan. 15, 2021).

Commission's January 13, 2021 Order, Kentucky Power on January 26, 2021 filed correspondence notifying the Commission that it would place Tariff NMS II into effect subject to refund as of January 14, 2021 pursuant to KRS 278.190(2).¹⁰

The Company filed a motion for rehearing regarding certain aspects of the Commission's January 13, 2021 Order on February 2, 2021.¹¹ With regard to its net metering proposals, Kentucky Power explained that the record then before the Commission supported the reasonableness of the Company's proposed NMS II rates whether measured on an avoided cost basis or a cost of service basis, reminded the Commission that Kentucky Power provided updated and refined rates on rehearing that included cost of service support, and requested that the Commission grant rehearing to amend its January 13, 2021 Order to approve the Company's net metering tariff proposals.¹² Alternatively, the Company requested that the Commission specify on rehearing the type of study or evidence it believes it requires to establish fair, just, and reasonable NMS II rates.¹³ The Commission denied Kentucky Power's request for rehearing with respect to Tariff NMS II.¹⁴

Kentucky Power subsequently filed the supplemental and supplemental rebuttal testimony of Company witnesses Vaughan and Stegall. Accompanying the February 2021 supplemental testimony was a full class cost of service ("CCOS") study including separate classes for net metering customers. The Company filed with its supplemental rebuttal testimony

¹⁰ Letter from Mark Overstreet to Linda Bridwell, Executive Director of the Public Service Commission of Kentucky (Jan. 26, 2021).

¹¹ Mot. of Kentucky Power Company for Rehearing (Feb. 2, 2021).

¹² *Id.* at 41-44.

¹³ *Id.* at 44.

¹⁴ Order at 26-27 (Feb. 22, 2021).

a refinement of its February 2021 CCOS study using revenues for net metering classes based on the tariff structure for its proposed Tariff NMS II.

The Commission conducted an additional two-day formal hearing regarding the Company's net metering proposals from April 6-7, 2021.¹⁵ The hearing was conducted remotely, with all parties appearing via videoconference due to the COVID-19 pandemic. Fifteen witnesses took the stand on behalf of Kentucky Power Company and intervenors. Following that hearing, Kentucky Power responded to eight additional post-hearing data requests for information from Commission Staff. In total, following the Commission's January 13, 2021 Order, Kentucky Power responded to an additional 124 separate written questions, not including subparts, from Commission Staff and intervenors regarding Kentucky Power's net metering proposals.

Through the record the Company has developed in this case, including the record established in the initial phase of these proceedings, a compelling basis exists to approve the Company's net metering proposals.

III. PROPOSED TARIFF NMS II APPROPRIATELY IMPLEMENTS THE REQUIREMENTS OF KRS 278.466, IS REASONABLE, AND SHOULD BE APPROVED.

A. The Company's Net Metering Class Cost Of Service Studies Confirm That Net Metering Customers Receive A Significant Subsidy From, And Have A Lower Rate Of Return Than, All Other Classes.

Company Witness Stegall performed two full imbedded CCOS studies with the test year residential and commercial net metering customers removed from their respective standard tariff classes and instead included as their own separate customer classes.¹⁶ The net metering CCOS

¹⁵ Order (Ky. P.S.C. Jan. 15, 2021).

¹⁶ Vaughan Supp. Test. at S3.

studies employed the same sound cost-of-service principles of functionalization, classification, and allocation used in the CCOS study in the Company's original filing.¹⁷ Importantly, that CCOS study, and the principles underlying it, were relied upon by the Commission in establishing the rates it deemed fair, just, and reasonable in its January 13, 2021 Order.

Questions were raised during the hearing as to whether the Company performed separate load research specifically on net metering customers in order to develop the net metering CCOS. As Company Witness Stegall testified, the data to do so simply was not available because the Company, during the test year and currently, lacks the necessary metering technology to do so.¹⁸ Thus, Company Witness Stegall used the same methodology employed for every other tariff class to determine the class cost of service for net metering customers.¹⁹ To demonstrate, the Company currently has approximately 18 different tariff classes, and Company Witness Stegall developed the class cost of service for each of the tariff classes based only on about five different load profiles.²⁰ “[F]or example, the general service class has multiple voltages. [The Company] use[s] the same profile for each voltage level. The same thing for the LGS class. And then ... in this case [the Company] used the same profile for both outdoor lighting and street lighting.”²¹ Nonetheless, the tariff rates for outdoor lighting and street lighting (for example) were approved by the Commission's January 13th, 2021 order even though the Company did not perform

¹⁷ Stegall Supp. Test. at S3-S4.

¹⁸ VR 1 at 4:23:46 PM (“[T]o my knowledge that data currently isn't available, so we didn't choose not to come up with separate profiles. The data just wasn't there to do it. To develop that sort of data we would need to place load research meters on you know a set sample of customers that represent the class and then perform the statistical analysis that load research typically performs to come up with the profile. So it's certainly possible, but it wasn't possible in this case.”).

¹⁹ VR 1 at 3:16:39 PM.

²⁰ *Id.* at 4:24:47 PM.

²¹ *Id.*

separate load research for those classes.²² “This occurs in every jurisdiction where [Company Witness Stegall] ha[s] done a class cost of service study.”²³ To use the same profile across multiple sets of customers that show up in a class cost of service study...isn’t anything new.”²⁴ Moreover, the Company’s methodology used in developing the CCOS study and the net metering load profile did not differ materially from the methodology outlined in the Brattle Report introduced by the Vice Chairman at the hearing.²⁵

Further, the Company was able to validate the net metering customer load profile it developed against a “statistically significant load research sample” of 50 actual load research meters for net metering residential customers “just across the state line in [its] Virginia APCO service territory.”²⁶ The Company compared the Virginia profiles to confirm that its composite Kentucky net metering profile was valid compared to actual load research.²⁷ The comparison not only showed the Kentucky profile was valid, but also that it was “even a little bit conservative.”²⁸

²² *Id.*

²³ *Id.* at 3:16:39 PM.

²⁴ *Id.*

²⁵ *Id.* at 7:37:14 PM (“I would say generally the company followed a very – a very similar approach here in that you know in step one you know we came – came up with what is – what is that net profile or you know cost of service reduction from a net metering customer compared to a standard tariff class customer, what the customer [would] otherwise be if they weren't a customer generator. Step two on the calculation of bills that's – you know we did this multiple ways again. Whatever's under NMS or then what it would look like under NMS2. That's included in my supplemental rebuttal work papers. Again, we looked at monthly billing information for all – billing usage information for all of the test year net metering customers to include in that class cost of service analysis. You know step – step three talks about you know essentially what Mr. Stegall did, a cost of service study here, the benefit cost approach when you're looking at excess gen[eration]. That is my avoided cost pricing in the various exhibit throughout the entirety of this nine month hearing on that matter and what – what is that incremental excess generation worth? Four and five are just kind of the results and the conclusions, and – and we came to the same – the same conclusion in the end as Dr. Faruki and the Brattle team did. We don't have – we don't have the same magnitude of subsidies here because we don't have obviously the same penetration as the southwest and California does.”).

²⁶ *Id.* at 7:24:57 PM; *see also* Company Hearing Exhibit 1.

²⁷ *Id.* at 7:31:29 PM.

²⁸ *Id.*

Although CCOS studies typically are not required for sub-groups such as residential net metering customers and commercial net metering customers, the net metering CCOS studies allowed the Company to further evaluate the cost of service conclusions it has already put forth related to its net metering customers that were based on the peak coincidence, billing, and avoided cost analyses that the Company uses when developing rates for classes like the net metering classes.²⁹ The net metering CCOS studies, in fact, confirmed the Company's initial determinations about the cost to serve its net metering customers. The net metering CCOS studies plainly demonstrated that the cost to serve the Company's net metering customers is higher than the cost to serve other customers in the standard tariff/rate classes to which the net metering customers belong.³⁰ The below table,³¹ developed by Company Witness Stegall, and based on the March 25, 2021 CCOS study, objectively demonstrates that 1) net metering customers' rates are too low to cover the Company's cost to serve them, and they are being subsidized by all other customers, including non-net metering residential customers;³² 2) the net metering classes have significantly lower class rates of return compared to their standard tariff class counterparts;³³ and 3) net metering customers' rates would have to be increased significantly to bring their class returns to parity with their standard tariff counterparts.³⁴

²⁹ Vaughan Supp. Test. at S3.

³⁰ *Id.* at S4.

³¹ Stegall Supp. Rebuttal Test. at S3.

³² Vaughan Supp. Test. at S4.

³³ *Id.* at S3.

³⁴ *Id.* at S4.

**Revised Class Going-Level Rates of Return, Relative Rates of Return,
and Current Subsidy**

CLASS	Going-Level ROR	Relative ROR	Subsidy (Paid)/ Received (\$ in Millions)
Residential	-0.11 %	-0.04	\$31.8
Residential NMS	-7.03 %	-2.46	\$0.02
Commercial & Industrial NMS	-2.40 %	-0.84	\$0.02
General Service	7.26 %	2.54	(\$11.2)
Large General Service	6.39 %	2.23	(\$7.2)
IGS	5.62 %	1.97	(\$9.4)
Municipal Waterworks	9.51 %	3.33	(\$0.03)
Outdoor Lighting	15.21 %	5.32	(\$3.4)
Street Lighting	17.35 %	6.07	(\$0.6)
Total Kentucky Power Jurisdiction	2.86 %	1.00	\$0.0

The Company's 46 test year net metering customers received approximately \$40,000 in annual subsidies from other customers.³⁵ Stated otherwise, each of Kentucky Power's 46 test year net metering customers received subsidies totaling approximately \$870 per year per system in subsidies under Tariff NMS's existing one-to-one net metering provisions.³⁶ Such a result, is unfair, unjust, and unreasonable even in the absence of the requirements of the Net Metering Act.

³⁵ *Id.*

³⁶ *Id.* at S4-S5.

B. The Company’s Proposed Avoided Cost Rate Accounts For All Avoided Costs Of Electric Service, Inter-Class, And Intra-Class Cost Shifting Related To Net Metering Customer-Generators.

The avoided cost rates proposed in Tariff NMS II appropriately value the “dollar value of electricity generated by an eligible customer-generator that is fed back to the electric grid over a billing period,” as the Net Metering Act requires.³⁷ Company Witness Vaughan calculated the avoided cost rates by first calculating an avoided energy price and then adding to it a unitized fixed cost reduction value, calculated utilizing avoided cost of service related items.³⁸ He further refined his initial February 2021 analysis based on discovery and intervenor testimony. The result is the \$0.03553/kWh residential and \$0.03778/kWh commercial avoided cost rates the Company proposes.³⁹ These rates reflect a full accounting of the costs and benefits of eligible customer-generators’ distributed generation systems, including the dollar value of benefits, if any, associated with reduced transmission and distribution losses, reduced distribution level congestion, peak load reductions or shifts, reduced costs along the fuel supply line, reduced environmental liabilities and/or environmental compliance costs, avoided generation capacity investments, reduced grid support services, and improved grid resiliency.⁴⁰

The Company relied on sound ratemaking principles in developing Tariff NMS II prior to the February 2021 and March 2021 net metering CCOS studies being performed. The February 2021 and March 2021 net metering CCOS studies nonetheless confirm that all avoided costs of

³⁷ KRS 278.465(4)(a) (emphasis added).

³⁸ Vaughan Direct Test. at 26-27.

³⁹ See Proposed Tariff NMS II, attached as **EXHIBIT 1**; Vaughan Rebuttal Test. at R33-R34.

⁴⁰ *Id.* at R28-R31.

electric service, inter-class, and intra-class cost shifting related to net metering customer-generators have been accounted for.⁴¹

In sum, proposed Tariff NMS II fully incorporates the avoided costs of utility service in its avoided cost rates for excess generation and actually proposes to charge customers a rate for their net usage that is significantly *lower* than it should be when viewed in terms of the net metering CCOS studies and ratemaking principles.⁴² There are no other cost of service factors/items missing from the analysis that would make customer-generators' excess output more valuable than the rates the Company has proposed.⁴³ As required by the Net Metering Act, proposed Tariff NMS II represents the actual reduction in utility cost of service resulting from the excess generation.⁴⁴ Proposed Tariff NMS II thus is a conservative step away from traditional one-to-one net metering and is a just and reasonable way to implement SB 100.⁴⁵

C. Kentucky Power's Proposed Grandfather Provisions For Customers Taking Service Under Tariff NMS At The Time Of The Commission Order Establishing Rates Under KRS 278.466(3) Meet The Requirements Of KRS 278.466(6).

While recognizing the need to eliminate the unfairness of requiring non-participating customers to subsidize net metering customers through the one-to-one metering requirements of the then existing law, SB 100 protected the reasonable reliance-based expectations of those customers who installed net metering systems based on the then existing law by allowing such customers to continue to take service under the net metering provisions in effect when the rate requirements of SB 100 are first implemented:

⁴¹ Vaughan Supp. Test. at S5.

⁴² *Id.* at S6.

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ Vaughan Supp. Rebuttal Test. at SR3.

For an eligible electric generating facility in service prior to the effective date of the initial net metering order by the commission in accordance with subsection (3) of this section, the net metering provisions in place when the eligible customer-generator began taking net metering service, including the one-to-one (1:1) kilowatt-hour denominated energy credit for electricity fed into the grid, shall remain in effect at those premises for a twenty-five (25) year period, regardless of whether the premises are sold or conveyed during that twenty-five (25) year period.⁴⁶

The statute imposes two limitations on customers' ability to continue taking service under the pre-SB 100 law. First, the net metering system must be in service on the date rates are established pursuant to KRS 278.466(3). Second, the grandfather rights apply to the electric generating facility (and not the service address or the eligible customer-generator) in service at the time rates are established (“*For an eligible generating facility in service ...*”).⁴⁷ The General Assembly's use of “eligible generating facility in service” in establishing the statutory grandfather rights is particularly significant in light of the fact the General Assembly carefully defined both “eligible customer-generator” and “eligible electric generating facility” to distinguish between the two.⁴⁸ *See e.g. Schroader v. Atkins*, 657 S.W.2d 945, 947 (Ky. 1983) (“Many statutes contain a definition section and words used in the statute which are specifically defined by the statute must be given the meaning prescribed by the legislature in construing the statute.”) (quoting *Ky. Farm Bureau Ins. Co. v. Mason*, 600 S.W.2d 483, 484 (Ky. App. 1980)).

Company Witness Vaughan confirmed that customers taking service under Tariff NMS prior to the effective date of the Commission Order approving Tariff NMS II will be

⁴⁶ KRS 278.466(6).

⁴⁷ (emphasis supplied).

⁴⁸ *See* KRS 278.465(1) (defining “eligible customer-generator”) and KRS 278.465(2) (defining “eligible electric generating facility”).

grandfathered for 25 years in accordance with the requirements of KRS 278.466(6), including Tariff NMS' one-to-one kilowatt hour energy credit:

The Company's proposed changes to the NMS tariff [Tariff NMS II] will only apply to customers whose eligible electric generating facility begins service after January 1, 2021.⁴⁹ This proposal comports with KRS 278.466 and is a reasonable outcome because current NMS customers made their investment decisions based on the old 1 to 1 net metering policy and the underlying economics. They thus will be grandfathered under the previous compensation regime for up to 25 years.⁵⁰

The Company elected to implement Tariff NMS II effective January 14, 2021 in accordance with KRS 278.190(2) and the Commission's January 13, 2021 Order. Tariff NMS remained open and customers were free to elect to take service under the net metering tariff of their choice.⁵¹ Those customers electing to take service under Tariff NMS during this interim period, and whose eligible electric generating facility is placed in service prior to the effective date of the Commission Order issued in connection with this part of the proceeding, will be grandfathered in accordance with the statute.⁵²

Questions arose about the sunset of grandfather status for those eligible electric generating facilities undergoing major modifications during the 25-year grandfather period.⁵³ The sunset of grandfather status as a result of a major modification to the eligible electric generating facility is both consistent with, and required by, KRS 278.466(6). Grandfather status applies, under the express terms of the statute and as explained above, to the eligible electric

⁴⁹ The Company initially proposed January 1, 2021 as the effective date for its rates and tariffs. Kentucky Power's application was deemed filed as of July 14, 2020. The suspension period, and thus the effective date of Tariff NMS II, was extended to January 14, 2021.

⁵⁰ Direct Testimony of Alex E. Vaughan at 24.

⁵¹ Video Recording April 6, 2021 ("VR 1") at 5:00:59 PM.

⁵² *Id.*; Kentucky Power's Response to KPSC PHDR-6. *See also* Kentucky Power Company's Response to KYSEIA 1-13(a) ("The effective date of the proposed NMS II tariff will be the date the Commission determines the tariff is approved.").

⁵³ VR 1 at 5:09:35 PM; *id.* at 2:21:20 PM.

generating facility and not the eligible customer-generator. An increase in the eligible electric generating facility's capacity, or other major modification, is the functional equivalent of a new installation. There is no rational basis for distinguishing between the two. Moreover, because the upgrade or other major modification will have been undertaken after the effective date of the Commission's Order approving Tariff NMS II, and its compensation provisions, there are no reasonable reliance based expectations to protect.⁵⁴

This result also is fully consistent with the relevant provisions of existing Tariff NMS as approved by the Commission, Tariff NMS II as proposed in this case, and the Commission's "Interconnection and Net Metering Guidelines – Kentucky," as approved by the Commission's January 8, 2009 Order in Administrative Case No. 2008-00169.⁵⁵ Each provides:

10. Customer shall agree that, without prior written permission from Utility, no changes shall be made to the generating facility as initially approved. Increases in generating facility capacity will require a new "Application for Interconnection and Net Metering" which will be evaluated on the same basis as any other new application.⁵⁶

The requirement that an application be submitted to Kentucky Power for any increase in the generating facility's capacity, the requirement the submitted application be evaluated "on the same basis *as any other new application*,"⁵⁷ coupled with the requirement for notice to the

⁵⁴ Conversely, "a material change [] made prior to the effective date of the initial net metering Order by the Commission, the customer would retain its legacy status established in KRS 278.466(6). The 25 year grandfathering provision will begin once a customer's generator begins service under [Tariff] NMS prior to the Commission issuing the net metering Order." Kentucky Power's Response to KPSC PHDR-6. The Company understands the use of the phrases "initial net metering Order" and "net metering Order" as the data request, and its response, to refer to the Commission's Order in this proceeding to be issued on or before May 14, 2021.

⁵⁵ *In the Matter of: Development Of Guidelines For Interconnection And Net Metering For Certain Generators With Capacity Up To Thirty Kilowatts*, Administrative Case No. 2008-00169, Appendix A at 8 (Ky. P.S.C. January 8, 2009).

⁵⁶ *Id.* Appendix A at 8.

⁵⁷ *Id.* (emphasis supplied).

Company of *any change*⁵⁸ to the facility and the requirement of written permission from Kentucky Power for any change, makes clear that any increase in capacity, or other major modification to the eligible electric generating facility, in fact constitutes a new eligible electric generating facility that is outside the grandfather provision of KRS 278.466(6) if placed in service after the effective date of the Commission’s Order in this part of the proceeding.

The grandfather provisions of Tariff NMS and Tariff NMS II are consistent with, and implement the provisions of KRS 278.466(6) and protect the reasonable reliance based expectations of customers whose eligible electric generating facility is placed in service prior to the effective date of the Commission’s Order in this part of the proceeding.

D. Kentucky Power Stands Willing And Able To Implement Tariff NMS II Even In The Absence Of AMI.

The Commission’s January 13, 2021 Order in this proceeding denied, without prejudice, Kentucky Power’s application for a certificate of public convenience and necessity to deploy Advanced Metering Infrastructure (“AMI”) meters.⁵⁹ The question subsequently arose whether Kentucky Power could implement the time-of-use netting and compensation provisions of Tariff NMS II without AMI meters.⁶⁰ The answer is an unequivocal “yes.”⁶¹

KRS 278.466(2) requires that “[e]ach retail electric supplier serving a customer with eligible electric generating facilities shall use a standard kilowatt-hour meter capable of

⁵⁸ Excepted are those changes that involve the “[r]epair and replacement of existing generating facility components... and not resulting in increases in generating facility capacity....” *Id.*

⁵⁹ Order, *In the Matter of: Electronic Application Of Kentucky Power Company For (1) A General Adjustment Of Its Rates For Electric Service; (2) Approval Of Tariffs And Riders; (3) Approval Of Accounting Practices To Establish Regulatory Assets And Liabilities; (4) Approval Of A Certificate Of Public Convenience And Necessity; And (5) All Other Required Approvals And Relief*, Case No. 2020-00174 at 80 (Ky. P.S.C. January 13, 2021). Kentucky Power intends to refile later this year for the necessary approvals to deploy AMI meters.

⁶⁰ See e.g. VR 1 at 5:15:58 PM; *id.* at 2:12:21 PM; Supplemental Testimony of Karl R. Rábago on Behalf of Joint Interveners at 7.

⁶¹ VR 1 at 5:15:58 PM; *id.* at 2:12:21 PM.

registering the flow of electricity in two (2) directions.” Company Witness Blankenship testified that although the Company’s current AMR meter could not be used to implement Tariff NMS II, the Company had available to it sufficient standard kilowatt-hour meters capable of measuring flow in two directions on a time of use basis that would allow it to implement NMS II.⁶²

Subsequent discovery confirmed that Kentucky Power had a total of over 300 such meters in inventory.⁶³ This inventory compares with the Company’s current census of 76 net metering customers.⁶⁴ Stated otherwise, even without AMI metering the Company can implement Tariff NMS II for nearly four times the number of net metering customers who initiated net metering service in the twelve years since implementation of the Commission’s net metering guidelines.

E. The Removal Of A Cap On The Cost Of Impact Studies Required For Level 2 Net Metering Customers Is Reasonable And Further Serves To Limit The Subsidy Paid By Non-Participating Customers.

“Assigning cost liability to the cost-causer is fundamental in utility regulation.” *In the Matter of: The Application Of Thoroughbred Generating Company, LLC For A Merchant Plant Construction Certificate In Muhlenberg County, Kentucky*, Case No 2002-000150 at 11 (Ky. State Bd. on Elec. Generation and Siting December 5, 2003). Kentucky Power proposed in Tariff NMS II to charge fees that more closely approximated the cost of performing the work required to implement net metering. Doing so not only advances the fundamental principle of utility regulation of assigning costs to the cost-causer, but reduces the subsidy paid by the majority non-participating customers in support of the net metering service taken by the very small minority of the Company’s customers.

⁶² VR 1 at 2:12:21 PM.

⁶³ Kentucky Power’s Response to KPSC PHDR-7.

⁶⁴ VR 1 at 5:49:20 PM.

Kentucky Power proposes to charge a \$150 application, inspection, and processing fee for each Level 1 and Level 2 application.⁶⁵ The proposed NMS II tariff also requires that the customer pay the reasonable costs for a Level 2 initial impact study.⁶⁶

Twelve years ago the Commission in Administrative Case No. 2008-00169 capped net metering fees⁶⁷ at levels below those proposed by the Company in its application in this case. The Order provides that no fees may charge in connection with applications for Level 1 applications; fees for Level 2 applications are capped at \$100.⁶⁸ Level 2 initial impact study fees are limited to the lesser of the reasonable cost of the study or \$1,000.⁶⁹

Company Witness West was questioned at the hearing regarding the need for a request for deviation from the Commission's January 8, 2009 Order in Case 2008-00169.⁷⁰ The Company's Application expressly requested approval of its proposed tariffs including proposed Tariff NMS II.⁷¹ That tariff included the requested fees. In addition, the Company expressly requested an Order granting Kentucky Power all further relief to which it might be entitled.⁷²

Kentucky Power fully disclosed the proposed Tariff NMS II fees and its request that the Commission approve them. Company Witness Vaughan provided written testimony with the

⁶⁵ Kentucky Power Application, Section II, Tariff Sheet 28-4.

⁶⁶ *Id.* The Company will document the cost of the impact study. *Id.*

⁶⁷ In the Matter of: Development Of Guidelines For Interconnection And Net Metering For Certain Generators With Capacity Up To Thirty Kilowatts, Administrative Case No. 2008-00169, Appendix A at 6 (Ky. P.S.C. January 8, 2009).

⁶⁸ *Id.*

⁶⁹ *Id.* Inflation over the intervening 12 years would increase the \$100 and \$1,000 caps imposed by the Commission in January 2009 to \$123.89 and \$1,238.89 in 2021 dollars. https://www.bls.gov/data/inflation_calculator.htm (last accessed April 15, 2021).

⁷⁰ VR 1 at 2:30:57 PM.

⁷¹ Kentucky Power Company's Application, Section I at 1, 10, and 20. Paragraph 18(f) of the application requested that the Commission approve "new Net Metering Service II tariff to provide net metering service to eligible customers consistent with the changes in Kentucky law occasioned by SB 100"

⁷² *Id.* at 1, 20.

application describing the requested fees, the bases for them, and the fact that the requested amounts still do not recover from the cost-causer the full cost of required work:

Q. PLEASE DESCRIBE THE PROPOSED CHANGE TO THE TARIFF NMS APPLICATION FEE.

- A. Proposed tariff NMS II includes higher application fee levels for both level 1 and level 2 net metering applications. Although the application fee levels are still not at full cost, they are closer to recovering the cost of these services than the previous charges were. NMS II also removes the \$1,000 limit on the level 2 system impact study costs if a study is deemed necessary for the proposed Level 2 installation. These studies require engineering expertise and can cost in excess of \$10,000. Currently all costs in excess of \$1,000 would be borne by the Company and its other customers, *and not the customer causing the cost.*⁷³

Further cost support for the fees, and the fact that they do not eliminate entirely the subsidy paid by non-participating customers, was provided by Kentucky Power in response to discovery in this case.⁷⁴

Kentucky Power acknowledges it did not use the phrase “request a deviation,” but nevertheless states the nature of the relief requested was fully disclosed and litigated. To the extent the Commission determines that Kentucky Power was required to ask for a deviation from the fee caps imposed by the Commission’s January 8, 2009 Order in Case No. 2008-00169, the Company requests that this brief be treated as such a request. Granting any required deviation would limit the subsidy being involuntarily extracted from non-participating customers and push costs to cost-causers in accordance with fundamental principles of utility regulation.

⁷³ Direct Testimony of Alex E. Vaughan at 28-29 (emphasis supplied).

⁷⁴ See e.g. KPCO_R_KYSEIA_1_2_Attachment1; KPCO_R_KPSC_8_1_Attachment1; Kentucky Power Company’s Response to KPSC 10-1; Kentucky Power Company’s Response to KPSC PHDR-4; Kentucky Power Company’s Response to KPSC PHDR-8.

IV. THE INTERVENORS' POSITIONS ARE UNREASONABLE OR UNSUPPORTED, AND THE COMMISSION SHOULD DISREGARD THEM.

A. The Commission May Safely Discard Mr. Rábago's Testimony In Favor Of The Cost-of-Service Methodology It Has Used To Establish Every Other Fair, Just, And Reasonable Rate In This Case.

Mr. Rábago's supplemental testimony presents a short horse that may be quickly carried. *See Ratliff v. Redmon*, 396 S.W.2d 320, 325 (Ky. 1965) ("This short horse is easily carried."). Although long on hyperbole and name-calling,⁷⁵ his testimony is devoid of any detail, much less data-based evidence, concerning the claimed short-comings in the multiple cost-of-service studies presented by Kentucky Power in support of its proposed Tariff NMS II rates. Instead, Mr. Rábago contents himself with declaiming at length about his preference for using benefit-cost analyses ("BCA") in general, and the National Standard Practice Manual for Benefit Cost-Analysis of Distributed Energy Resources ("NSPM-DER") in particular.

The body of Mr. Rábago's testimony comprises 25 pages. A full 17 pages of his testimony is devoted to tutoring the Commission on BCA and NSPM-DER. But Mr. Rábago does not write on a blank slate. KRS 278.466(3) unambiguously provides that "[t]he rate to be used for such compensation shall be set by the Commission using the ratemaking processes under this chapter..."⁷⁶ The statute thus does not direct the Commission to use a BCA, much less the NSPM-DER. Mr. Rábago concedes as much because KRS 278.466(3) and Chapter 278 of the Kentucky Revised Statutes are absent from his testimony despite the fact Mr. Rábago purports to instruct the Commission on how to implement their provisions.

⁷⁵ See e.g. Karl R. Rábago Supplemental Testimony at 7, 8.

⁷⁶ KRS 278.466(5) similarly provides "[u]sing the ratemaking process provided by this chapter"

Mr. Rábago’s confusion regarding KRS 278.466(3), and his misapprehension that a BCA is required,⁷⁷ appears to hinge on the slenderest of reeds. In fact, they appear wholly grounded in an excerpt from his clients’ earlier brief⁷⁸ in which they copy the text of a letter written by the Commission to Senator Brandon Smith, who sponsored SB 100, in 2019 when SB 100 was before the General Assembly. But the letter, as evidenced by the “Re” line, was directed to House Floor Amendment 1 (“HFA1”),⁷⁹ which the Senate refused to concur in, and from which the House receded.⁸⁰

The Commission’s letter, although noting its plenary ratemaking authority, explained that the provision of HFA1 limiting that plenary authority was “antithetical to standard principles of utility ratemaking”:

Benefits of generation from net-metered systems vary for a number of reasons, including locational benefits, specific utility load factors, etc. Statutory language explicitly dictating only what the Commission is to consider in a rate proceeding (as HFA 1 does in Section 2, paragraph 5)⁸¹ is antithetical to standard principles of utility ratemaking.⁸²

⁷⁷ Karl R. Rábago Supplemental Testimony at 14.

⁷⁸ See Karl R. Rábago Supplemental Testimony at 7 n. 9 & n.10.

⁷⁹ A copy of HFA1 is attached as **EXHIBIT 2**. Kentucky Power requests that the Commission take administrative notice of HFA1.

⁸⁰ See <https://apps.legislature.ky.gov/record/19rs/sb100.html#HFA1> (last accessed April 16, 2021). A copy is attached as **EXHIBIT 3** to this brief. Kentucky Power requests that the Commission take administrative notice of the webpage.

⁸¹ HFA1 added the following language to subsection (5), as introduced and subsequently enacted:

In addition to the costs to the retail electric supplier, the commission shall consider quantifiable benefits provided to the retail electric supplier and other customers with the same rate class provided by the generation customer-suppliers, which shall only include energy generation capacity, avoided transmission and distribution losses, transmission and distribution capacity benefits, fuel price uncertainty and hedging, market, and utility integration and interconnections costs. Eligible customer-generators shall belong to the same utility rate class they would otherwise belong to if they were not an eligible customer-generator.

House Floor Amendment 2 imposed a similar set of requirements. The House did not act on House Floor Amendment 2. A copy of HFA2 is attached as **EXHIBIT 4**. Kentucky Power requests that the Commission take administrative notice of HFA2.

⁸² Post-Hearing Brief of Joint Intervenors in Response to Post-Hearing Brief of Kentucky Power Company at 5-6, Case No. 2020-00174 (Ky. P.S.C. Filed December 14, 2020)

The Commission did not stop there. It continued in the letter by explaining that HFA1, including the requirement that the Commission consider the identified claimed benefits in fixing net metering rates, placed an unjust and unreasonable thumb on the ratemaking scale:

Unfortunately, instead of permitting the Commission to conduct proceedings addressing net-metered systems using established principles of utility ratemaking, ***the provisions of HFA 1 create a process that appears to favor the interests of a particular group over other stakeholders, including ratepayers.*** As such the Commission requests that the Senate reject HFA 1 to Senate Bill 100.⁸³

Mr. Rábago asks the Commission to do what the Commission criticized in its letter regarding HFA1. NSPM-DER, for example, would require the Commission to consider many of the same factors⁸⁴ specified by HFA1 and that the Commission considered unreasonable. Mr. Rábago even goes so far as to ask this Commission to favor the interests of a particular group – the ones who hired him – over those of other stakeholders, including other ratepayers. Instead of setting fair, just, and reasonable rates using “the ratemaking process” specified in Chapter 278, Mr. Rábago argues rates should be established that protect “the value proposition for private investment in DG” as well as the “investment-backed benefits from...” that investment, along with “the small DG industry in Kentucky...”⁸⁵

Mr. Rábago’s attack⁸⁶ on the data-based evidence provided by Kentucky Power in support of its proposed Tariff NMS II rates fares no better. Mr. Rábago neglects to detail any claimed methodological or input errors in the cost of service studies. Indeed, he never addresses,

⁸³ *Id.* at 6 (emphasis supplied).

⁸⁴ Karl R. Rábago Supplemental Testimony at 21-23.

⁸⁵ *Id.* at 7

⁸⁶ See generally *id.* at 5-9.

the two CCOS studies, although he had the opportunity to file supplemental rebuttal testimony. Nor does Mr. Rábago provide cost-of-service studies of his own.⁸⁷

Labeling the Company’s proposed rates “punitive” and “confiscatory” may play well on Twitter, but it falls far short of providing a basis for rejecting the Company’s multiple cost of service studies. Mr. Rábago stands mute on how establishing cost-of-service-based net metering rates would confiscate private investment or crush the nascent distributed generation industry.⁸⁸ Mr. Rábago even goes so far as to suggest that the Commission would be complicit in the Company’s efforts to “stifle, if not eliminate, the likelihood of customers deploying self-generation,” in “helping the Company maintain domination over electric generation in its service territory,” and in “making self-generation a difficult and uneconomic proposition for its customers”⁸⁹ if it were to set rates based on the Company’s cost-of-service studies.

The most egregious aspect of Mr. Rábago’s testimony is his inability, in fact the lack of even an attempt by him, to reconcile his position that a “BCA Framework *is essential* to establishing fair, just, and reasonable rates for DER services and technologies,”⁹⁰ with the fact that the Commission used cost-of-service ratemaking – and not a BCA framework – to establish every other rate found to be fair, just, and reasonable in this case, along with almost every other rate approved by it over the past decades. Nowhere in his testimony does Mr. Rábago point to another Kentucky Commission proceeding where the Commission used a BCA, much less the unwieldy NSPM-DER, to establish fair, just, and reasonable rates. In short, nothing in Mr. Rábago’s testimony provides a basis for this Commission to abandon the cost-of-service-based

⁸⁷ See Joint Intervenors’ Response to Kentucky Power Supp. Data Request No. 6 (Mar. 16, 2021).

⁸⁸ Karl R. Rábago Supplemental Testimony at 7, 8.

⁸⁹ *Id.* at 8-9.

⁹⁰ *Id.* at 14 (emphasis supplied).

ratemaking process used almost exclusively (if not exclusively) by it in conformity with Chapter 278 of the Kentucky Revised Statutes, and that comports with KRS 278.466(3), in favor of a process that, according to Mr. Rábago, has been available for decades⁹¹ but apparently never used by this Commission.

B. The Commission Should Disregard Mr. Inskeep’s Assertions, As They Are Unsupported By Record Evidence And The Net Metering Act.

KYSEIA Witness Inskeep’s testimony should be disregarded because it is unsupported by any evidence, such as the cost of service studies actually performed by the Company in this proceeding and would require unlawful action by the Commission. First, Mr. Inskeep asks the Commission to do what the Net Metering Act now prohibits: he asks the Commission to maintain the design of Kentucky Power’s existing Tariff NMS.⁹² Unlike prior Kentucky law, which permitted the netting of excess net metering generation on a volumetric basis, the Net Metering Act makes clear that netting under the current law is financial in nature, and not volumetric.⁹³ Tariff NMS no longer complies with Kentucky law (subject to the Net Metering Act’s grandfathering provisions), and the Commission cannot lawfully require Kentucky Power to provide service under its provisions to new net metering customers. Mr. Inskeep’s request to maintain Tariff NMS going forward should be rejected outright.

⁹¹ *Id.* at 10-12.

⁹² Inskeep Supp. Testimony at 4.

⁹³ *See* KRS 278.466(3) (providing that a retail electric supplier compensate its customers “for all electricity produced by the customer’s eligible electric generating facility that flows to the retail electric supplier” at a rate established using “the ratemaking processes” under Chapter 278); KRS 278.466(4) (providing for “dollar-denominated bill credits” to be paid for excess net generation); KRS 278.466(5) (authorizing a retail electric supplier to implement rates sufficient recover its costs to serve net metering customers); and KRS 278.466(6) (providing for the grandfathering of existing net metering customers in accordance with the net metering tariff provisions in place prior to the implementation of rates established under KRS 278.466(3) including the “one-to-one (1:1) kilowatt-hour denominated energy credit”); *see also* Kentucky Power’s Post-Hearing Brief at 92 (Dec. 8, 2020).

Mr. Inskeep further asks the Commission to ensure that changes in the Company’s net metering tariff reflect both the costs and benefits of net metering “that consider a long-term planning view,” and that the Commission adhere to the principal of gradualism in doing so.⁹⁴ As the Company has explained *supra*, proposed Tariff NMS II is fully supported by actual cost of service analysis, and fully takes into account each of the Company’s avoided costs in serving net metering customers. Proposed NMS II provides a fair, just, and reasonable transition away from full one-to-one kWh netting on all net metering system production to a cost-based structure required by SB 100.⁹⁵ Moreover, proposed Tariff NMS II employs the principals of gradualism in addressing the subsidy provided to net metering customers. In lieu of immediately transitioning to full cost of service rates, Tariff NMS II charges new net metering customers a rate for their net usage that is significantly *lower* than required by the net metering CCOS studies and general ratemaking principles.⁹⁶ Mr. Inskeep’s concerns about the costs, benefits, and the principal of gradualism therefore are fully addressed by the Company’s NMS II tariff proposal.

Mr. Inskeep goes on to make several assertions and suggestions in implementing a new net metering tariff that are unsupported by any record evidence. First, and importantly, KYSEIA confirmed that neither Mr. Inskeep nor Dr. McCann performed a full net metering CCOS study for this proceeding.⁹⁷ Mr. Inskeep submitted summaries of the results of other states’ net metering policy development procedures and results.⁹⁸ However, regardless of how any other

⁹⁴ Inskeep Supp. Test. at 4-5.

⁹⁵ Vaughan Supp. Rebuttal Test. at SR2.

⁹⁶ *Id.* at S6.

⁹⁷ See KYSEIA Response to Company Supp. Data Request No. 6 (Mar. 16, 2021).

⁹⁸ See Inskeep Supp. Test. at 15-21.

state implements new net metering policies, the Commission is limited to the requirements of the *Kentucky* Net Metering Act, when determining the reasonableness of proposed NMS II.

Proposed Tariff NMS II complies fully with the provisions of the Net Metering Act, and the Company's proposal is supported by substantial evidence of its reasonableness. Quite plainly, the Company is the only party to this proceeding that has developed and submitted any evidence either in favor of, or against, proposed Tariff NMS II.

Mr. Inskeep further suggests that “new installations [of net-metered generation] could decline to near zero in the future if Tariff NMS II is adopted.”⁹⁹ However, KYSEIA admits that this statement is not based on any record evidence.¹⁰⁰ Mr. Inskeep also alleges that NMS II would produce a “market-chilling effect” in the “absence of any Legacy Rights provisions in NMS II,”¹⁰¹ but provides no empirical evidence to support this assertion. Moreover, none of the legacy rights championed by Mr. Inskeep (*e.g.*, export credit rate lock, rate design assurance, time-of-day rate window flexibility, tariff terms and conditions lock, and explicit provisions addressing system additions)¹⁰² are required under, or contemplated by, the Net Metering Act.

Finally, Mr. Inskeep argues that the rates, terms, and conditions in effect at the time the generating facility goes into service should continue to apply to that customer for the life of the facility.¹⁰³ First, this argument suggests that the Commission should treat net metering customers in a way that no other customers or rate classes are treated, and is contrary to Kentucky law. The Supreme Court of Kentucky made clear in *Ky. Indus. Util. Customers, Inc. v.*

⁹⁹ Inskeep Supp. Test. at 7.

¹⁰⁰ See KYSEIA Response to Company Supp, Data Request No. 8.

¹⁰¹ *Id.*

¹⁰² See Inskeep Supp. Test. at 24-25.

¹⁰³ See generally *id.*

Ky. Util. Co. that “consumers have no vested property interest in the rates they pay, even for a regulated monopoly utility service.”¹⁰⁴ Second, Mr. Inskeep’s proposal would not only yield a multiplicity of tariff classifications as net metering develops, but also could prevent legacy customers from taking advantage of later-filed and more advantageous tariff provisions because such customers would be locked in to the tariff provisions in effect at the time the customer’s facility went into service. Such a tariff structure would be burdensome to administer by Kentucky Power and the Commission. It also risks running afoul of KRS 278.170(1) by providing differing rates and terms of service for customers receiving “like and contemporaneous service under the same or substantially the same conditions.”

In sum, Mr. Inskeep’s assertions are unsupported by any evidence, contrary to the Net Metering Act, and are illogical and would be burdensome to implement. The Commission should reject outright Mr. Inskeep’s assertions regarding proposed NMS II and instead implement Tariff NMS II as proposed.

C. The Commission Should Likewise Reject Dr. McCann’s Testimony.

Dr. McCann asserts that the Commission employ the concept of gradualism in considering the Company’s NMS II proposal, so that customers are able to “invest with certainty when Kentucky and the United States set out policy objectives.”¹⁰⁵ Again, the Company has employed the concept of gradualism in proposing Tariff NMS II by incrementally reducing under Tariff NMS II the subsidy provided to net metering customers. Given that the Company’s proposal is supported by substantial evidence, including separate net metering CCOS studies,

¹⁰⁴ 983 S.W.2d 493, 499 (Ky. 1998).

¹⁰⁵ McCann Supp. Test. at 4.

coupled with the fact that Dr. McCann provides no evidence in support of his suggested tariff design considerations, the Commission should disregard Dr. McCann's suggestions.

Dr. McCann also argues that self-generating customers should receive the same level of financial assurances as other generators. However, under the Company's current Tariff NMS net metering customers are receiving greater financial benefits (in the form of the one-to-one crediting at the full retail rate) than other generators without assuming the same responsibilities and risks.¹⁰⁶ The Company's proposed Tariff NMS II incorporates gradualism while reducing the subsidy evidenced by the Company's net metering CCOS studies paid by non-participating customers. The proposed NMS II avoided cost-based rates are fully supported by evidence of record. Conversely, the alternative rate designs proposed by the Joint Intervenors and KYSEIA are unsupported by evidence of record and are at war with the requirements of the Net Metering Act.

V. CONCLUSION

Kentucky Power respectfully requests that the Commission approve Tariff NMS II, including the rates proposed by Company Witness Vaughan in his rebuttal testimony.

Respectfully submitted,



Mark R. Overstreet
Katie M. Glass
STITES & HARBISON PLLC
421 West Main Street
P.O. Box 634
Frankfort, Kentucky 40602-0634
Telephone: (502) 223-3477
moverstreet@stites.com
kglass@stites.com

¹⁰⁶ Vaughan Supp. Rebuttal Test. at SR4.

Christen M. Blend (*pro hac vice*)
Hector Garcia-Santana (*pro hac vice*)
Tanner S. Wolfram (*pro hac vice*)
American Electric Power Service Corporation
1 Riverside Plaza, 29th Floor
Columbus, Ohio 43215
Telephone: (614) 716-1915 (Blend)
cblend@aep.com
hgarcia1@aep.com
tswolfram@aep.com

COUNSEL FOR
KENTUCKY POWER COMPANY

Exhibit 1 – NMS II Tariff

TARIFF N.M.S. II
(Net Metering Service II)

N

AVAILABILITY OF SERVICE.

Net Metering is available to eligible customer-generators in the Company's service territory, upon request, and on a first-come, first-served basis up to a cumulative capacity of one percent (1%) of the Company's single hour peak load in Kentucky during the previous year. If the cumulative generating capacity of net metering systems reaches 1% of the Company's single hour peak load during the previous year, upon Commission approval, the Company's obligation to offer net metering to a new customer-generator may be limited. An eligible customer-generator shall mean a retail electric customer of the Company with a generating facility that:

- (1) Generates electricity using solar energy, wind energy, biomass or biogas energy, or hydro energy;
- (2) Has a rated capacity of not greater than forty-five (45) kilowatts;
- (3) Is located on the customer's premises;
- (4) Is owned and operated by the customer;
- (5) Is connected in parallel with the Company's electric distribution system; and
- (6) Has the primary purpose of supplying all or part of the customer's own electricity requirements.

At its sole discretion, the Company may provide Net Metering to other customer-generators not meeting all the conditions listed above on a case-by-case basis.

The term "Customer" hereinafter shall refer to any customer requesting or receiving Net Metering services under this tariff.

METERING.

Net energy metering shall be accomplished using a time of use ("TOU") kilowatt-hour meter capable of measuring the flow of electricity in two (2) directions. If the existing electrical meter installed at the customer's facility is not capable of measuring the flow of electricity in two directions, the Company will provide the customer with the appropriate metering at no additional cost to the customer. If the customer requests any additional meter or meters or if distribution upgrades are needed to monitor the flow in each direction, such installations shall be at the customer's expense.

BILLING/MONTHLY CHARGES.

For determining monthly billing kWh and excess customer generation kWh, two TOU netting periods will be used:

1. TOU period 1 shall be from 8:00 AM to 6:00 PM all days of the week and holidays
2. TOU period 2 shall be from 6:00 PM to 8:00 AM all days of the week and holidays

All net billing kWh and kW in each netting period, accumulated for the billing period, shall be charged at the rates applicable under the Company's standard service tariff under which the customer would otherwise be served, absent the customer's electric generating facility.

Energy charges under the customer's standard tariff shall be applied to the customer's net energy for the billing period to the extent that the net energy exceeds zero. If the customer's net energy is zero or negative during the billing period, the customer shall pay only the non-energy charge portions of the standard tariff bill.

All excess customer generation, (net negative energy or "NNE"), in each netting period, accumulated for the billing period, shall be credited at the avoided cost rate of 0.03553 \$/kWh for Residential and 0.03778 \$/kWh for non-residential each month.

Bill credits to customers for NNE at the avoided cost rate each month is a purchased power expense and shall be recovered from all customers through the Company's Purchased Power Adjustment Rider. If the NNE credit exceeds the customer's billed charges that month, the amount in excess of the billed charges will be carried over for use in subsequent billing periods.

(Cont'd on Sheet No. 28-2)

DATE OF ISSUE: April 9, 2021

DATE EFFECTIVE: Service Rendered On And After January 14, 2021

ISSUED BY: /s/ Brian K. West

TITLE: Vice President, Regulatory & Finance

By Authority of Orders of the Public Service Commission

In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II (Cont'd)
(Net Metering Service II)

N

APPLICATION AND APPROVAL PROCESS.

The Customer shall submit an Application for Interconnection and Net Metering ("Application") and receive approval from the Company prior to connecting the generator facility to the Company's system.

Applications will be submitted by the Customer and reviewed and processed by the Company according to either Level 1 or Level 2 processes defined below.

The Company may reject an Application for violations of any code, standard, or regulation related to reliability or safety; however, the Company will work with the Customer to resolve those issues to the extent practicable.

Customers may contact the Company to check on the status of an Application or with questions prior to submitting an Application. Company contact information can be found on Kentucky Power Company's Application Form or on the Company's website.

LEVEL 1 AND LEVEL 2 DEFINITIONS.**LEVEL 1**

A Level 1 Application shall be used if the generating facility is inverter-based and is certified by a nationally recognized testing laboratory to meet the requirements of Underwriters Laboratories Standard 1741 "Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources" (UL 1741).

The Company will approve the Level 1 Application if the generating facility also meets all of the following conditions:

- (1) For interconnection to a radial distribution circuit, the aggregated generation on the circuit, including the proposed generating facility, will not exceed 15% of the Line Section's most recent annual 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) If the proposed generating facility is to be interconnected on a single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed generating facility, will not exceed the smaller of 20 kVA or the nameplate rating of the transformer.
- (3) If the proposed generating facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition 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.
- (4) If the generating facility is to be connected to three-phase, three wire primary Company distribution lines, the generator shall appear as a phase-to-phase connection at the primary Company distribution line.
- (5) If the generating facility is to be connected to three-phase, four wire primary Company distribution lines, the generator shall appear to the primary Company distribution line as an effectively grounded source.
- (6) The interconnection will not be on an area or spot network.
- (7) The Company does not identify any violations of any applicable provisions of IEEE 1547, "Standard for Interconnecting Distributed Resources with Electric Power Systems."
- (8) No construction of facilities by the Company on its own system will be required to accommodate the generating facility.

(Cont'd on Sheet No. 28-3)

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TARIFF N.M.S.II (Cont'd)
(Net Metering Service II)**LEVEL 1, continued**

N

If the generating facility does not meet all of the above listed criteria, the Company, in its sole discretion, may either: 1) approve the generating facility under the Level 1 Application if the Company determines that the generating facility can be safely and reliably connected to the Company's system; or 2) deny the Application as submitted under the Level 1 Application.

The Company shall notify the customer within 20 business days whether the Application is approved or denied, based on the criteria provided in this section.

If the Application lacks complete information, the Company shall notify the customer that additional information is required, including a list of such additional information. The time between notification and receipt of required additional information will add to the time to process the Application.

When approved, the Company will indicate by signing the approval line on the Level 1 Application Form and returning it to the customer. The approval will be subject to successful completion of an initial installation inspection and witness test if required by the Company. The Company's approval section of the Application will indicate if an inspection and witness test are required. If so, the customer shall notify the Company within 3 business days of completion of the generating facility installation and schedule an inspection and witness test with the Company to occur within 10 business days of completion of the generator facility installation or as otherwise agreed to by the Company and the customer. The customer may not operate the generating facility until successful completion of such inspection and witness test, unless the Company expressly permits operational testing not to exceed two hours. If the installation fails the inspection or witness test due to noncompliance with any provision in the Application and Company approval, the customer shall not operate the generating facility until any and all noncompliance is corrected and re-inspected by the Company.

If the Application is denied, the Company will supply the customer with reasons for denial. The customer may resubmit under Level 2 if appropriate.

LEVEL 2

A Level 2 Application is required under any of the following:

- (1) The generating facility is not inverter based;
- (2) The generating facility uses equipment that is not certified by a nationally recognized testing laboratory to meet the requirements of UL 1741; or
- (3) The generating facility does not meet one or more of the additional conditions under Level 1.

The Company will approve the Level 2 Application if the generating facility meets the Company's technical interconnection requirements, which are based on IEEE 1547. The Company shall make its technical interconnection requirements available online and upon request.

(Cont'd on Sheet No. 28-4)

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TARIFF N.M.S. 11 (Cont'd)
(Net Metering Service II)

N

LEVEL 2, continued

The Company will process the Level 2 Application within 30 business days of receipt of a complete Application. Within that time the Company will respond in one of the following ways:

- (1) The Application is approved and the Company will provide the customer with an Interconnection Agreement to sign.
- (2) If construction or other changes to the Company's distribution system are required, the cost will be the responsibility of the customer. The Company will give notice to the customer and offer to meet to discuss estimated costs and construction timeframe. Should the customer agree to pay for costs and proceed, the Company will provide the customer with an Interconnection Agreement to sign within a reasonable time.
- (3) The Application is denied. The Company will supply the customer with reasons for denial and offer to meet to discuss possible changes that would result in Company approval. Customer may resubmit Application with changes.

If the Application lacks complete information, the Company shall notify the customer that additional information is required, including a list of such additional information. The time between notification and receipt of required additional information will add to the 30-business-day target to process the Application.

The Interconnection Agreement will contain all the terms and conditions for interconnection consistent with those specified in this tariff, inspection and witness test requirements, description of and cost of construction or other changes to the Company's distribution system required to accommodate the generating facility, and detailed documentation of the generating facilities which may include single line diagrams, relay settings, and a description of operation.

The customer may not operate the generating facility until an Interconnection Agreement is signed by the customer and Company and all necessary conditions stipulated in the agreement are met.

APPLICATION, INSPECTION AND PROCESSING FEES.

The Company will require each customer to submit with each Level 1 Application a non-refundable application, inspection and processing fee of \$150.

The Company will require each customer to submit with each Level 2 Application a non-refundable application, inspection and processing fee of \$150. In the event the Company determines an impact study is necessary with respect to a Level 2 Application, the customer shall be responsible for any reasonable costs for the initial impact study. The Company shall provide documentation of the actual cost of the impact study. Any other studies requested by the customer shall be at the customer's sole expense.

(Cont'd on Sheet No. 28-5)

DATE OF ISSUE: April 9, 2021

DATE EFFECTIVE: Service Rendered On And After January 14, 2021

ISSUED BY: /s/ Brian K. West

TITLE: Vice President, Regulatory & Finance

By Authority of Orders of the Public Service Commission

In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II (Cont'd)
(Net Metering Service II)**TERMS AND CONDITIONS FOR INTERCONNECTION.**

N

To interconnect to the Company's distribution system, the customer's generating facility shall comply with the following terms and conditions:

- (1) The Company shall provide the customer net metering services, without charge for standard TOU metering equipment, through a standard kilowatt-hour metering system capable of measuring the flow of electricity in two (2) directions. If the customer requests any additional meter or meters or distribution upgrades are needed to monitor the flow in each direction, such installations shall be at the customer's expense.
- (2) The customer shall install, operate, and maintain, at customer's sole cost and expense, any control, protective, or other equipment on the customer's system required by the Company's technical interconnection requirements based on IEEE 1547, the NEC, accredited testing laboratories such as Underwriters Laboratories, and the manufacturer's suggested practices for safe, efficient and reliable operation of the generating facility in parallel with Company's electric system. Customer shall bear full responsibility for the installation, maintenance and safe operation of the generating facility. Upon reasonable request from the Company, the customer shall demonstrate generating facility compliance.
- (3) The generating facility shall comply with, and the customer shall represent and warrant its compliance with: (a) any applicable safety and power quality standards established by IEEE and accredited testing laboratories such as Underwriters Laboratories; (b) the NEC as may be revised from time to time; (c) Company's rules, regulations, and Company's Terms and Conditions of Service as contained in Company's Retail Electric Tariff as may be revised from time to time with the approval of the Kentucky Public Service Commission (Commission); (d) the rules and regulations of the Commission, as such rules and regulations may be revised from time to time by the Commission; and (e) all other applicable local, state, and federal codes and laws, as the same may be in effect from time to time. Where required by law, customer shall pass an electrical inspection of the generating facility by a local authority having jurisdiction over the installation.
- (4) Any changes or additions to the Company's system required to accommodate the generating facility shall be considered excess facilities. Customer shall agree to pay Company for actual costs incurred for all such excess facilities prior to construction.
- (5) Customer shall operate the generating facility 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. At all times when the generating facility is being operated in parallel with 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. Customer shall agree that the interconnection and operation of the generating facility is secondary to, and shall not interfere with, Company's ability to meet its primary responsibility of furnishing reasonably adequate service to its customers.

(Cont'd on Sheet No. 28-6)

DATE OF ISSUE: April 9, 2021

DATE EFFECTIVE: Service Rendered On And After January 14, 2021

ISSUED BY: /s/ Brian K. West

TITLE: Vice President, Regulatory & Finance

By Authority of Orders of the Public Service Commission

In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

TERMS AND CONDITIONS FOR INTERCONNECTION, continued

- (6) Customer shall be responsible for protecting, at customer's sole cost and expense, the 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 the Company shall be responsible for repair of damage caused to the generating facility resulting solely from the negligence or willful misconduct on the part of the Company.
- (7) After initial installation, Company shall have the right to inspect and/or witness commissioning tests, as specified in the Level 1 or Level 2 Application and approval process. 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 generating facility comply with the requirements of this tariff.
- (8) For Level 1 and 2 generating facilities, where required by the Company, an eligible customer shall furnish and install on customer's side of the point of common coupling a safety disconnect switch which shall be capable of fully disconnecting the customer's energy generating equipment from Company's electric service under the full rated conditions of the customer's generating facility. 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, the customer shall be responsible for ensuring that the location of the EDS is properly and legibly identified for so long as the generating facility is operational. The disconnect switch shall be accessible to Company personnel at all times. The Company may waive the requirement for an EDS for a generating facility at its sole discretion, and on a case-by-case basis, upon review of the generating facility operating parameters and if permitted under the Company's safety and operating protocols.

The Company shall establish a training protocol for line workers on the location and use of the EDS, and shall require that the EDS be used when appropriate, and that the switch be turned back on once the disconnection is no longer necessary.

- (9) 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 generating facility if Company believes that: (a) continued interconnection and parallel operation of the generating facility 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 generating facility is not in compliance with the requirements of this tariff, and the noncompliance adversely affects the safety, reliability, or power quality of Company's electric system; or (c) the generating facility 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, when the Company is unable to immediately isolate or cause the customer to isolate only the generating facility, the Company may isolate the customer's entire facility.

(Cont'd on Sheet No. 28-7)

DATE OF ISSUE: April 9, 2021

DATE EFFECTIVE: Service Rendered On And After January 14, 2021

ISSUED BY: /s/ Brian K. West

TITLE: Vice President, Regulatory & Finance

By Authority of Orders of the Public Service Commission

In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

TERMS AND CONDITIONS FOR INTERCONNECTION, continued

- (10) Customer shall agree that, without the prior written permission from Company, no changes shall be made to the generating facility as initially approved. Increases in generating facility 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 generating facility capacity are allowed without approval.
- (11) To the extent permitted by law, the customer shall protect, indemnify, and hold harmless the 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 of persons or damage to property caused by the customer or the customer's employees, agents, representatives and contractors in tampering with, repairing, maintaining, or operating the customer's generating facility or any related equipment or any facilities owned by the Company except where such injury, death or damage was caused or contributed to by the fault or negligence of the Company or its employees, agents, representatives, or contractors.
- The liability of the Company to the customer for injury to person and property shall be governed by the tariff(s) for the class of service under which the customer is taking service.
- (12) The customer shall maintain general liability insurance coverage (through a standard homeowner's, commercial, or other policy) for both Level 1 and Level 2 generating facilities. Customer shall, upon request, provide Company with proof of such insurance at the time that application is made for net metering.
- (13) 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.
- (14) A 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 the customer in writing and list what must be done to place the facility in compliance.
- (15) The customer shall retain any and all Renewable Energy Credits (RECs) that may be generated by their generating facility.

(Cont'd on Sheet No. 28-8)

DATE OF ISSUE: April 9, 2021DATE EFFECTIVE: Service Rendered On And After January 14, 2021ISSUED BY: /s/ Brian K. WestTITLE: Vice President, Regulatory & FinanceBy Authority of Orders of the Public Service CommissionIn Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

TERM OF CONTRACT.

Any contract required under this tariff shall become effective when executed by both parties and shall continue in effect until terminated. The contract may be terminated as follows: (a) Customer may terminate the contract at any time by giving the Company at least sixty (60) days' written notice; (b) Company may terminate upon failure by the customer to continue ongoing operation of the generating facility; (c) either party may terminate by giving the other party at least thirty (30) days prior written notice that the other party is in default of any of the terms and conditions of the contract or the rules or any rate schedule, tariff, regulation, contract, or policy of the Company, so long as the notice specifies the basis for termination and there is opportunity to cure the default; (d) the Company may terminate by giving the customer at least thirty (30) days notice in the event that there is a material change in an applicable law, regulation or statute affecting this Agreement or which renders the system out of compliance with the new law or statute.

SPECIAL TERMS AND CONDITIONS.

This tariff is subject to the Company's Terms and Conditions of Service and all provisions of the standard service tariff under which the customer takes service. This tariff is also subject to the applicable provisions of the Company's Technical Requirements for Interconnection.

(Cont'd on Sheet No. 28-9)

DATE OF ISSUE: April 9, 2021

DATE EFFECTIVE: Service Rendered On And After January 14, 2021

ISSUED BY: /s/ Brian K. West

TITLE: Vice President, Regulatory & Finance

By Authority of Orders of the Public Service Commission

In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

Application For Interconnection And Net Metering – Level 1

Use this Application only for: 1.) a generating facility that is inverter based and certified by a nationally recognized testing laboratory to meet the requirements of UL 1741, 2.) less than or equal to 45 kW generation capacity, and 3.) connecting to Kentucky Power distribution system.

Submit this Application (along with the application fee of \$150) to:

D.G. Coordinator American Electric Power
1 Riverside Plaza
Columbus, Ohio 43215-2373
614-716-4020 Office / 614-716-1414 Fax
dgcoordinator@aep.com

(Contract person listed is subject to change. Please visit our website for up-to-date-information <http://www.kentuckypower.com>)

Applicant

Name:

Mailing Address:

City:

State:

Zip:

Phone: (____) _____

Phone: (____) _____

E-mail address:

Service Location

Name:

Street Address:

City:

State:

Zip:

Electric Service Account Number

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

Alternate Contacts

Name

Company

Telephone/Email

(Cont'd on Sheet No. 28-10)

DATE OF ISSUE: April 9, 2021

DATE EFFECTIVE: Service Rendered On And After January 14, 2021

ISSUED BY: /s/ Brian K. West

TITLE: Vice President, Regulatory & Finance

By Authority of Orders of the Public Service Commission

In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

**TARIFF N.M.S. II
(Net Metering Service II)**

**APPLICATION FOR INTERCONNECTION AND NET METERING,
LEVEL 1 – CONTINUED**

Equipment Qualifications

Energy Source:	() Solar	() Wind	() Hydro	() Biogas	() Biomass
Inverter Manufacturer:	Model:				
Inverter Power Rating:	Voltage Rating:				
Power Rating of Energy Source (i.e., solar panels, wind turbine):					
Battery Storage:	() Yes	() No	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 locations of Kentucky Power Company meter, energy source, accessible disconnect switch and inverter.

Attach single line drawing showing all electrical equipment from the 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: _____

(Cont'd on Sheet No. 28-11)

DATE OF ISSUE: April 9, 2021
DATE EFFECTIVE: Service Rendered On And After January 14, 2021
ISSUED BY: /s/ Brian K. West
TITLE: Vice President, Regulatory & Finance
By Authority of Orders of the Public Service Commission
In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

TERMS AND CONDITIONS FOR LEVEL 1:

- 1 The Company shall provide customer net metering services, without charge for standard metering equipment, through a standard kilowatt-hour metering system capable of measuring the flow of electricity in two (2) directions. If the customer requests any additional meter or meters or distribution upgrades are needed to monitor the flow in each direction, such installations shall be at the customer's expense.
- 2 Customer shall install, operate, and maintain, at customer's sole cost and expense, any control, protective, or other equipment on the customer's system required by the Company's technical interconnection requirements based on IEEE 1547, the NEC, accredited testing laboratories such as Underwriters Laboratories, and the manufacturer's suggested practices for safe, efficient, and reliable operation of the generating facility in parallel with Company's electric system. Customer shall bear full responsibility for the installation, maintenance, and safe operation of the generating facility. Upon reasonable request from the Company, customer shall demonstrate generating facility compliance.
- 3 The generating facility shall comply with, and the customer shall represent and warrant its compliance with: (a) any applicable safety and power quality standards established by the Institute of Electrical and Electronics Engineers (IEEE) and accredited testing laboratories such as Underwriters Laboratories (UL); (b) the National Electrical Code (NEC) as may be revised from time to time; (c) Company's rules, regulations, and Company's Terms and Conditions of Service as contained in Company's Retail Electric Tariff as may be revised from time to time with the approval of the Kentucky Public Service Commission (Commission); (d) the rules and regulations of the Commission, as such rules and regulations may be revised from time to time by the Commission; and (e) all other applicable local, state, and federal codes and laws, as the same may be in effect from time to time. Where required by law, customer shall pass an electrical inspection of the generating facility by a local authority having jurisdiction over the installation.
- 4 Any changes or additions to the Company's system required to accommodate the generating facility shall be considered excess facilities. Customer shall agree to pay Company for actual costs incurred for all such excess facilities prior to construction.
- 5 Customer shall operate the generating facility 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. At all times when the generating facility is being operated in parallel with 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. Customer shall agree that the interconnection and operation of the generating facility is secondary to, and shall not interfere with, Company's ability to meet its primary responsibility of furnishing reasonably adequate service to its customers.
- 6 Customer shall be responsible for protecting, at customer's sole cost and expense, the 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 the Company shall be responsible for repair of damage caused to the generating facility resulting solely from the negligence or willful misconduct on the part of the Company.

(Cont'd on Sheet No. 28-12)

DATE OF ISSUE: April 9, 2021DATE EFFECTIVE: Service Rendered On And After January 14, 2021ISSUED BY: /s/ Brian K. WestTITLE: Vice President, Regulatory & FinanceBy Authority of Orders of the Public Service CommissionIn Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

TERMS AND CONDITIONS FOR LEVEL 1, continued

- 7 After initial installation, Company shall have the right to inspect and/or witness commissioning tests, as specified in the Level 1 or Level 2 Application and approval process. 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 generating facility comply with the requirements of this tariff.
- 8 For Level 1 generating facilities, where required by the Company, an eligible customer shall furnish and install on customer's side of the point of common coupling a safety disconnect switch which shall be capable of fully disconnecting the customer's energy generating equipment from Company's electric service under the full rated conditions of the customer's generating facility. 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, the customer shall be responsible for ensuring the location of the EDS is properly and legibly identified for so long as the generating facility is operational. The disconnect switch shall be accessible to Company personnel at all times. The Company may waive the requirement for an EDS for a generating facility at its sole discretion, and on a case-by-case basis, upon review of the generating facility operating parameters and if permitted under the Company's safety and operating protocols.
- The Company shall establish a training protocol for line workers on the location and use of the EDS, and shall require that the EDS be used when appropriate, and that the switch be turned back on once the disconnection is no longer necessary.
- 9 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 generating facility if Company believes that: (a) continued interconnection and parallel operation of the generating facility 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 generating facility is not in compliance with the requirements of this tariff, and the noncompliance adversely affects the safety, reliability or power quality of Company's electric system; or (c) the generating facility 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, when the Company is unable to immediately isolate or cause the customer to isolate only the generating facility, the Company may isolate the customer's entire facility.
- 10 Customer shall agree that, without the prior written permission from Company, no changes shall be made to the generating facility as initially approved. Increases in generating facility 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 generating facility capacity are allowed without approval.

(Cont'd on Sheet No. 28-13)

DATE OF ISSUE: April 9, 2021DATE EFFECTIVE: Service Rendered On And After January 14, 2021ISSUED BY: /s/ Brian K. WestTITLE: Vice President, Regulatory & FinanceBy Authority of Orders of the Public Service CommissionIn Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

TERMS AND CONDITIONS FOR LEVEL 1, continued

- 11 To the extent permitted by law, the customer shall protect, indemnify, and hold harmless the 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 of persons or damage to property caused by the customer or the customer's employees, agents, representatives and contractors in tampering with, repairing, maintaining or operating the customer's generating facility or any related equipment or any facilities owned by the Company except where such injury, death or damage was caused or contributed to by the fault or negligence of the Company or its employees, agents, representatives, or contractors.
- The liability of the Company to the customer for injury to person and property shall be governed by the tariff(s) for the class of service under which the customer is taking service.
- 12 The Customer shall maintain general liability insurance coverage (through a standard homeowner's, commercial, or other policy) for Level 1 generating facilities. Customer shall, upon request, provide Company with proof of such insurance at the time that application is made for net metering.
- 13 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.
- 14 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 the customer in writing and list what must be done to place the facility in compliance.
- 15 The customer shall retain any and all Renewable Energy Credits ("RECs") that may be generated by their generating facility.

(Cont'd on Sheet No. 28-14)

DATE OF ISSUE: April 9, 2021DATE EFFECTIVE: Service Rendered On And After January 14, 2021ISSUED BY: /s/ Brian K. WestTITLE: Vice President, Regulatory & FinanceBy Authority of Orders of the Public Service CommissionIn Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

**TARIFF N.M.S. II
(Net Metering Service II)**

N

TERMS AND CONDITIONS FOR LEVEL 1, continued

Effective Term and Termination Rights

This Agreement becomes effective when executed by both parties and shall continue in effect until terminated. This Agreement may be terminated as follows: (a) Customer may terminate this Agreement at any time by giving the Company at least sixty (60) days' written notice; (b) Company may terminate upon failure by the Customer to continue ongoing operation of the generating facility; (c) either party may terminate by giving the other party at least thirty (30) days prior written notice that the other party is in default of any of the terms and conditions of the Agreement or the Rules or any rate schedule, tariff, regulation, contract, or policy of the Company, so long as the notice specifies the basis for termination and there is opportunity to cure the default; (d) the Company may terminate by giving the Customer at least thirty (30) days notice in the event that there is a material change in an applicable law, regulation or statute affecting this Agreement or which renders the system out of compliance with the new law or statute. I hereby certify that, to the best of my knowledge, all of the information provided in this Application is true, and I agree to abide by all the Terms and Conditions included in this Application for Interconnection and Net Metering and Company's Net Metering Tariff.

Customer Signature: _____ **Date:** _____

COMPANY APPROVAL SECTION

When signed below by a Company representative, Application for Interconnection and Net Metering is approved subject to the provisions contained in this Application and as indicated below.

Company inspection and witness test: () Required () Waived

If Company inspection and witness test is required, Customer shall notify the Company within three (3) business days of completion of the generating facility installation and schedule an inspection and witness test with the Company to occur within ten (10) business days of completion of the generating facility installation or as otherwise agreed to by the Company and the Customer. Unless indicated below, the Customer may not operate the generating facility until such inspection and witness test is successfully completed. Additionally, the Customer may not operate the generating facility until all other terms and conditions in the Application have been met.

Call: _____ to schedule an inspection and witness test.

Pre-Inspection operational testing not to exceed two (2) hours: () Allowed () Not Allowed

If Company inspection and witness test is waived, operation of the generating facility may begin when installation is complete, and all other terms and conditions in the Application have been met.

Additions, Changes, or Clarifications to Application Information: () None () As specified here:

Approved by: _____ **Date:** _____

Printed Name: _____ **Title:** _____

(Cont'd on Sheet No. 28-15)

DATE OF ISSUE: April 9, 2021
DATE EFFECTIVE: Service Rendered On And After January 14, 2021
ISSUED BY: /s/ Brian K. West
TITLE: Vice President, Regulatory & Finance
By Authority of Orders of the Public Service Commission
In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

Application for Interconnection and Net Metering – Level 2

Use this Application form for connecting to the Kentucky Power distribution system and: 1.) the generating facility is not inverter based or is not certified by a nationally recognized testing laboratory to meet the requirements of UL 1741 or 2.) does not meet any of the additional conditions under a Level 1 Application (inverter based and less than or equal to 45kW generation).

Submit this Application (along with the application fee of \$150) to:

D.G. Coordinator
American Electric Power
1 Riverside Plaza
Columbus, Ohio 43215-2373
614-716-4020 Office / 614-716-1414 Fax
dgcoordinator@aep.com

(Contact person listed is subject to change. Please visit our website for up-to-date information <http://www.kentuckypower.com>)

Applicant

Name:

Mailing Address:

City:

State:

Zip:

Phone: ()

Phone: ()

E-mail address:

Service Location

Name:

Street Address:

City:

State:

Zip:

Electric Service Account Number

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

Alternate Contacts

Name

Company

Telephone/Email

(Cont'd on Sheet No. 28-16)

DATE OF ISSUE: April 9, 2021

DATE EFFECTIVE: Service Rendered On And After January 14, 2021

ISSUED BY: /s/ Brian K. West

TITLE: Vice President, Regulatory & Finance

By Authority of Orders of the Public Service Commission

In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

APPLICATION FOR INTERCONNECTION AND NET METERING,
LEVEL 2 - CONTINUED

Equipment Qualifications

Total Generating Capacity (kW) of the Generating Facility:

Type of Generator: Inverter-Based Synchronous Induction

Energy Source: Solar Wind Hydro Biogas Biomass

Attach documentation showing that inverter is certified by a nationally recognizes testing laboratory to meet the requirements of UL 1741.

Attach site drawing or sketch showing locations of Kentucky Power Company meter, energy source, accessible disconnect switch and inverter.

Attach single line drawing showing all electrical equipment from the 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: _____

(Cont'd on Sheet No. 28-17)

DATE OF ISSUE: April 9, 2021
DATE EFFECTIVE: Service Rendered On And After January 14, 2021
ISSUED BY: /s/ Brian K. West
TITLE: Vice President, Regulatory & Finance
By Authority of Orders of the Public Service Commission
In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

**TARIFF N.M.S. II
(Net Metering Service II)**

N

Interconnection Agreement – Level 2

This Interconnection Agreement (Agreement) is made and entered into this ____ day of _____, 20____, by and between Kentucky Power Company (Company), and _____ (Customer). Company and Customer are hereinafter sometimes referred to individually as “Party” or collectively as “Parties”

Witnesseth:

Whereas, Customer is installing, or has installed, generating equipment, controls, and protective relays and equipment (Generating Facility) used to interconnect and operate in parallel with Company’s electric system, which Generating Facility is more fully described in Exhibit A, attached hereto and incorporated herein by this Agreement, and as follows:

Location: _____

Generator Size and Type: _____

Now, therefore, in consideration thereof, Customer and Company agree as follows:

Company agrees to allow Customer to interconnect and operate the generating Facility in parallel with the Company’s electric system and Customer agrees to abide by Company’s Net Metering Tariff and all Terms and Conditions listed in this Agreement including any additional conditions listed in Exhibit A.

(Cont’d on Sheet No. 28-18)

DATE OF ISSUE: April 9, 2021
DATE EFFECTIVE: Service Rendered On And After January 14, 2021
ISSUED BY: /s/ Brian K. West
TITLE: Vice President, Regulatory & Finance
By Authority of Orders of the Public Service Commission
In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

TERMS AND CONDITIONS FOR LEVEL 2:

To interconnect to the Kentucky Power Company (Company) distribution system, the customer's generating facility shall comply with the following terms and conditions:

1. Company shall provide customer net metering services, without charge for standard metering equipment, through a standard kilowatt-hour metering system capable of measuring the flow of electricity in two (2) directions. If the customer requests any additional meter/meters or distribution upgrades are needed to monitor the flow in each direction, such installations shall be at the customer's expense.
2. Customer shall install, operate, and maintain, at customer's sole cost and expense, any control, protective, or other equipment on the customer's system required by the Company's technical interconnection requirements based on IEEE 1547, the NEC, accredited testing laboratories such as Underwriters Laboratories, and the manufacturer's suggested practices for safe, efficient, and reliable operation of the generating facility in parallel with Company's electric system. Customer shall bear full responsibility for the installation, maintenance, and safe operation of the generating facility. Upon reasonable request from the Company, customer shall demonstrate generating facility compliance.
3. The generating facility shall comply with, and the customer shall represent and warrant its compliance with: (a) any applicable safety and power quality standards established by the Institute of Electrical and Electronics Engineers (IEEE) and accredited testing laboratories such as Underwriters Laboratories (UL); (b) the National Electrical Code (NEC) as may be revised from time to time; (c) Company's rules, regulations, and Company's Terms and Conditions of Service as contained in Company's Retail Electric Tariff as may be revised from time to time with the approval of the Kentucky Public Service Commission (Commission); (d) the rules and regulations of the Commission, as such rules and regulations may be revised from time to time by the Commission; and (e) all other applicable local, state, and federal codes and laws, as the same may be in effect from time to time. Where required by law, customer shall pass an electrical inspection of the generating facility by a local authority having jurisdiction over the installation.
4. Any changes or additions to the Company's system required to accommodate the generating facility shall be considered excess facilities. Customer shall agree to pay Company for actual costs incurred for all such excess facilities prior to construction.
5. Customer shall operate the generating facility 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. At all times when the generating facility is being operated in parallel with 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. Customer shall agree that the interconnection and operation of the generating facility is secondary to, and shall not interfere with, Company's ability to meet its primary responsibility of furnishing reasonably adequate service to its customers.

(Cont'd on Sheet No. 28-19)

DATE OF ISSUE: April 9, 2021

DATE EFFECTIVE: Service Rendered On And After January 14, 2021

ISSUED BY: /s/ Brian K. West

TITLE: Vice President, Regulatory & Finance

By Authority of Orders of the Public Service Commission

In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

TERMS AND CONDITIONS FOR LEVEL 2, continued

6. Customer shall be responsible for protecting, at Customer's sole cost and expense, the 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 the Company shall be responsible for repair of damage caused to the generating facility resulting solely from the negligence or willful misconduct on the part of the Company.
7. After initial installation, Company shall have the right to inspect and/or witness commissioning tests, as specified in the Level 1 or Level 2 Application and approval process. 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 generating facility comply with the requirements of this tariff.
8. For Level 2 generating facilities, where required by the Company, an eligible customer shall furnish and install on customer's side of the point of common coupling a safety disconnect switch which shall be capable of fully disconnecting the customer's energy generating equipment from Company's electric service under the full rated conditions of the customer's generating facility. 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, the customer shall be responsible for ensuring the location of the EDS is properly and legibly identified for so long as the generating facility is operational. The disconnect switch shall be accessible to Company personnel at all times. The Company may waive the requirement for an EDS for a generating facility at its sole discretion, and on a case-by-case basis, upon review of the generating facility operating parameters and if permitted under the Company's safety and operating protocols.

The Company shall establish a training protocol for line workers on the location and use of the EDS, and shall require that the EDS be used when appropriate, and that the switch be turned back on once the disconnection is no longer necessary.

9. 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 generating facility if Company believes that: (a) continued interconnection and parallel operation of the generating facility 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 generating facility is not in compliance with the requirements of this tariff, and the noncompliance adversely affects the safety, reliability or power quality of Company's electric system; or (c) the generating facility 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, when the Company is unable to immediately isolate or cause the customer to isolate only the generating facility, the Company may isolate the customer's entire facility.

(Cont'd on Sheet No. 28-20)

DATE OF ISSUE: April 9, 2021

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TITLE: Vice President, Regulatory & Finance

By Authority of Orders of the Public Service Commission

In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

TERMS AND CONDITIONS FOR LEVEL 2, continued

- 10. Customer shall agree that, without the prior written permission from Company, no changes shall be made to the generating facility as initially approved. Increases in generating facility 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 not resulting in increases in generating facility capacity are allowed without approval.
- 11. To the extent permitted by law, the customer shall protect, indemnify, and hold harmless the 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 of persons or damage to property caused by the customer or the customer's employees, agents, representatives and contractors in tampering with, repairing, maintaining or operating the customer's generating facility or any related equipment or any facilities owned by the Company except where such injury, death or damage was caused or contributed to by the fault or negligence of the Company or its employees, agents, representatives, or contractors.

The liability of the Company to the customer for injury to person and property shall be governed by the tariff(s) for the class of service under which the customer is taking service.
- 12. The customer shall maintain general liability insurance coverage (through a standard homeowner's, commercial, or other policy). Customer shall provide Company with proof of such insurance at the time that application is made for net metering.
- 13. 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.
- 14. 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 the customer in writing and list what must be done to place the facility in compliance.
- 15. The customer shall retain any and all Renewable Energy Credits (RECs) that may be generated by their generating facility.

(Cont'd on Sheet No. 28-21)

DATE OF ISSUE: April 9, 2021
DATE EFFECTIVE: Service Rendered On And After January 14, 2021
ISSUED BY: /s/ Brian K. West
TITLE: Vice President, Regulatory & Finance
By Authority of Orders of the Public Service Commission
In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

TARIFF N.M.S. II
(Net Metering Service II)

N

TERMS AND CONDITIONS FOR LEVEL 2, continued

Effective Term and Termination Rights

This Agreement becomes effective when executed by both parties and shall continue in effect until terminated. This Agreement may be terminated as follows: (a) Customer may terminate this Agreement at any time by giving the Company at least sixty (60) days' written notice; (b) Company may terminate upon failure by the Customer to continue ongoing operation of the generating facility; (c) either party may terminate by giving the other party at least thirty (30) days prior written notice that the other party is in default of any of the terms and conditions of the Agreement or the Rules or any rate schedule, tariff, regulation, contract, or policy of the Company, so long as the notice specifies the basis for termination and there is opportunity to cure the default; (d) the Company may terminate by giving the Customer at least thirty (30) days notice in the event that there is a material change in an applicable law, regulation or statute affecting this Agreement or which renders the system out of compliance with the new law or statute.

IN WITNESS WHEREOF, the Parties have executed this Agreement, effective as of the date first above written.

Customer Signature: _____ **Date:** _____

Printed Name: _____ **Title:** _____

Company Signature: _____ **Date:** _____

Printed Name: _____ **Title:** _____

(Cont'd on Sheet No. 28-22)

DATE OF ISSUE: April 9, 2021
DATE EFFECTIVE: Service Rendered On And After January 14, 2021
ISSUED BY: /s/ Brian K. West
TITLE: Vice President, Regulatory & Finance
By Authority of Orders of the Public Service Commission
In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

**TARIFF N.M.S. II
(Net Metering Service II)**

N

**Interconnection Agreement – Level 2
Exhibit A**

- Exhibit A will contain additional detailed information about the Generating Facility such as a single line diagram, relay settings, and a description of operation.
- When construction of the Company’s facilities is required, Exhibit A will also contain a description and associated cost.
- Exhibit A will also specify requirements for a Company inspection and witness test and when limited operation for testing or full operation may begin.

DATE OF ISSUE: April 9, 2021

DATE EFFECTIVE: Service Rendered On And After January 14, 2021

ISSUED BY: /s/ Brian K. West

TITLE: Vice President, Regulatory & Finance

By Authority of Orders of the Public Service Commission

In Case No. 2020-00174 dated January 13, 2021; January 15, 2021; February 22, 2021, and March 17, 2021

Exhibit 2 – SB100 HFA1

HOUSE OF REPRESENTATIVES

KENTUCKY GENERAL ASSEMBLY AMENDMENT FORM
2019 REGULAR SESSION
Unofficial Document

Amend printed copy of **SB 100/GA**

Beginning on page 1, line 3, and continuing through page 5, line 4, delete Sections 1 and 2 in their entireties and insert in lieu thereof the following:

"➔Section 1. KRS 278.465 is amended to read as follows:

As used in KRS 278.465 to 278.468:

- (1) "Eligible customer-generator" means a customer of a retail electric supplier who owns and operates an electric generating facility that is located on the customer's premises, for the primary purpose of supplying all or part of the customer's own electricity requirements.
- (2) "Eligible electric generating facility" means an electric generating facility that:
 - (a) Is connected in parallel with the electric distribution system;
 - (b) Generates electricity using:
 - 1. Solar energy;
 - 2. Wind energy;
 - 3. Biomass or biogas energy; or
 - 4. Hydro energy; and
 - (c) Has a rated capacity of not greater than forty-five (45)~~thirty (30)~~ kilowatts.

An eligible electric generating facility may incorporate onsite energy storage and may include leased systems, in which case the lessor shall be a non-utility third party.
- (3) "Kilowatt hour" means a measure of electricity defined as a unit of work of energy,

Amendment No. _____

Rep. Rep. Jim DuPlessis

Committee Amendment _____

Signed: _____

Floor Amendment _____

LRC Drafter: Kasacavage, Stefan

Adopted: _____

Date: _____

Rejected: _____

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measured as one (1) kilowatt of power expended for one (1) hour.

(4) "Net metering" means~~[measuring]~~ the difference between the:

(a) Dollar value of all~~[electricity supplied by the electric grid and the]~~ electricity generated by an eligible customer-generator that is fed back to the electric grid over a billing period **and priced as prescribed in Section 2 of this Act; and**

(b) Dollar value of all electricity consumed by the eligible customer-generator over the same billing period and priced using the applicable tariff of the retail electric supplier.

➔Section 2. KRS 278.466 is amended to read as follows:

- (1) Each retail electric supplier shall make net metering available to any eligible customer-generator that the supplier currently serves or solicits for service. If the cumulative generating capacity of net metering systems reaches one percent (1%) of a supplier's single hour peak load during **a calendar**~~[the previous]~~ year, the **supplier shall have no further obligation**~~[of the supplier]~~ to offer net metering to **any**~~[a]~~ new customer-generator **at any subsequent time**~~[may be limited by the commission]~~.
- (2) Each retail electric supplier serving a customer with eligible electric generating facilities shall use a standard kilowatt-hour meter capable of registering the flow of electricity in two (2) directions. Any additional meter, meters, or distribution upgrades needed to monitor the flow in each direction shall be installed at the customer-generator's expense. If additional meters are installed, the net metering calculation shall yield the same result as when a single meter is used.
- (3) **A retail electric supplier serving an eligible customer-generator shall compensate that customer for all electricity produced by the customer's eligible electric generating facility that flows to the retail electric supplier, as measured by the standard kilowatt-hour metering prescribed in subsection (2) of this section. The rate to be used for such**

compensation shall be set by the commission using the ratemaking processes under this chapter during a proceeding initiated by a retail electric supplier or generation and transmission cooperative on behalf of one (1) or more retail electric suppliers. However, a distribution cooperative's net metering rates shall only be modified upon petition to the commission by its respective generation and transmission cooperative. The proceeding shall be initiated by the commission no later than one (1) year from the effective date of this Act. Nothing in this section shall prevent the establishment of an administrative case by the commission to set the net metering compensation rate that names all retail electric suppliers as parties thereto. Additionally, nothing shall prevent the commission from consolidating all of the retail electric initiated cases into one (1) case. If the commission does not initiate such a case or if individual retail electric suppliers do not initiate such a case within the one (1) year period, then the current net metering provisions shall remain in place for customers of those retail electric suppliers for five (5) years from the effective date of this Act. Thereafter, the retail electric supplier may only change its net metering rates as part of a general application to change its rates. Further, rates established by the commission pursuant to this section shall remain in effect for five (5) years after the commission sets the rates and shall only be changed by the commission as part of a general rate case, unless resource price volatility exceeds ten percent (10%) in a year. The Kentucky Solar Industry Association or an equivalent organization of retail solar installers shall be permitted to intervene in any ratemaking process initiated under this section.

- (4) (a) For the period established under paragraph (b) of this subsection, compensation provided to an eligible customer-generator shall be in the form of a dollar-denominated bill credit. If an eligible customer-generator's bill credit exceeds the amount to be billed to the customer in a billing period, the amount of the credit in

Unofficial Document

excess of the customer's bill shall carry forward to the customer's next bill. Excess bill credits shall not be transferable between customers or premises. If an eligible customer-generator closes his or her account, no cash refund for accumulated credits shall be paid.

(b) In establishing the successor net energy metering tariff, and in approving any future modifications, the commission shall determine a netting interval for accomplishing the net electrical energy measurement that is just and reasonable in light of the costs and benefits of the net energy metering program. The commission shall not adopt a netting interval that exceeds the retail electric supplier's monthly billing period. In determining the appropriate billing interval, the commission shall consider:

1. Current metering capability and the cost of upgrading hardware and billing systems to accomplish the net electrical energy measurement;
2. The availability of historic usage data to help prospective customer-generators project the bill savings achievable by participating in the net energy metering program; and
3. The interaction of the netting interval with time-variant rate schedules available to customer-generators and whether different netting intervals are justified for customer-generators taking service on a time-variant rate schedule.

(5) Using the ratemaking process provided by this chapter, each retail electric supplier shall be entitled to implement rates to recover from its eligible customer-generators all costs necessary to serve its eligible customer-generators, including but not limited to fixed and demand-based costs. In addition to the costs to the retail electric supplier, the commission shall consider quantifiable benefits provided to the retail electric supplier

and other customers within the same rate class provided by the generation customer-suppliers, which shall only include energy generation capacity, avoided transmission and distribution losses, transmission and distribution capacity benefits, fuel price uncertainty and hedging, market price mitigation, and utility integration and interconnections costs. Eligible customer-generators shall belong to the same utility rate class they would otherwise belong to if they were not an eligible customer-generator.

(6) (a) For an eligible electric generating facility in service prior to the effective date of the initial net metering order by the commission in accordance with subsection (3) of this section, the net metering tariff provisions in place when the eligible customer-generator began taking net metering service, including the one-to-one (1:1) kilowatt-hour denominated energy credit provided for electricity fed into the grid, shall remain in effect at those premises for a twenty-five (25) year period, regardless of whether the premises are sold or conveyed during that twenty-five (25) year period. For any eligible customer-generator to whom this paragraph applies, each net metering contract or tariff under which the customer takes service shall be identical, with respect to energy rates, rate structure, and monthly charges, to the contract or tariff to which the same customer would be assigned if the customer were not an eligible customer-generator.

(b) Eligible customer-generators with eligible electric generating facilities taking service after implementation of the successor net energy metering tariff but prior to December 31, 2024, shall be eligible for the energy rates, rate structure, and monthly charges described in paragraph (a) of this subsection through December 31, 2034 without modification~~[The amount of electricity billed to the eligible customer-generator using net metering shall be calculated by taking the difference between the electricity supplied by the retail electric supplier to the customer and the~~

Unofficial Document

~~electricity generated and fed back by the customer. If time-of-day or time-of-use metering is used, the electricity fed back to the electric grid by the eligible customer-generator shall be net-metered and accounted for at the specific time it is fed back to the electric grid in accordance with the time-of-day or time-of-use billing agreement currently in place.~~

- ~~(4) Each net metering contract or tariff shall be identical, with respect to energy rates, rate structure, and monthly charges, to the contract or tariff to which the same customer would be assigned if the customer were not an eligible customer-generator.~~
- ~~(5) The following rules shall apply to the billing of net electricity:~~
- ~~(a) The net electricity produced or consumed during a billing period shall be read, recorded, and measured in accordance with metering practices prescribed by the commission;~~
 - ~~(b) If the electricity supplied by the retail electric supplier exceeds the electricity generated and fed back to the supplier during the billing period, the customer-generator shall be billed for the net electricity supplied in accordance with subsections (3) and (4) of this section;~~
 - ~~(c) If the electricity fed back to the retail electric supplier by the customer-generator exceeds the electricity supplied by the supplier during a billing period, the customer-generator shall be credited for the excess kilowatt hours in accordance with subsections (3) and (4) of this section. This electricity credit shall appear on the customer-generator's next bill. Credits shall carry forward for the life of the customer-generator's account;~~
 - ~~(d) If a customer-generator closes his account, no cash refund for residual generation-related credits shall be paid; and~~
 - ~~(e) Excess electricity credits are not transferable between customers or locations].~~

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- ~~(7)(6)~~ Electric generating systems and interconnecting equipment used by eligible customer-generators shall meet all applicable safety and power quality standards established by the National Electrical Code (NEC), Institute of Electrical and Electronics Engineers (IEEE), and accredited testing laboratories such as Underwriters Laboratories.
- ~~(8)(7)~~ An eligible customer-generator installation is transferable to other persons *at the same premises*~~[or service locations]~~ upon notification to the retail electric supplier and verification that the installation is in compliance with the applicable safety and power quality standards in KRS 278.467 and in subsection ~~(7)(6)~~ of this section.
- ~~(9)(8)~~ Any upgrade of the interconnection between the retail electric supplier and the customer-generator that is required by commission-approved tariffs for the purpose of allowing net metering shall be made at the expense of the customer-generator."



Exhibit 3 – SB100


Kentucky

General Assembly

Senate Bill 100

Actions ▼ | Amendments ▼

Last Action	03/26/19: signed by Governor (KY Acts ch. 101)
Title	AN ACT relating to net metering.
Bill Documents	Current/Final  Introduced 
Bill Request Number	1818
Sponsors	B. Smith, M. Castlen

Summary of Original Version	<p>Amend KRS 278.465 to increase the maximum capacity for an eligible electric generating facility to 45 kilowatts and to redefine "net metering"; amend KRS 278.466 to require the Public Service Commission to set the compensation rate for eligible customer-generators according to the ratemaking process in KRS Chapter 278; specify that the ratemaking process to set the amount of compensation for electricity produced by eligible customer-generators be initiated by a retail electric supplier or generation and transmission cooperative on behalf of one or more retail electric suppliers; prohibit eligible customer-generators who close their net metering accounts from receiving any cash refund for accumulated excess generation credits; require the net metering tariff provisions for eligible customer-generators in place when they started taking net metering service to remain in effect for 25-years for eligible generating facilities, including the one-to-one kilowatt-hour denominated credit provided for electricity fed into the grid; specify that eligible customer-generators shall be subject to all changes in energy rates, rate structures, and monthly charges as nonparticipating customers during that 25 year period; specify that eligible customer-generator installations are transferable to other persons at the same premises; amend KRS 278.467 to conform; EFFECTIVE January 1, 2020.</p>
Index Headings of Original Version	<p>Effective Dates, Delayed - Net metering, compensation ratemaking changes, effective January 1, 2020 Energy - Maintenance of current net metering rates, 25 years from initial compensation rate change Energy - Net metering compensation rate, Public Service Commission, ratemaking process Environment and Conservation - Net metering compensation rate, Public Service Commission, ratemaking process Public Utilities - Maintenance of current net metering rates, 25 years from initial compensation rate change Public Utilities - Net metering compensation rate, Public Service Commission, ratemaking process Administrative Regulations and Proceedings - Public Service Commission, net metering ratemaking process, initiated by utilities</p>
Jump to Proposed Amendments	<p>Senate Floor Amendment 1 ↓ House Floor Amendment 1 ↓ House Floor Amendment 2 ↓ House Floor Amendment 3 ↓ House Floor Amendment 4 ↓ House Floor Amendment 5 ↓ House Floor Amendment 6 ↓</p>
Votes	<p>Vote History </p>

Actions


Top ↑ | Amendments ↓


02/11/19	introduced in Senate taken from Committee on Committees (S) 1st reading returned to Committee on Committees (S)
02/12/19	taken from Committee on Committees (S) 2nd reading returned to Committee on Committees (S) to Natural Resources & Energy (S)
02/13/19	reported favorably, to Rules posted for passage in the Regular Orders of the Day for Wednesday, February 13, 2019 3rd reading, passed 23-12 floor amendment (1) filed received in House taken from Committee on Committees (H) 1st reading to Natural Resources & Energy (H) posting waived posted in committee
02/14/19	reported favorably, 2nd reading, to Rules posted for passage in the Regular Orders of the Day for Friday, February 15, 2019 floor amendments (1), (2), (3), (4), (5) and (6) filed
02/15/19	3rd reading floor amendment (4) defeated passed 71-24 with floor amendment (1) received in Senate
02/21/19	posted for passage for concurrence in House floor amendment (1) Senate refused to concur in House floor amendment (1)
02/22/19	received in House to Rules (H)


03/01/19	posted for passage for receding from House floor amendment (1)
03/14/19	House receded from floor amendment (1) Bill passed 55-36 received in Senate enrolled, signed by President of the Senate enrolled, signed by Speaker of the House delivered to Governor
03/26/19	signed by Governor (KY Acts ch. 101)

Proposed Amendments


Top ↑ | Actions ↑


Amendment	Senate Floor Amendment 1 
Sponsor	R. Thomas
Summary	Remove references to dollar values relating to compensation to eligible customer-generators; require the Public Service Commission to consider costs and benefits to other customers and retail electric suppliers resulting from excess generation from eligible customer-generators; remove changes that would have taken away the Public Service Commission's discretion to allow for net metering after the cumulative generating capacity of net metering systems reaches one percent of a single supplier's single hour peak load; allow retail solar installer organizations and customer generator organizations to intervene in rate cases to set the compensation rate for excess generation from eligible customer-generators; remove language that would allow retail electric suppliers to implement rates to recover from eligible customer-generators for fixed and demand-based costs that may be different than for similarly situated customer classes.
Index Headings	Energy - Net metering, compensation rates for excess generation, costs and benefits, consideration of Environment and Conservation - Net metering, compensation rates for excess generation, costs and benefits, consideration of Public Utilities - Net metering, compensation rates for excess generation, costs and benefits, consideration of Public Utilities - Rate cases, net metering compensation rates, right to intervene Administrative Regulations and Proceedings - Generator/installer organizations, net metering compensation rates, right to intervene in rate cases


Amendment	House Floor Amendment 1 
Sponsor	J. DuPlessis
Summary	Remove and replace Sections 1 and 2 of the Act to make the following changes: allow eligible electric generating facilities to include energy storage and leased systems; only allow a distribution cooperative's net metering rates to be modified upon petition to the Public Service Commission by its respective generation and transmission cooperative; require the proceeding to be initiated within one year of the effective date of the Act; allow the Public Service Commission to set the net metering compensation rate by one administrative case; require net metering rates set by the Public Service Commission to remain in effect for five years, unless resource price volatility exceeds 10% in a year; allow the Kentucky Solar Industry Association or equivalent retail solar installer organization to intervene in a ratemaking case setting the net metering compensation rate; require the Public Service Commission to determine a just and reasonable netting interval when establishing a successor net metering tariff; require the Public Service Commission to consider quantifiable benefits when determining the net metering compensation rate; allow eligible electric generating facilities who begin taking service after the successor net metering tariff but prior to December 31, 2024, to be eligible for the grandfathered net metering rate until December 31, 2034.
Index Headings	Administrative Regulations and Proceedings - Public Service Commission, net metering compensation rate, consideration of benefits Administrative Regulations and Proceedings - Public Service Commission, net metering compensation rate, procedure for determination Energy - Net metering, eligible electric generating facility, include energy storage and leased systems Environment and Conservation - Net metering, eligible electric generating facility, include energy storage and leased systems Public Utilities - Net metering compensation rate, procedure for determination, Public Service Commission

Amendment	House Floor Amendment 2 
Sponsor	A. Hatton
Summary	Require consideration of benefits of customer generators to the retail electric supplier and customers of the rate class when retail electric supplier seeks recovery through customer rates; prescribe certain benefits to be examined by the Public Service Commission in cost benefit analysis when a retail electric supplier seeks rate recovery.


Index Headings	Energy - Net metering, benefits along with costs, consideration during rate recovery Fuel - Net metering, benefits along with costs, consideration during rate recovery Public Utilities - Net metering, benefits along with costs, consideration during rate recovery
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Amendment	House Floor Amendment 3 
Sponsor	C. Stevenson
Summary	Delete subsection 5 of Section 2; renumber subsections in Section 2.
Index Headings	Administrative Regulations and Proceedings - Public Service Commission, netmetering, rate making process Energy - Net metering, fixed and demand-based cost, recovery of Environment and Conservation - Net metering, fixed and demand-based cost, recovery of Public Utilities - Net metering, fixed and demand-based cost, recovery of

Amendment	House Floor Amendment 4 
Sponsor	C. Booker
Summary	Restore kilowatt credits set by the commission for excess electricity rather than dollar denominated credits; remove all dollar and monetized denomination of credits.
Index Headings	Energy - Net metering, restore kilowatt energy credits, remove dollar and monetized denomination of credits Fuel - Net metering, restore kilowatt energy credits, remove dollar and monetized denomination of credits Public Utilities - Net metering, restore kilowatt energy credits, remove dollar and monetized denomination of credits

Amendment	House Floor Amendment 5 
Sponsor	M. Cantrell
Summary	Remove and replace Section 2 of the Act to make the following changes: revert to existing language regarding the one percent cap on cumulative generating capacity of net metering systems; remove references to dollar-denominated compensation for excess generation from eligible electric generating facilities; provide for a bill credit expressed in kilowatt hours.

Index Headings	<p>Energy - Net metering compensation rate, kilowatt-hour denominated energy credit</p> <p>Environment and Conservation - Net metering compensation rate, kilowatt-hour denominated energy credit</p> <p>Public Utilities - Net metering compensation rate, kilowatt-hour denominated energy credit</p> <p>Administrative Regulations and Proceedings - Public service commission, net metering, compensaion rate, rate making process</p>
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Amendment	House Floor Amendment 6 
Sponsor	J. Raymond
Summary	Remove the one percent hard cap from participating eligible customer generators doing net metering.
Index Headings	<p>Energy - Eligible customer generators, restore soft one percent cap</p> <p>Environment and Conservation - Eligible customer generators, solar power, restore soft one percent cap</p> <p>Public Utilities - Eligible customer generators, restore soft one percent cap</p>

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Exhibit 4 – SB100 HFA2

HOUSE OF REPRESENTATIVES

KENTUCKY GENERAL ASSEMBLY AMENDMENT FORM
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Amend printed copy of **SB 100/GA**

On page 3, line 4, by deleting "without regard for the rate structure for customers who are not eligible customer-generators" before the ";"; and

On page 3, line 4, after the ";" by inserting "The commission shall also consider benefits along with costs. In doing the cost-benefit analysis to determine the rates for the retail electric suppliers, in addition to the costs to the retail electric supplier, the commission shall consider quantifiable benefits provided to the retail electric supplier and to other customers within the same rate class by the eligible customer-generators. The benefits include energy, generating capacity, avoided transmission and distribution losses, transmission and distribution capacity benefits, reducing fuel price uncertainties, mitigating market prices, and utility integration and interconnection costs. Eligible customer-generators shall belong to the same utility rate class that they would otherwise belong to if they were not an eligible customer-generator".

Amendment No. _____

Rep. Rep. Angie Hatton _____

Committee Amendment _____

Signed: _____

Floor Amendment _____

LRC Drafter: Monsanto, Tanya _____

Adopted: _____

Date: _____

Rejected: _____

Doc. ID: XXXX _____

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