COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

ELECTRONIC APPLICATION OF	**)**	
DUKE ENERGY KENTUCKY, INC.	**)**	**Case No. 2023-00413**
FOR AN ADJUSTMENT TO RIDER	**)**	
NM RATES AND FOR TARIFF APPROVAL	**)**	

ATTORNEY GENERAL'S POST-HEARING MEMORANDUM BRIEF

On December 11, 2023, Duke Energy Kentucky, Inc. ("Duke") filed an application with the Kentucky Public Service Commission ("Commission") which requested authority to revise its current Net Metering Tariff ("NMS I"), to create a new Net Metering Tariff ("NMS II") to serve prospective customers, and to make other changes related to its net-metering offerings. The Office of the Attorney General intervened, as did the Kentucky Solar Industries Association, Inc. ("KYSEIA"), the Kentucky Solar Energy Society ("KYSES"), and Kentuckians for the Commonwealth ("KFTC"), the latter two groups doing so jointly. The Commission and the Intervenors propounded multiple rounds of data requests, to which Duke responded. KYSES and KFTC sponsored the testimony of an expert witness, Dr. Richard McCann, Ph.D. Duke sponsored rebuttal testimony offered by Mr. Bruce Sailers. Further, the parties participated in formal hearing in this matter on May 21, 2024. At the conclusion of that hearing, the Commission set a procedural schedule which allowed the parties to file Post-Hearing Memorandum Briefs articulating their position on the issues to be decided.

Net metering, in the simplest terms, is the compensation paid to customers who generate power through their rooftop solar array in excess of their needs, which is then

dispatched back to the grid and the utility. Other customers on the grid then use that power, with a portion being lost to inefficiency of the line.

Historically, compensation to customers who sold excess electricity back to the utility was at a rate equal to the price per kilowatt-hour that the utility charged residential customers for that electricity. Due to the expense of installation, few sought to install rooftop solar and the rate impacts of that pricing methodology to other retail customers were minor. Therefore, little attention was paid to this segment of the market. However, with time and advancements in the solar industry, the price of solar panels fell, and residential solar installations increased. Utilities were then forced to confront the reality that compensating customers for their excess generation at the traditional one-to-one kilowatt-hour energy credit was a losing proposition because that method overcompensated net metering customers and required the utilities to pass excess costs on to their non-net metering customers.

While some interest groups still push for continuing to compensate rooftop solar generators at a historic one-to-one kWh rate, it has become clear that such a methodology unfairly transfers excessive generation costs to the utilities' non-net metering customers. Under a system that compensates net-metering customers at a one-to-one value, net metering customers are effectively allowed to use the existing grid as a free, unlimited battery without paying the associated costs. Over forty states, including Kentucky, have enacted rules to address developing net metering issues.[1] Kentucky's net metering law, which was updated in 2019 with the enactment of Senate Bill 100, grandfathers existing customers for 25 years, allowing them to continue to receive the net metering

[1] Kentucky's net metering statues can be found in KRS 278.465 through KRS 278.467.

compensation they were receiving as of December 31, 2019. It also allows utilities to amend net metering tariffs prospectively, starting January 1, 2020. Finally, the law caps the amount of generation a utility is required to purchase from net metering customers. When cumulative net metering systems reach 1% of a utilities' single hour peak load in a calendar year, a utility is no longer required to offer the program.

Through this proceeding, in compliance with Senate Bill 100, Duke proposes to close their existing net metering service tariff to new customers and create a new tariff consistent with the statutory changes. Duke's proposed approach is the fairest and most equitable way to calculate net metering costs and should be adopted.

I. Duke's proposal appropriately considers the impacts of net-metering on all of Duke's customers, including non-participants.

When considering the net metering compensation issue, the Commission should take a holistic perspective since the compensation afforded to net metering customers for excess energy impacts every other Duke retail customer. While customers electing to install rooftop solar should have the option to do so, that choice should not lead to unfair, unjust, and unreasonable rates for other retail customers in violation of the Commission's statutory mandate.

If a retail customer chooses to install rooftop solar on their home, they immediately receive the benefit of lower electricity bills regardless of whether they are paid for any excess energy they generate. And when the sun does not shine, their electricity consumption is not interrupted, as they continue to receive electricity from the electric utility. Further, many net metering customers view their choice as having a positive impact on the environment. These reasons alone should suffice to justify the installation of solar panels for those who choose to do so.

However, as the solar industry has grown, the question of whether rooftop solar customers are receiving excessive benefits for the power they generate at the expense of other customers is becoming increasingly important.

Idaho recently overhauled its net-metering compensation rates, "recogniz[ing] that the fundamental purpose of on-site generation is to offset a customer's own usage, that on-site generation should not create cost shifting between generators and non-generators..."[2] In so doing, "the [Idaho] commission worked to accurately assign the appropriate share of fixed costs and unquantified benefits of on-site customer generation, and to provide a reasonable balance between the interests of customers with on-site generation and customers without it."[3] Indiana utilities have dramatically reduced net-metering payments.[4] West Virginia has decreased compensation for some net-metering customers.[5] North Carolina reduced compensation for net-metered energy exports and imposed additional fees to address cost shifting.[6] Even California, a leading state in solar adoption and generation, decided that the inequities of a one-to-one compensation rate were problematic. On December 15, 2022, the California Public Utilities Commission ("CPUC") issued a decision dramatically reducing the compensation rate for net-metering customers by "calibrat[ing]" payments to the value those resources provide to the grid.[7]

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[2] *Commission issues order on Idaho Power on-site and self-generation tariffs*, https://puc.idaho.gov/Fileroom/PublicFiles/Press/20240102Idaho%20Power%20ECR%20Press%20Release%201229.pdf

[3] *Id.*

[4] *The day Indiana rooftop solar died*, https://pv-magazine-usa.com/2022/11/17/the-day-indiana-rooftop-solar-died/

[5] *PSC approves settlements involving Mon Power, net-metering cases*, https://wvmetronews.com/2024/03/27/psc-approves-settlements-involving-mon-power-net-metering-cases/?utm_medium=email.

[6] *North Carolina regulators slash payments to rooftop-solar owners*, https://www.canarymedia.com/articles/solar/north-carolina-regulators-slash-payments-to-rooftop-solar-owners.

[7] See Fact Sheet *Modernizing NEM to Meet California's Reliability and Climate Goals, https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/net-energy-metering-nem/nemrevisit/final-december-2022-fact-sheet-nem.pdf.*

Thus, it seems practically universal at this point that impacts to non-participants must be a critical consideration when the Commission approves net-metering compensation rates.

II. Renewable generation, including small-scale solar arrays such as those at issue here, do not provide substantial amounts of reliable energy that customers need and demand.

It is reasonable to incentivize conservation and distributed generation that can help to offset a relatively small amount of utility generation. However, these resources do not provide the scale or type of generation needed to serve the vast majority of customers.

Intermittent resources, such as rooftop solar, are physically incapable of generating during critical times. These resources produce a relatively small amount of energy during only a portion of the day.[8] But even the homes with these solar installations rely on traditional utility generation resources during cloudy, rainy, or snowy days, all nights, and times when the solar panels are partially or fully physically incapable of producing electrons. During recent years, outages or near outages experienced during cold winter nights created resource needs that physically could not have been met by solar energy.

Contrary to the assertion of some, the traditional resources on which utilities rely are not similarly "intermittent," but instead, can be relied on for round-the-clock generation. "Intermittent resources" is a term commonly reserved for resources that are physically incapable of producing electrons at certain times based on uncontrollable

[8] The vast majority of net-metering customers do not install associated battery storage. If they did install battery storage, some usage could be shifted into evening hours. However, the vast majority do not because battery which is prohibitively expensive, of limited duration, and suffers from other drawbacks.

factors such as weather.[9] No human intervention can cause an intermittent resource to generate electrons on the spot if its weather-based conditions required for its operation are unmet. Whereas, even if an operator elects to shut down a traditional, thermal generating resource from time-to-time for repair, fuel unavailability, market conditions, or other reasons, that election is predictable and physically controllable.

Attempts to inaccurately portray intermittent resources and traditional resources as functionally equivalent invite the types of energy supply shortages and associated reliability impacts we are beginning to see nationally, and of which PJM is warning locally.[10]

III. Duke NMS II proposal results in fair, just, and reasonable rates.

In order to achieve fair, just, and reasonable rates for all customers, it stands to reason that excess rooftop solar generation should only be purchased at the lowest reasonable price. In all other instances, Kentucky utilities are required to pursue least cost resources.[11] Moreover, requiring a utility to pay more than is required for power is not only wasteful and duplicative on its face,[12] but clearly runs afoul of the Commonwealth's least-cost regulatory mandate.

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[9] See *Intermittent Renewable Energy*, https://www.bpa.gov/energy-and-services/efficiency/demand-response/intermittent-renewable-energy "Because wind and solar resources aren't constantly available and predictable, they're referred to as intermittent energy resources."

[10] Interim Joint Committee on Natural Resources and Energy Hearing August 3, 2023, YouTube video at 13:25,24:50, available at https://www.youtube.com/watch?v=Bja3IDPFPMs (accessed May 22, 2024). PJM is "concerned about being in a supply crunch at the end of this decade," and "we can't simply shut down thermal resources and replace them with non-thermal resources."

[11] *See, e.g.*, 807 KAR 5:058 § 8.

[12] *See* KRS 278.020(1); *In Re: Electronic Application Of Louisville Gas And Electric Company And Kentucky Utilities Company For Approval Of A Solar Power Contract And Two Renewable Power Agreements To Satisfy Customer Requests For A Renewable Energy Source Under Green Tariff Option #3*, Case No. 2020-00016, Order (March 2, 2020).

The Attorney General urges the PSC to set rates that are fair and just for all customers, and which avoid the subsidization and cost-shifting which could occur if net-metering customers are compensated in excess of the utilities' avoided cost.

The Commission has defined "[a]voided costs" as "the incremental costs that a utility would have incurred but for services purchased from net metered customers instead of purchasing or generating the same amount of services from another source."[13] In a recent *Kentucky Power* case, the Commission articulated eight factors to consider when determining avoided costs associated with net metering: (1) energy cost, (2) ancillary services, (3) generation capacity, (4) transmission capacity, (5) distribution capacity, (6) carbon cost, (7) environmental compliance cost, and (8) job benefits.[14] The witnesses for the Companies and the Intervenors have provided thorough treatment of the application of these factors in testimony.

The Companies calculation of NMS-2 Bill Credits of $0.057132 $/kWh (residential customers) and $0.057463 kWh (non-residential customers) based on those same factors appears justified and well-supported by the evidence in the record.[15] As such, the Attorney General recommends approval of the proposal as filed.

[13] *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, Order of May 14, 2021 at 6-7.
[14] *Id.*
[15] See Direct Testimony of Bruce Sailers at 16-22.

Respectfully submitted,

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Certificate of Service and Filing

Pursuant to the Commission's Orders and in accord with all other applicable law, Counsel certifies that, on June 26, 2024, a copy of the forgoing was served via the Commission's electronic filing system.

this 26th day of June, 2024.

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Assistant Attorney General