COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION OF INTERCONNECTION AND NET METERING GUIDELINES	)))	CASE NO. 2020-00302

BRIEF OF DUKE ENERGY KENTUCKY, INC.

I. INTRODUCTION

Please accept this Brief submitted on behalf of Duke Energy Kentucky, Inc., (Duke Energy Kentucky or Company) in response to the Kentucky Public Service Commission's (Commission's) request for briefs from interested parties in order to develop a record that the Commission can draw upon as it conducts its investigation into net metering interconnection guidelines and considers Federal Energy Regulatory Commission (FERC) Order No. 2222.[1]

II. BACKGROUND

On September 24, 2020, the Commission initiated this proceeding to investigate and potentially modify and update net metering interconnection guidelines, which were last addressed in Case No. 2008-00169.[2] Also in that Order, all Kentucky jurisdictional electric utilities were made parties to this proceeding. To assist the Commission in its investigation, the Commission has further requested the parties file a written brief

[1] *In the Matter of Electronic Investigation of Interconnection and Net Metering Guidelines*, Case No. 2020-00302, Order (February 16, 2021); *In the Matter of Electronic Investigation of Interconnection and Net Metering Guidelines*, Case No. 2020-00302, Order (March 4, 2021).
[2] *Development of Guidelines for Interconnection and Net Metering for Certain Generators with Capacity Up to Thirty Kilowatts*, Administrative Case No. 2008-00169 (January 8, 2009).

discussing current and reasonably anticipated issues and concerns identified by each party regarding net metering interconnection guidelines, and, separately, current and reasonably anticipated concerns regarding Federal Regulatory Energy Commission (FERC) Order No. 2222.[3]

III. DISCUSSION OF NET METERING AND INTERCONNECTION GUIDELINES

Distinct, Separate Guidelines Should Be Created For
Net Metering And Interconnection

The existing interconnection guidelines are focused primarily on net metering customers. However, it is possible that interconnections for the purpose of participation in the wholesale market will increase over time. Because the energy profiles of wholesale market participants tend to be very different from the energy profiles of net metering customers, Duke Energy Kentucky believes that it would be best to have two distinct sets of guidelines.

Duke Energy Kentucky recommends that one set of guidelines govern interconnections (regardless of tariff, including for non-renewable generating facilities) and another set of guidelines govern net metering. Thus, for example, the "AVAILABILITY," "METERING," and "BILLING" sections of the existing guidelines would become a part of the second set (net metering guidelines) and would not appear in the interconnection guidelines. The same would be true of Section 1 under "TERMS AND CONDITIONS FOR INTERCONNECTION" which speaks to net metering services.[4] Likewise, verbiage related to net metering would be removed from the remainder of the

[3] FERC Order No. 2222, Final Rulemaking, Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators, 172 F.E.R.C. 61,247 (September 17, 2020) (to be codified at 18 CFR part 35) (FERC Order No. 2222).
[4] *Development of Guidelines for Interconnection and Net Metering for Certain Generators with Capacity Up to Thirty Kilowatts*, Administrative Case No. 2008-00169, Appx. A., p. 6 (January 8, 2009).

interconnection guidelines and the Interconnection Agreements. Among other things, the separate interconnection guidelines should contain provisions to safeguard against the possibility of double-counting resources (*e.g.*, an entity receiving both retail and wholesale credit for the same generation pushed back to the distribution or transmission system). Also, interconnection agreements should be revised to remove existing language regarding net metering, so that they can be used for the interconnection of wholesale market participants also.

If, after interconnecting, an entity subsequently wishes to switch from net metering to participation in the wholesale market or vice-versa (assuming it is otherwise eligible), then it would need to update the utility managing the distribution system and complete whatever supplementary studies the utility requires, if any, to ensure that the change would not impact the safety and reliability of the distribution system.

Cost Allocation Should Be Provided For If Updates To The Interconnection Guidelines Require Improvements To Utility Billing Or Distribution Dispatch Systems.

If this investigation results in changes to the guidelines that require utilities to make improvements to their billing or distribution dispatch systems, the Commission should also authorize cost recovery from retail customers for such changes.

Additional Updates Should Be Made To The Interconnection Guidelines And Net Metering Guidelines After Separation.

First, the current guidelines cap net metering customers at a rated capacity of 30 kilowatts,[5] which should be updated to 45 kilowatts pursuant to the current KRS 278.465. In addition, KRS 278.465 through 278.468 has been revised since the last revision of the

[5] Id., Appx. A, p. 1.

guidelines. For example, the definition of net metering has been revised. The guidelines should be revised to incorporate updated items as appropriate from KRS.

Second, the criteria for a Level 1 Application in the interconnection guidelines should be modified to require that the generating facility in question has an AC capacity of 45 kW or less. Accordingly, a Level 2 Application should require an AC capacity of more than 45 kW. These same conditions should be added to the instructions underneath the titles of each interconnection agreement.

Third, Duke Energy Kentucky believes it would be appropriate to add a $50 fee for Level 1 Applications and to delete the current language stating that no fees shall be charged.[6] This minimal amount would be fair to cover the costs of review and processing of a Level 1 Application.

IV. DISCUSSION OF FERC ORDER NO. 2222.

Under FERC Order No. 2222, individual distributed energy resources (DERs) will be permitted to aggregate together to meet size and performance requirements for participating in wholesale markets.[7] FERC will have exclusive jurisdiction over the criteria for participating in wholesale markets. However, retail regulators, such as the Commission, will remain responsible for the standards governing the interconnection of individual DERs for the purpose of participating in wholesale markets through a DER aggregation.[8] As FERC explained:

> [W]e decline to exercise jurisdiction over the interconnection of an individual distributed energy resource seeking to participate in RTO/ISO markets exclusively as part of an aggregation. ***We expect that the state and local interconnection processes for distributed energy resources***

[6] Id., Appx. A, Pg. 6.
[7] *See* FERC Order No. 2222, ¶ 5.
[8] *See* Id., ¶ 294.

> ***will provide the appropriate platform to address and study potential distribution system impacts and provide the necessary information to inform distribution utility review during distributed energy resource aggregation registration.*** However, to the extent that some existing state and local interconnection processes do not already capture such information, ***this final rule in no way prevents state and local regulators from amending their interconnection processes to address potential distribution system impacts that the participation of distributed energy resources through distributed energy resource aggregations may cause***. In addition, coordination between RTOs/ISOs, distributed energy resource aggregators, relevant electric retail regulatory authorities, and distribution utilities during the registration and distribution utility review processes should provide RTOs/ISOs with the information they need to study the impact of distributed energy resource aggregations on the transmission system.[9]

This will likely not only require the Commission to review and approve updates to electric distribution company (EDC) tariffs, but also potentially to implement changes to existing state standards and regulations.

PJM Interconnection, L.L.C. ("PJM") has recently received an extension of time to February 1, 2022 to submit their Order No. 2222 compliance filing.[10] A primary driver of PJM's request for additional time was the significant diversity of interests of EDCs and relevant electric retail regulatory authorities across fourteen states, as well as other stakeholders, and "the formidable complexity associated with identifying, reaching consensus on, and effectuating the various components" of coordination with these interested parties necessary to implement Order No. 2222.[11] As EDCs and retail regulators such as the Commission work together to integrate such wholesale-participating DERs into

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[9] Id., ¶ 294 (emphasis added).

[10] *Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators,* 175 FERC ¶ 61,013 (2021).

[11] *Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators,* Motion of PJM Interconnection, L.L.C. for Extension of Time to Submit Compliance Filing, FERC Docket No. RM18-9-000 at 2 (filed Feb. 26, 2021).

the distribution grid, it is crucial that this be accomplished in a manner that does not compromise the existing reliability, safety, and security of the distribution grid, utility workers, and customers.

First, the interconnection guidelines discussed earlier in this Brief should be modified to account for the additional review and study that DERs will require under Order No. 2222 to determine aggregation eligibility. Such review of DER aggregator registration requests with PJM will include determinations that a DER "(1) is capable of participating in an aggregation, *e.g.*, the distributed energy resource is not already participating in a retail distributed energy resource program in which the relevant electric retail regulatory authority conditioned the resource's participation on not participating in RTO/ISO markets; and (2) does not pose significant risks to the reliable and safe operation of the distribution system."[12] This PJM registration review will be on a separate timeline after the interconnection process and must be completed within 60 days for an initial review and additional time to resolve any disputed determinations.

Second, the Commission should support EDCs in protecting the security of the distribution grid and protecting customer privacy. Among other things, access to EDC customer and distribution system planning and operations data should be strictly limited and operational system data should be protected. Insofar as EDCs may incur costs to develop and implement additional cybersecurity standards and protections to comply with FERC Order No. 2222, the Commission should provide for the recovery of such costs.

Third, distribution system upgrades may be necessary to avoid overloads or violations on distribution equipment stemming from the participation of DER aggregations

[12] FERC Order No. 2222, ¶ 296.

in the wholesale market. Larger aggregations and aggregations of a large quantity of smaller resources, especially, may create the potential for operational issues, such as the injection of energy through the distribution system onto the transmission system. If EDCs are required to make such upgrades to physical assets or software, they should be able to recover the costs.

Fourth, the Commission should be aware that implementing the necessary metering and telemetry requirements for DERs under Order No. 2222 could impact established retail programs. In the future, for example, a single-family home in Kentucky might have multiple DERs that participate in different markets in different ways. A rooftop solar installation might be used to participate in a DER aggregation under Order No. 2222, while at the same time the homeowner's electric vehicle might participate in a retail demand response program or be part of a separate DER aggregation. The homeowner may also have an energy efficiency resource that the EDC uses in its FRR plan for capacity but is not in the energy market at all. All such items would have their own measurement and performance reviews, pursuant to federal or state tariffs and regulations and measuring each accurately might require coordination of load impacts, increased analysis, separate metering and/or metering at different interval frequency levels. To avoid waste and inefficiency, as well as unduly increased costs, the Commission should endeavor to support coordination efforts among the different metering and telemetry requirements.

V. CONCLUSION

Duke Energy Kentucky appreciates the opportunity to offer this Brief regarding the Commission's investigation into the net metering interconnection guidelines and FERC

Order No. 2222. The Company supports the Commission's investigation and is confident that the Commission will fairly account for all utilities' issues and concerns.

Respectfully submitted,

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