

April 19, 2024

Chairman Stephen M. DeFrank
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
Harrisburg, PA 17120



**RE: Docket Number L-2023-3044115
Advance Notice of Proposed Rulemaking Order
Distributed Energy Resource Participation in Wholesale Markets Investigation**

Dear Chairman, Vice Chairman, and Commissioners,

Please accept these comments on behalf of ProtoGen, Inc. ProtoGen is a Pennsylvania-based energy consulting company seeking to advance the energy transition by creating alignment among energy stakeholders. We are currently involved in interconnection and net-metering processes across a multitude of states, including Pennsylvania, as well as the design and construction phases of numerous DER projects, including solar power, energy storage, and wind power systems. We have found that some applications of net-metering rules to energy storage can inadvertently limit the technology's behind-the-meter resiliency benefits, an outcome that undermines the larger goal of maximizing the grid's reliability and cost-effectiveness.

A. Introduction

One stated purpose of this rulemaking is to “ensure service.” This same objective has been the driving force motivating ProtoGen’s work across hundreds of projects that have bolstered community resiliency by strategically leveraging distributed energy resources. To advance progress on this front, we are working to shift the contours of the regulatory landscape and help catalyze a policy environment that will encourage, rather than hinder, the continued development and deployment of DERs. We recognize that the rulemaking to implement FERC Order 2222 in Pennsylvania will have lasting impacts on DER

projects across the Commonwealth, and we submit these comments to share our concerns and recommendations on the current system and potential changes that should be made.

FERC Order 2222 requires regional transmission organizations (RTOs) such as PJM to allow aggregations of DERs to participate in wholesale electricity markets. DERs were previously unable to take advantage of the wholesale markets because they did not meet the minimum thresholds for size and performance imposed by many RTOs. Allowing aggregated DERs to compete in wholesale markets will create new revenue streams for system owners and spur wider adoption of resiliency-promoting renewables.

Our primary concerns regarding the implementation of FERC Order 2222 center on Pennsylvania's interconnection and net-metering policies. Current regulations assess the eligibility and compliance of solar and battery storage systems based on their cumulative nameplate capacity, rather than focusing on their energy export capacity. This often leads to the development of smaller systems that, while compliant, are not sized optimally to maximize resiliency benefits. We propose that the regulations should instead prioritize a system's ability to export energy. This shift would better support the dual goals of facilitating market participation under FERC Order 2222 and enhancing the provision of robust backup power during grid outages, thereby improving overall grid resiliency.

B. Recommendations

1. Nameplate Capacity vs. Exporting Capacity Under Current Interconnection and Net-Metering Regulations

ProtoGen strongly supports modifications to Pennsylvania's existing interconnection rules to more effectively integrate the DER aggregator entities established by FERC Order 2222. We urge the Pennsylvania Public Utility Commission to adopt a framework that assesses export capacity rather than nameplate capacity, a strategy that has already proven effective in states including Arizona¹, Iowa², and

¹ AAC § R14-2-2623

² 199 IAC 45.7(3)

Maryland³. These jurisdictions have streamlined their interconnection processes to accommodate non-exporting systems, an approach that is in step with FERC's past decisions.

Shifting from evaluating nameplate capacity to focusing on export capacity will significantly enhance DER implementation throughout the state. Particularly for solar systems paired with battery storage, the current emphasis on nameplate capacity complicates assessments by unnecessarily combining the two systems' capacities into one artificially inflated size rating. This ignores the reality that the batteries and solar panels paired in a system very rarely, if ever, operate simultaneously at full capacity. Although utilities' concerns about adverse grid impacts are understandable, the actual energy exported to the grid at any given time is only a fraction of the total system potential, reducing the risk of detrimental effects.

FERC has itself applied a similar methodology based on export capacity rather than nameplate capacity to assess systems' regulatory compliance. In *Solar Energy Industries Association v. FERC*⁴, the D.C. Circuit upheld FERC's use of export capacity as a benchmark for evaluating compliance with interconnection regulations, as opposed to nameplate capacity. This case involved a large solar farm with a nameplate capacity of 160 MW, exceeding the 80 MW eligibility limit for qualifying facilities under PURPA. However, the inverters connecting the system to the grid were capable of exporting only 80 MW. FERC decided that although the nameplate capacity of the solar farm was 160 MW, technical limitations capped the potential impacts on the grid at 80 MW, allowing it to be granted QF status, and the court affirmed this commonsense approach. FERC stated that, "...although Broadview's [(The solar farm)] configuration allows it to more consistently deliver a higher share of the 80 MW power production capacity, that configuration does not change the fact that the Broadview facility is not actually capable of providing more than 80 MW at any one point..."⁵. This decision illustrates the

³ COMAR 20.50.09.08

⁴ *Solar Energy Indus. Ass'n v. FERC*, 59 F.4th 1287

⁵ *Broadview Solar, LLC*, 175 FERC. P61,228 (FERC. June 17, 2021)

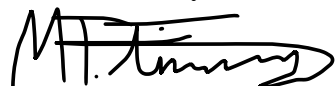
fairness and practicality of employing export capacity as the key benchmark when assessing DER systems' regulatory compliance.

The role of DERs in fortifying grid resiliency has become increasingly critical amid threats posed by aging infrastructure and more frequent and intense weather events. However, existing regulations that grossly overestimate DER system size by using nameplate capacity rather than export capacity as a metric are holding back these innovative solutions and diminishing the effectiveness of Pennsylvania's grid resiliency toolkit. The all-too-common workaround of deploying deliberately undersized systems just to achieve regulatory compliance hurts rather than helps the state's DER progress and limits the ability of communities to maintain power during emergencies.

C. Conclusion

ProtoGen's core mission is enhancing communities with transformative DER solutions, and we are excited to witness the positive impacts that FERC Order 2222 implementation will unlock across Pennsylvania. In a domain where the technological possibilities are evolving more rapidly than the regulatory environment, our hope is to see innovative policies enacted that speed the rollout of solar power and battery storage and thus substantially boost the reliability of the state's energy system. ProtoGen believes our recommendation will have a significant impact on the adoption of solar and battery storage DERs throughout the Commonwealth and respectfully requests that it be taken under serious consideration as the PUC continues the process of implementing FERC Order 2222. We appreciate the opportunity to offer our input as these important discussions continue to unfold.

Yours Sincerely,



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