BEFORE THE PENNSYLVANIA
PUBLIC UTILITY COMMISSION

Interconnection and Tariffs for Large Load Customers	**Docket No. M-2025-3054271**

COMMENTS OF INVENERGY, LLC ON TENTATIVE ORDER ISSUED BY THE PENNSYLVANIA UTILITY COMMISSION ESTABLISHING A MODEL TARIFF FOR LARGE LOAD CUSTOMERS

Invenergy Wind Development North America LLC, Invenergy Solar Development North America LLC, Invenergy Storage LLC, and Invenergy Thermal Development Holdings LLC (collectively, "Invenergy") appreciates this opportunity to comment on the Tentative Order and Model Tariff ("Model Tariff") for Customers at or Over 50 MW Individually or 100 MW in the Aggregate ("Large Load Customer") of the Pennsylvania Utility Commission ("Commission"). Invenergy hereby submits these comments in support of the Commission's efforts to create fair rules and procedures that provide transparency to the interconnection process for Large Load Customers, while maintaining the Commission's commitment to cost causation and customer rate protection.

These comments (i) support key elements of the Model Tariff, including clear interconnection study timelines, a public portal for large-load applications, and a self-construct option for customers willing to fund necessary infrastructure upgrades; (ii) address the treatment of co-located/on-site generation ("On-Site Generation") and contracted new generation ("Contracted New Generation") under the rate structure and recommend better alignment with the benefits such resources provide; (iii) request adoption of a clear netting and standby methodology that accounts for On-Site Generation and Contracted New Generation, including appropriate adjustments to capacity-reduction timelines, demand-ratchet periods, coordinated treatment of associated off-site load, and limited credits for capacity-related charges; and (iv) recommend

definitions and standards for the Model Tariff's Network Open Season ("NOS") planning studies, including transparent study methodologies, defined timelines, and objective rules to support efficient, timely system expansion and fair cost allocation.

For purposes of these comments, On-Site Generation refers to generation facilities located at or adjacent to a Large Load Customer and connected behind, or at the same point of interconnection as, the Large Load Customer's facilities, that are primarily intended to serve that customer's load. Contracted New Generation refers to new generation resources with access to the Electric Distribution Company ("EDC")'s system within reasonable geographic proximity to the Large Load Customer's site that are committed to serve that customer under a long-term power purchase agreement or similar arrangement and that are expected to support resource adequacy, reduce congestion, or defer or appropriately scale transmission and distribution upgrades.

I. INTRODUCTION

A. Invenergy, LLC

Invenergy is a Chicago-based developer, owner, and operator of large scale-power projects, including wind, solar, battery storage, and natural gas facilities and one of the largest privately held independent power generation companies in North America. In Jessup, Pennsylvania, Invenergy operates the 1,480-MW Lackawanna Energy Center – a combined-cycle natural gas plant capable of powering more than one million homes and designed to respond quickly to changing system demand.

B. Invenergy's Interest in a Well-Designed Large Load Model Tariff

Invenergy has an active pipeline of projects in Pennsylvania that will serve and depend on Large Load Customers; its investments hinge on transparent, predictable, and nondiscriminatory interconnection and service arrangements and thus, Invenergy has a direct and significant interest

in ensuring that the Commission's Model Tariff appropriately balances the needs of Large Load Customers with grid reliability and cost responsibility. EDCs in Pennsylvania are already confronting an increasing volume of large-load interconnection requests, driven in part by data centers and artificial intelligence. Invenergy commends the Commission for recognizing that this growth presents a critical opportunity for the Commonwealth. Invenergy respectfully submits that getting the Model Tariff right will be essential not only to ensure that Large Load Customers bear appropriate costs and support grid reliability, but also to avoid unintended barriers that could stifle future economic development and the infrastructure investment needed to serve them.

II. INVENERGY'S SUPPORTIVE AND TECHNICAL COMMENTS ON THE TENTATIVE ORDER AND MODEL TARIFF

A. Invenergy's Support for the Tentative Order and Model Tariff

As an active developer of generation and related infrastructure serving emerging large loads, Invenergy recognizes that the Model Tariff includes several important and forward-looking components. Invenergy strongly supports the Commission's focus on clear, enforceable interconnection study timelines, including the proposed six-month study period for Large Load Customers, the associated incentives for EDCs to meet that timeline, and the ability for large-load customers to retain qualified third parties to perform studies when an EDC cannot do so, subject to appropriate oversight by the relevant EDC. Together, these tools increase schedule discipline and reduce uncertainty for projects that must meet commercial deadlines while preserving the rigor appropriate for large-load application reviews.

Invenergy also supports the Commission's proposal for a public portal for large load applications, which will meaningfully enhance transparency for PJM Interconnection ("PJM"), customers, and generation developers engaged in system planning and investment decisions. A consolidated, regularly updated view of pending large-load projects will provide clearer insight

into where and when major new demands may materialize, supporting more efficient infrastructure planning and better alignment with PJM and local planning processes.

Likewise, the inclusion of a self-construct option for Large Load Customers willing to fully fund infrastructure upgrades will accelerate the deployment of needed facilities, better align costs with beneficiaries, and reduce the risk of delay for critical load-serving and generation investments. The self-construct option recognizes that serving Large Load Customers will require significant transmission and distribution upgrades, and that those upgrades must be planned and funded in a way that preserves reliability and fairly allocates costs, providing a practical foundation for utility–customer collaboration on long-term infrastructure that supports the grid and the Commonwealth's economic-development goals.

Invenergy further recognizes the clear emphasis on cost causation and the protection of existing customers, which is essential to maintaining public confidence in large-load growth and in the generation and transmission investments required to serve it. The Model Tariff appropriately makes clear that Large Load Customers should bear the costs they impose on the system. By incorporating contributions-in-aid-of-construction, minimum billing provisions, and long-term commitments into the Model Tariff, the Commission establishes a robust, principle-based framework that is both fair and economically efficient.

The Model Tariff provides a solid foundation for addressing large-load growth in a manner that supports reliability, protects existing customers, and promotes continued infrastructure investment. At the same time, to ensure the framework fully captures the benefits of On-Site and Contracted New Generation and promotes efficient, least-cost system planning, Invenergy offers the following comments on the proposed minimum demand charge structure and the design of the Network Open Season ("NOS") planning studies.

B. Treatment of On-Site Generation and Contracted New Generation; Need for Clear Netting and Standby Methodology

The Commission correctly recognizes that Large Load Customers rely on On-Site Generation rather than consistently using their full interconnection capacity. Properly structured, On-Site Generation can lower costs for all customers, support reliability during system stress, and help integrate a diverse set of energy resources. Invenergy therefore recommends that the Commission give Large Load Customers meaningful flexibility to choose energy and interconnection configurations that incorporate On-Site Generation in ways that reduce costs to other customers, enhance reliability, and make more efficient use of grid infrastructure. To unlock these benefits while preserving the integrity of the minimum-billing construct, the Model Tariff should adopt a clear netting and standby methodology that explicitly accounts for On-Site Generation in the minimum demand charge.

In addition, Large Load Customers increasingly add Contracted New Generation to the system. Although Contracted New Generation does not directly reduce a customer's metered demand at its point of interconnection, it can materially support resource adequacy, reduce congestion, and help defer or appropriately scale transmission and distribution upgrades when located in the same area of the system as the associated load. Recognizing the contribution of Contracted New Generation in NOS planning studies and, where appropriate, in cost allocation and related charges will encourage Large Load Customers to bring new, location-appropriate generation onto the system in step with large-load growth.

Where Contracted New Generation demonstrably reduces a Large Load Customer's contribution to system peaks or defers specific upgrades, the Model Tariff should specify how it will be reflected in minimum demand charges, standby charges, and capacity-related charges, including through clearly defined credits attributable to, and limited to, its contribution to resource

adequacy and to the deferral or downsizing of specific upgrades, consistent with cost-causation principles. In those circumstances, the Model Tariff should also provide proportionate flexibility by shortening the period during which Contract Capacity reductions are restricted (*i.e.* allowing reductions in Contract Capacity prior to the sixth year of service), as well as the look-back period used to determine the Minimum Billing Demand. The Model Tariff should also establish clear rules for how Contracted New Generation will be modeled in NOS planning studies, including when it reduces forecast peak demand or defers specific grid improvements, and how that modeling will affect the share of incremental upgrade costs assigned to each participating Large Load Customer.

Together, these provisions will give Large Load Customers and their development partners the predictability they need to invest in On-Site Generation and Contracted New Generation that support reliability, manage peak demand, moderate long-term rate impacts for all customers, and support investment certainty and efficient infrastructure development as large-load interconnection requests increase and significant new transmission and related infrastructure are required. As drafted, however, the Model Tariff merely provides that Large Load Customers with On-Site Generation "may be offered lower minimum demand charges and/or stand-by charges." That flexibility is a helpful step toward aligning cost recovery with actual usage, but the Model Tariff neither requires EDCs to make such adjustment nor provides an objective standard to account for the impact of On-Site Generation or Contracted New Generation on minimum demand and standby charges or to explain how Contracted New Generation will be treated in NOS planning and related charges.

This lack of a clear structure for netting and standby treatment leaves considerable discretion to each EDC. Large Load Customers, their developers, and potential investors need

transparent, objective information to support financial modeling and efficient development planning, particularly when a portion of the load is self-supplied through On-Site Generation or Contracted New Generation. Without clear, objective rules for how On-Site Generation and Contracted New Generation affects minimum demand charges and how Contracted New Generation is reflected in NOS planning studies and any associated charges, Large Load Customers cannot accurately evaluate when and how much power to draw from the grid versus their own generation investments, or how those investments will impact system peaks and infrastructure needs.

Absent that clarity, Large Load Customers risk being treated as full-requirements customers for minimum-demand purposes with respect to their on-site load and may be unable to realize the system benefits of Contracted New Generation in planning and cost allocation, even when their overall contribution to system peaks and infrastructure costs is materially lower. For Large Load Customers that rely on their own generation investments, the absence of clear rules specific to such resources raises concerns about inconsistent and potentially discriminatory treatment by individual EDCs. Because the Model Tariff does not explain how EDCs will calculate minimum demand charge when On Site Generation or Contracted New Generation is present, each EDC could adopt its own internal practices for how such generation affects minimum demand and apply those practices differently across customers and locations, even for similar projects.

In addition, clear, Commission-endorsed netting and standby rules that recognize the contribution of On-Site Generation and Contracted New Generation, together with transparent recognition of Contracted New Generation in NOS planning and related cost allocation, will ensure that needed generation comes onto the system in step with large-load growth. By allowing Large Load Customers and their development partners to capture the system value of both On-Site

Generation and Contracted New Generation, the Model Tariff can encourage new generation that supports reliability, reduces the need for more costly infrastructure expansion, and maintains robust protections for existing customers while providing the certainty needed for long-term investment planning.

These concerns are not hypothetical. In its review of the PJM Tariff related to whether PJM's tariff adequately governs service to large loads co-located with generating facilities, the Federal Energy Regulatory Commission ("FERC") held that PJM's tariff is unjust and unreasonable because it lacks clear and consistent provisions governing "rates, terms, and conditions of service" for interconnection customers serving co-located load and their related transmission service customers. *PJM Interconnection, L.L.C., et al.*, 193 FERC ¶ 61,217 at 79 (Dec. 18, 2025). FERC directed PJM to revise its tariff to establish transmission service options and rules for serving co-located loads, in order to safeguard grid reliability and protect consumers across the PJM footprint. *Id.*

The FERC Order provides a useful analogue for the Model Tariff and Invenergy's recommendations here. FERC required PJM to replace informal guidance with clear, nondiscriminatory tariff rules for On-Site Generation to prevent inconsistent treatment of similarly situated customers. Invenergy's proposals likewise recommend a transparent framework in the Model Tariff to avoid the uncertainty and inconsistency FERC found in PJM's tariff. The result should be objective netting and standby methodologies for On-Site Generation and Contracted New Generation, along with NOS planning standards, that accommodate large-load growth consistent with cost-causation principles while promoting comparable treatment of similarly situated customers.

1. Opportunities to Align the Minimum Billing Structure with Co-Located Generation and Structure the NOS

As drafted, the Model Tariff ties a Large Load Customer's minimum demand charge to a fixed percentages of its Contract Capacity or prior peak usage (whichever is higher), and requires at least a five-year initial Contract Term (following any Load Ramp Period), with only limited opportunities to reduce Contract Capacity thereafter and only with 42 months' advance notice. These provisions apply uniformly, even where a Large Load Customer has made substantial investments in On-Site Generation or Contracted New Generation located on the same portion of the system and shown in NOS studies to reduce its contribution to peak load and upgrade needs. Invenergy's recommendations below are intended to preserve the strength of that minimum-billing construct while tailoring its application where such resources demonstrably lower system costs and risks. In its Final Order, the Commission could:

(a) **Acknowledge the cost-causation role of On-Site Generation and Contracted New Generation** by stating that, where a customer's On-Site Generation demonstrably and reliably reduces its contribution to system peaks or defers specific infrastructure investments, EDCs should reflect those impacts in the calculation of minimum demand and standby charges.

(b) **Direct EDCs to file standardized, objective methodologies** in their compliance filings describing how they are treating On-Site Generation and Contracted New Generation for purposes of the eighty (80%) percent Minimum Demand Charge and related capacity charges, including at a minimum:

(i) how they are measuring net load (for example, based on metered demand at specified times or over defined billing periods);

(ii) the conditions under which they are allowing netting against On-Site Generation or Contracted New Generation (for example, where generation is firm, dispatchable, or backed by contractual performance guarantees);

(iii) how they are structuring standby charges when On-Site Generation is expected to serve a portion of the Large Load Customer's load but maintains higher interconnection capacity for redundancy; and

(iv) how, consistent with Commission-approved cost-causation principles, they will reflect Contracted New Generation that demonstrably reduces a Large Load Customer's contribution to system peaks or defers specific upgrades in minimum demand charges, standby charges, and capacity-related charges, including through clearly defined credits attributable to, and limited to, its contribution to resource adequacy and to the deferral or downsizing of specific upgrades.

(c) **Maintain EDC flexibility while improving predictability** by articulating guiding principles, such as the standard that minimum billing demand should reflect a customer's expected contribution to system costs, considering On-Site Generation and Contracted New Generation, while allowing each EDC to propose detailed tariff language consistent with those principles.

(d) **For Contracted New Generation,** provide that:

(i) the period during which a Large Load Customer with Contracted New Generation is restricted from reducing its Contract Capacity may be shortened and may include defined step-down rights that reflect the demonstrated contribution of such Contracted New Generation;

(ii) any provision that sets a minimum Monthly Billing Demand or minimum demand charge based on prior usage shall be limited to a six month look-back period where the Large Load Customer demonstrates sustained reductions in peak demand attributable to Contracted New Generation; and

(iii) under the Commission-approved methodology described above, capacity-related charges will include clearly defined credits, limited to reflecting the contribution of Contracted New Generation to resource adequacy and to the deferral or downsizing of specific upgrades, with such credits attributable to, and limited to, its contribution to resource adequacy and to the deferral or downsizing of specific upgrades, consistent with cost-causation principles.

In addition, footnote three of the Model Tariff notes the absence of a structure for NOS and seeks comment on that structure. Accordingly, Invenergy requests that the Commission (a) adopt clear, publicly available NOS standards that specify the study methodologies to be used, clearly defined study deposits (including amounts, timing, and refundability), the load and resource assumptions to be applied, and the criteria for determining needed upgrades; (b) establish firm timelines for each stage of the NOS process, including defined windows for request submission, study initiation and completion (with maximum study durations), and milestones for customer decisions; (c) expressly authorize the use of qualified third-party study providers operating under the same Commission-approved principles and subject to Commission oversight; and (d) require objective, published standards for evaluating and prioritizing competing requests, including how costs will be allocated among participating customers and how associated Contracted New Generation will be jointly modeled and coordinated in interconnection treatment to avoid inconsistent assumptions or double-counting. The recommended standards in part (d) should be

aligned with the proposed Commission-approved methodology for recognizing Contracted New Generation, so that any demonstrated reductions in a Large Load Customer's contribution to system peaks or deferral of specific upgrades are reflected consistently in both NOS cost allocation and in minimum demand, standby, and capacity-related charges. Establishing these parameters upfront will give participants confidence in the NOS process, support efficient and timely system expansion, and help ensure that costs are allocated fairly and in proportion to the benefits and needs driving new infrastructure investments.

III. CONCLUSION

For the foregoing reasons, Invenergy respectfully requests that the Commission adopt a Model Tariff that preserves cost-causation principles while providing clear, predictable interconnection and pricing rules for Large Load Customers. In particular, the Commission should adopt transparent interconnection study procedures (including the option to use qualified third-party study providers and a public application portal), refine the minimum billing and standby framework to account explicitly for On-Site Generation and Contracted New Generation, and establish clear, publicly available standards for NOS planning studies and the allocation of incremental upgrade costs.

Accordingly, Invenergy respectfully asks the Commission to adopt pro forma large-load interconnection procedures and a Model Tariff consistent with these recommendations.

Respectfully submitted,

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