



October 22, 2018

*VIA ELECTRONIC FILING*

Rosemary Chiavetta  
Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street  
Harrisburg, PA 17120

**Re: M-2015-2518883– Sunrun, Inc. Comments**

Dear Ms. Chiavetta:

Enclosed please find Sunrun, Inc.'s Comments on the Proposed Policy Statement in the above-referenced matter. Please contact me at any time if you have any questions or concerns regarding this filing.

Thank you for your assistance.

Sincerely,

*/s/ Nicole W. Sitaraman*

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**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Fixed Utility Distribution Rates** :  
**Policy Statement** : **M-2015-2518883**

**COMMENTS OF SUNRUN, INC.**

Pursuant to the Pennsylvania Public Utility Commission’s (“PUC” or “Commission”) August 14, 2018 Notice in the above-referenced matter, Sunrun, Inc. (“Sunrun”) respectfully submits the following comments regarding the Commission’s Fixed Utility Distribution Rates Proposed Policy Statement and guidelines that each utility and stakeholder should consider in rate proceedings involving alternative ratemaking methodologies. Sunrun appreciates the opportunity to provide input on the issues addressed in this proceeding.

**I. INTRODUCTION**

The Commonwealth of Pennsylvania has tremendous potential for deployment of distributed energy resources (“DER”) such as rooftop solar, battery storage, energy efficiency and microgrids. As reflected by the passage Act 40 and Act 58 by the Pennsylvania legislature, consumers want more in-state solar and communities are interested in exploring a holistic pathway to both galvanize greater deployment of clean energy and facilitate a more reliable and resilient grid. Forward-looking, consumer-centric ratemaking options comprise a fundamental component of this process. Sunrun supports the Commission’s commitment to exploring smart rate design options that will enable more customer adoption of solar and battery storage, as well as greater cost savings for consumers and utilities. The comments submitted herein provide a general overview of a framework of guiding principles that we believe will provide a foundation for future review of alternative ratemaking possibilities.

## **II. BACKGROUND ON SUNRUN, INC.**

Sunrun is a leader in residential solar, storage, and energy management with over 200,000 customers in 23 states, the District of Columbia and Puerto Rico. Sunrun pioneered the “solar-as-a-service” model more than ten years ago and today we are the largest dedicated residential solar, storage, and energy services company in the United States. Sunrun has served Pennsylvania consumers for many years. Sunrun’s solar and storage services empower consumers through monthly savings on their energy expenses and reduction in carbon and pollution emissions. Pennsylvania consumers are interested in solar and the benefits that it can provide to the environment, household expenses, grid reliability and ratepayers overall. We look forward to collaborating with Pennsylvania energy stakeholders to advance policy initiatives that will catalyze greater deployment of rooftop solar and battery storage in the state.

## **III. COMMENTS**

The PUC has proposed the following list of distribution rate considerations to guide its review of rate proposals.

“§ 69.3302. Distribution rate considerations.

“(a) In determining just and reasonable distribution rates that promote the efficient use of electricity, natural gas or water, as well as the use of distributed energy resources, the Commission will consider, among other relevant factors:

- (1) How the rates align revenues with cost causation principles as to both fixed and variable costs.
- (2) How the rates impact the fixed utility’s capacity utilization.
- (3) Whether the rates reflect the level of demand associated with the customer’s anticipated consumption levels.
- (4) How the rates limit or eliminate inter-class and intra-class cost shifting.
- (5) How the rates limit or eliminate disincentives for the promotion of efficiency programs.
- (6) How the rates impact customer incentives to employ efficiency measures and distributed energy resources.
- (7) How the rates impact low-income customers and support consumer assistance programs.
- (8) How the rates impact customer rate stability principles.
- (9) How weather impacts utility revenue under these rates.

(10) How the rates impact the frequency of rate case filings and affect regulatory lag.

(11) If or how the rates interact with other revenue sources, such as Section 1307 automatic adjustment surcharges, 66 Pa. C.S. § 1307 (relating to sliding scale of rates; adjustments), riders such as 66 Pa. C.S. § 2804(9) (relating to universal service and energy conservation policies) or system improvement charges, 66 Pa. C.S. § 1353 (relating to distribution system improvement charge).

(12) Whether the alternative rate mechanism includes appropriate consumer protections.

(13) Whether the alternative rate mechanism is understandable and acceptable to consumers and comports with Pennsylvania law.

(b) In any distribution rate filing by a fixed utility under 66 Pa. C.S. § 1308 (relating to voluntary changes in rates), the fixed utility shall explain how these factors impact the distribution rates for each customer class.”<sup>1</sup>

With respect to the above proposed considerations highlighting cost causation principles and cost-shifting, Sunrun respectfully submits that the Commission should also consider any benefits of current or proposed rate design options have for consumers, the utilities and the grid.<sup>2</sup> Without full consideration of the benefits of a rate design approach, a review centered only on costs is incomplete and could stifle greater adoption of clean energy options by consumers. As noted by the Solar Energy Industries Association, “[i]n determining the proper rates to cover cost of service, the benefits of distributed solar generation should be properly calculated and incorporated.”<sup>3</sup>

#### A. Incentivizing Utilities

Utility compensation should be aligned with the principle of empowering customers and non-utility market participants to manage power consumptions and deliver system solutions, and with the utility’s role in achieving renewable energy procurement, energy efficiency and demand

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<sup>1</sup> Case No. M-2015-2518883, *Proposed Policy Statement Order*, at 27-28, rel. May 23, 2018.

<sup>2</sup> See generally, Muro, Mark and Saha, Devashree. *Rooftop solar: Net metering is a net benefit*, Brookings. 5/23/16. <https://www.brookings.edu/research/rooftop-solar-net-metering-is-a-net-benefit/>; *Shining Rewards: The Value of Rooftop Solar Power for Consumers and Society*, Environment America Research & Policy Center. Summer 2015. [https://www.seia.org/sites/default/files/resources/EA\\_shiningrewards\\_Summer2015.pdf](https://www.seia.org/sites/default/files/resources/EA_shiningrewards_Summer2015.pdf)

<sup>3</sup> Solar Energy Industries Association, *Rate Design Guiding Principles for Solar Distributed Generation*, available at: [https://www.seia.org/sites/default/files/resources/RD\\_guiding\\_principles\\_FINAL.pdf](https://www.seia.org/sites/default/files/resources/RD_guiding_principles_FINAL.pdf).

reduction, grid modernization, safety and reliability, customer service, emissions, cost and affordability goals, and other state energy policy priorities and customer service goals. Sunrun supports performance-based incentives that provide financial rewards to utilities for meeting and exceeding the state's energy policy objectives, as well as expanding customer choice. We envision a future in which a majority of utility earnings are from performance-based incentives, with return-on-equity declining as a share of earnings. These incentives should be sufficient to overcome the bias toward capital investment while still providing utilities the opportunity to earn adequate revenues. The key is to design the compensation mechanisms to incentivize the right kinds of investment: those that advance the state's energy and other public policy goals.

Sunrun supports incentive mechanisms in the following categories:

- Increased reliance on DERs to reduce peak demand, ensure system reliability, reduce bulk power purchase, and lower electricity costs;
- Emissions reductions;
- System reliability and resilience improvement;
- Interconnection timeliness and reduced costs for behind-the-meter DER improvements
- Effective use of DER as a hedge against generation fuel price risk
- Effective and efficient implementation of grid modernization technologies and systems
- Electricity affordability
- Customer service

Stakeholder proceedings provide a transparent and effective process for establishing consensus on specific goals, metrics, and incentives. Greater community engagement will be key in ensuring that consumers understand and support any performance-based incentives being reviewed. Once established, incentives may be awarded to utilities based on annual evaluations, and specific goals and metrics can be reassessed, as needed, at the initiation of the Commission or the request of the utilities or stakeholders.

## B. Utility Investments for DER

Sunrun notes that one of the PUC's first-order principles states that: "[t]he evolution of a distributed energy environment requires substantial and well targeted investment in distribution infrastructure."<sup>4</sup> Sunrun, however, encourages consideration of DER as a pivotal way to avoid greater infrastructure investment and a critical component of providing least-cost energy solutions to the consumers. A more distributed energy environment is a modern energy delivery system that is customer-centric, affordable, resilient and run by renewable energy. A modern grid will be one in which residential consumers are no longer categorized as solely end-users but are treated as partners with utilities and DER providers in the production and dispatch of renewable energy and energy management resources for the benefit of all ratepayers.

Customer-centric grid modernization driven by DER should become a part of normal business practice for utilities and an integral part of policymaking for the Commission. Investments in the electric grid and innovative solutions to infrastructure needs should be evaluated in rate case proceedings and held to the same standards as other capital investments – using a long-term cost-benefit analysis that takes into account long-term energy goals. For example, a modern grid enables Non-Wires Alternatives (“NWAs”) utilizing solar and battery storage to become standard solutions to utility infrastructure needs, reducing costs for ratepayers.

NWAs provide significant benefits to distribution system planning, including the ability to defer and/or completely avoid the need for the ratepayer-funded utility capital expenditures on unnecessary distribution network poles and wires. NWAs further provide the benefit of peak demand reduction and reduce the need for expensive, dirty power plants. As noted in SEIA's recent whitepaper, “DER and the Non-Wires Solution Opportunity,” NWAs produce tremendous

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<sup>4</sup> *Proposed Policy Statement Order* at 29.

ratepayer benefits, encourage customer adoption of clean energy, and improve grid resilience and reliability. SEIA states,

“[Non-Wires Solutions (“NWS”)] will be a key part of holding down utility system costs in the future, which will lead to significant ratepayer savings. As utilities are required to make public more of their system planning and expected investments, in many instances, DER providers will be able to offer solutions to meet utility needs that may otherwise be met through additional distribution grid infrastructure investments at a fraction of the cost. This will ultimately result in savings for ratepayers as utilities are able to contract with DER providers for more cost-effective solutions, and policymakers can develop tariffs that support DER to offset or relieve grid needs.”<sup>5</sup>

SEIA further adds,

NWS are an important tool in moving to a more customer-centric electric system. In many instances, NWS will be met by deploying technology that allows customers to reduce and manage their energy usage. For example, to defer the need to upgrade an overloaded substation or feeder, utilities may develop tariffs that incentivize customers to reduce their energy use and shift load away from peak hours by using distributed resources such as smart home technology, distributed solar, or storage.”<sup>6</sup>

### C. Demand Charges

Additionally, we acknowledge that the Commission, in this proceeding, will not render any specific decision regarding acceptable or unacceptable rate design. However, we offer the following perspective on demand charges. Sound rate design is fundamental to driving the deployment of solar-plus-storage and extrapolating the various grid and consumer benefits solar-plus-storage can provide. With respect to the appropriateness of applying demand charges to residential customers, Sunrun is opposed to this rate design approach as it could be a disincentive for consumer adoption of solar. In general, Sunrun believes that customer-friendly time-of-use

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<sup>5</sup> See Umoff, Rick, et al., Solar Energy Industries Association, DER and the Non-Wires Solutions Opportunity, May 2018, available at: [https://www.seia.org/sites/default/files/2018-05/SEIA-GridMod-Series-5\\_2018-May-Final.pdf](https://www.seia.org/sites/default/files/2018-05/SEIA-GridMod-Series-5_2018-May-Final.pdf).

<sup>6</sup> *Id.*

rate options that shift usage off-peak are preferable to demand charges. Further, as noted in NARUC’s *Manual on Distributed Energy Resources Rate Design and Compensation*:

“[A]s opponents argue and proponents agree, there are many unknowns and much uncertainty surrounding the use of demand charges on classes other than C&I—mainly regarding customer impacts. Empirical data on the impacts as well as customer acceptance and responses to residential and small commercial demand charges are insufficient. In a review of residential demand charge rate designs, [the Rocky Mountain Institute] identified only 25 demand charge rates offered to residential customers, and none of them were large investor-owned utilities implementing mandatory demand charges for residential or small commercial customers.

Opponents urge great caution in using these rates, as they state severe cost shifting can occur. They also generally state that the primary function of demand charges, namely temporal differences in cost causation, can be better conveyed through other mechanisms. These parties assert traditional demand charges overcharge low-use customers, which tend to have lower load factors but ones that often peak at times that do not contribute to system peaks. This stems from the fact that residential customers are much more diverse in their usage and thus tend to share capacity, especially multi-family customers, whose demand is met in the aggregate and not on an individualized basis.

Opponents also argue that demand rates do not have an actionable price signal and are confusing to customers. Indeed, economists, such as UC Berkeley Professor Severin Borenstein, state, “It is unclear why demand charges still exist.” They assert the charges are poorly understood by customers as compared with volumetric rates, and therefore struggle to adequately convey an understandable price signal. Even if they did better reflect utility costs and represent a clear price signal, demand charge signals are most likely not sufficiently actionable for customers without demand limiters, expensive technology, or drastic behavioral changes. Thus, lower-income customers may be disproportionately affected as they may have less control over peak demand usage. This signal could be further obfuscated as there is a smaller margin for customer error; higher bills can be earned through a shorter time frame of a lapse of attention (e.g., too many appliances on at once) or a one-off event such as a house guest, which can also result in the possibility of higher bill volatility from month to month.”<sup>7</sup>

Sunrun has long maintained that it is inappropriate and unfairly punitive to apply demand charges to residential customers, who typically lack the knowledge, data and/or ability to avoid

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<sup>7</sup> *Manual on Distributed Energy Resources Rate Design and Compensation*, NARUC, 2016 (“Manual”) at 103—05.

their damaging impacts. We look forward to staying engaged in the conversation regarding alternative ratemaking in Pennsylvania.

#### **IV. CONCLUSION**

**WHEREFORE**, Sunrun, Inc. respectfully requests that the Commission fully consider its comments herein.

Respectfully submitted,

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Dated: October 22, 2018