



September 8, 2017

Macky McCleary
Administrator
Division of Public Utilities and Carriers
89 Jefferson Boulevard
Warwick, RI 02888

Carol J. Grant
Commissioner
Office of Energy Resources
One Capitol Hill
Providence, RI 02908

RE: Comments from Sunrun Inc. In Response To Initial Considerations on Utility Compensation

Administrator McCleary and Commissioner Grant:

Sunrun Inc. ("Sunrun") submits the following comments in response to the Division of Public Utilities and Carriers ("Division") and the Office of Energy Resources ("Office") Initial Considerations on Utility Compensation ("Notice"), issued on August 15, 2017.

Sunrun is a leader in residential solar, storage, and energy management. We pioneered the "solar-as-a-service" model 10 years ago, and today Sunrun is the largest dedicated residential solar company in the United States. Sunrun believes there is a better, less expensive, cleaner way for families to power their homes and with Sunrun's residential rooftop solar, storage and energy services, homeowners are saving money while dramatically reducing the amount of air pollution and carbon dioxide ("CO₂") released into the atmosphere. As a leader in residential distributed energy resource ("DER") deployment, Sunrun has a high interest in the evolution of the electric grid, rate design, and utility business and compensation models.

Sunrun commends the Division and the Office for its ongoing efforts in the Power Sector Transformation Initiative. We appreciate the opportunity to offer these comments to assist the Division and the Office in achieving the goals Governor Raimondo established to create a more nimble electric grid to strategically integrate clean energy resources and to enable customers to take advantage of new clean energy technologies. Sunrun provides the following in response the questions posed in the August 15th Notice.

Questions for Discussion and Comment

Please provide any recommendations related to the components of the multiyear rate plan described on page 6 of this document.

Sunrun supports the robust consideration of a multiyear rate plan ("MRP") and believes that MRP could help facilitate more effective implementation of Rhode Island's power sector transformation goals. Given the complexities of developing and transitioning to MRP, we encourage a transparent and deliberative process that allows for additional opportunities for stakeholder engagement at multiple stages of the consideration and development of MRP proposals. Sunrun offers the following initial observations and comments on the elements of MRP discussed in the Notice.

1. Rate case moratorium

Experience in other jurisdictions demonstrates that a rate case moratorium must be sufficient in duration to reduce costs and improve efficiencies, but short enough to ensure that regulators are able to maintain sufficient oversight and make adjustments to rates. This is a particularly important consideration as information technology and data acquisition and management capabilities improve, and as utilities center their attention on grid modernization to facilitate the integration of DER and invest in advanced grid management technologies. We encourage the consideration of these factors, along with robust data analysis and the corresponding elements of MRP to inform the duration of a rate case moratorium.

2. Attrition Relief Mechanism

Attrition relief mechanism (“ARM”) design can take different forms, including predetermined increases in rates or revenues based on cost growth forecasts; variable increases tied to an index such as the consumer price index or the gross domestic product price index, or a combination of indexing for operations and maintenance and glide-paths for incremental capital expenditures; and rate freezes that incorporate cost tracking and other earnings adjustment mechanisms. ARM should be carefully considered to ensure that it does not confound other MRP goals and better utility cost management. The specifics of ARM design should be considered in conjunction with cost tracking and other elements of MRP to ensure that cost containment incentives are established and maintained.

3. Cost Trackers

For MRP to be successful, cost trackers should be limited to costs that are difficult for the ARM to address, such as fuel and purchased power expenses, and demand side management and DER program expenditures. The use of cost trackers to recover capital expenditures can disincentivize the utility to contain costs and undermine the potential benefits of MRP. However, some limited exceptions may be appropriate if a surge in capital expenditures is necessary to facilitate corresponding utility obligations, such as grid modernization directives. The extent of costs recoverable under such an exception should be carefully considered and designed so as not to disincentivize the utility to achieve other goals, such as implementing NWAs and other cost-saving measures that offer the utility a lower ROE potential.

4. PIMs to Prevent Degradation of Services

Sunrun supports the use of PIMs to incentivize utility performance and to prevent service degradation. Applicable PIMs include utility cost containment, asset performance, system reliability and safety, and customer service. Any failure by the utility to achieve the specified targets in any of these PIMs should result in a revenue adjustment. Sunrun believes that an incentive payment for exceeding targets for these PIMs may be appropriate and worthy of exploration but believes penalties for failure to meet degradation of services PIMs is the best incentive for ensuring utilities meet minimum performance standards.

5. PIMs to Achieve Specific Goals and Shift Utility Incentives

Sunrun supports the implementation of PIMs to achieve specific goals, particularly DERs, as an element of MRP. The long-term obligation for the utility is, and should continue to be, to support and respond proactively to the fundamental right of customers to manage their own electricity use. The Power Sector Transformation Initiative is a critical step towards establishing a regulatory framework that ensures that these rights are secure and fairness, safety, reliability and power quality are maintained as the utility business evolves. This framework should be built for the benefit of customers. Customers’ options to

invest in DERs as an alternative to energy provided solely by their utility continue to grow, and should be encouraged. It is fundamental to the Rhode Island's Power Sector Transformation Initiative goals that the Commission sustain and ensure that utility operations and planning processes expand customer choice and protect customers' rights to manage their power needs via customer-sited renewable generation, demand response, energy efficiency, and other DERs. Developing DER-specific metrics and associated incentive mechanisms to guide and encourage the utility to achieve these goals should be an element of MRP.

Please provide any recommendation regarding the metrics outlined in Tables 4, 5 and 6 to ensure they are comprehensive and specific. In particular, please provide any recommendations related to development of the metric formulas.

Sunrun supports the gradual implementation of additional metrics and incentive mechanisms to encourage the utility to achieve the regulatory goals identified in the Notice. As a general observation, many of the metrics proposed in the Notice overlap in terms of their goals and the actions the utility might take to reach those goals. Additionally, certain metrics may actually be outcomes that result from efforts undertaken to achieve goals through other proposed metrics. For example, CO₂ emission reductions should be encouraged, and may be an appropriate basis for a PIM, it is also one of the desired outcomes of increased adoption of renewable energy and energy efficiency. Similarly, while time-varying rates are a useful tool for incentivizing reductions in peak demand (among other goals), they are not an appropriate metric to gauge whether the utility is providing value to customers or increasing system efficiencies when other metrics assess those outcomes more directly. While some overlap across metrics and goals may be unavoidable, providing additional granularity to the proposed metric formulas and clarifying the difference between desired outcomes, goals, and the formulas used to calculate compensation would enhance the effectiveness of performance incentives (or penalties) associated with the individual metrics.

With respect to the metric formulas, numerous elements are affected by factors outside of the utility's control. This should be taken into account in identifying metrics, defining the purpose of each metric, developing the metric formulas, and determining whether incentive payments or penalties are available or applied to any particular metric. Incentive mechanism formulas should be designed in a way that ensures that any compensation or penalty associated with a metric is clearly tied to utility action, or verifiable through data related to a specific program or system improvement that impacts the metric. Any new PIMs should be clear and straightforward in design, provide clear signals to the utility, and ensure that incentives are transparent to the utility, regulators, customers, and market participants. Successful design and implementation of PIMs relies on the availability and continuous tracking of specified data. The formulas used to determine compensation for any individual metric must be based on available data or data that can be readily obtained. In the near term, Sunrun encourages the Division and Office to prioritize readily-measurable and implementable PIMs based on existing data, and consider additional PIMs as additional data and information become available, and as the utility, regulators and stakeholders gain more experience with MRP.

1. System Efficiency Metrics

a. Transmission and Peak Demand, Distribution Peak Demand, Substation Peak Demand Metrics

Sunrun supports metrics for peak demand reduction and incentives that encourage system efficiency. However, peak demand is influenced by a number of factors, some of which are not in the utility's

control, and the utility should not be rewarded for results not directly attributable to its actions. The formulas for peak demand metrics should take this into account.

b. DG-Friendly Substations Metric

As proposed, it is not clear that the inclusion of a DG-Friendly substation metric serves a clear purpose or adds value to DG deployment. This metric could also create conflicting performance incentives to both proposed and existing metrics that encourage more renewable energy, because as more renewable energy is installed across Rhode Island, more substations will reach capacity limitations. A DG-Friendly Substation metric in combination with performance incentives for additional DG and renewables capacity provides rewards for the utility in both a scenario where low renewable energy and DG growth is achieved and in a scenario where high renewable energy and DG growth is achieved. Performance incentives should encourage clearly-defined policy goals that can be achieved through specific utility actions. These goals should not conflict and incentives should not be available for a utility to choose between competing goals. Additionally, the traditional solutions for substations at maximum capacity involve infrastructure investments, for which the utility already earns a return on investment. Depending on how ARM, cost tracking, and other components of MRP are designed, providing a performance incentive for such investments may be duplicative.

Sunrun also observes that the distribution system planning (DSP) process is designed specifically to identify distribution system needs, including substation upgrades. That process will be evolving as part of this Power Sector Transformation Initiative, including the incorporation of additional opportunities for third parties to offer solutions to capacity concerns and non-wires alternatives (NWAs). Adding a performance incentive for investments to allow for more substation capacity while there are efforts underway to utilize NWAs to avoid capacity investments may unnecessarily complicate the DSP and NWA procurement processes. While it is important to encourage the utility to make investments in the distribution system to allow for DG growth, it may be premature to introduce incentive mechanisms for DG-friendly substations while changes to the DSP process are still under consideration. Alternatively, a metric focused on analysis and modification of voltage regulator settings and protection as a proactive low-cost measure to make substations DG-friendly is worthy of incentive.

c. Distribution Load Factor and Customer Load Factor Metrics

Sunrun supports the adoption of this metric and is not opposed, in theory, to incentives based on load factors and system efficiency improvements. Similar to issues described above in incentivizing peak demand reductions, however, distribution and customer load factors are influenced by a number of variables, some of which are not in the utility's control. It is not clear at this stage whether there are sufficient data and tracking mechanisms to confirm whether improved load factors are a result of specific utility actions that are not already covered by other metrics (e.g. DER metrics). A performance incentive may not be appropriate for such metrics at this time, but may be at a later date as MRP and the corresponding elements come into focus.

d. Time-Varying Rates Metric

While Sunrun supports the adoption of time-varying rates, a time-varying rate metric with a performance incentive does not provide additional value to consumers or the grid in a way that is not already captured by other proposed metrics. Time-varying rates are a tool used to achieve certain outcomes, including metrics proposed in Table 4; e.g., decreasing peak demand. Furthermore, not all customers will benefit

from time-varying rates, and not all customer adoption of time-varying rates is a result of effective marketing or promotion by the utility. Incentivizing based on enrollment may lead to aggressive marketing to customers that aren't well-suited for time-varying rates, which is not a desired outcome. Therefore, Sunrun does not support including a metric for time-varying rates based on a percentage of customers have that have adopted such rate options. A better measurement of the quality of time-varying rate options may include metrics that measure customer awareness of the availability of rate options, customer satisfaction with time-varying rates, or implementation of tools that allow customers to evaluate different rate options. Customer satisfaction with rate options and customer awareness of time-varying rates could be incorporated into the utility's existing customer satisfaction survey and Customer Satisfaction PIM listed in Table 1 of the Notice.

e. CO₂ Intensity Metric

Sunrun strongly supports the goal of reducing all types of air pollutants, including CO₂ and other greenhouse gases. Measuring CO₂ emission intensity is helpful to determine progress toward reducing climate pollution, and Sunrun supports the adoption of this metric. Whether to provide a performance incentive for CO₂ emissions intensity reductions must take into account the utility's current obligations to reduce CO₂ emissions under RGGI, Rhode Island's renewable energy procurement targets and power sector CO₂ emission reduction requirements, and the fact that CO₂ reductions are also a function of the utility meeting other existing and proposed metrics for which the utility may receive performance incentives. Because this metric overlaps significantly with existing PIMs outlined in Table 1 of the Notice for efficiency, demand response, DG, and renewable energy, as well as new metrics proposed in Table 5 for Distributed Energy Resources, the formula for incentivizing emission intensity reductions should be structured as a separate incentive from renewable energy programs for customers. The metric should be based on utility-owned resources and designed in such a way to encourage the utility to operate facilities more efficiently, invest in emissions reduction technology, and invest in clean energy capacity in place of fossil-fuel capacity, and otherwise make investments that result in CO₂ emission reductions that go beyond its existing obligations, as noted above. The formula proposed based on emissions per customer would be an inefficient allocation of incentive payments if it rewards the utility for customer choices made outside of the utility's influence, for programs that support DERs, or for actions that the utility is already obligated to take.

2. DER Metrics

a. Energy Efficiency, Demand Response, Distributed Generation, Electricity Storage, and Electric Vehicles Metrics

Sunrun supports the development of additional metrics for DER; however, the metrics and formulas proposed for the DER category raises some concerns. First, the DER metrics proposed in Table 5 overlap significantly with existing PIMs in place for electricity efficiency, gas efficiency, long-term renewable contracts, DG standard contracts, Renewable Energy Growth program installations, and SolarWise incentives. Second, in contrast to the energy efficiency and demand response metrics proposed in Table 5, the DG, storage, and electric vehicle metrics do not appear to be tied to specific utility programs. This raises concerns about whether installations of DG or storage, or the adoption of electric vehicles measures is a direct result of utility efforts, and potential double counting of utility efforts where there is overlap with other metrics. For instance, the DG metrics formula would provide compensation based on the percent of customers with DG, DG installed capacity, and DG capacity by type, but is not tied to a particular program or specific utility actions. While the storage and electric vehicle formulas include an

element that ties a potential incentive payment to these metrics impact on DR programs, the other elements of the formula are not tied to a particular program and there is potential for the DR component of the formula to overlap with the proposed DR metric.

Sunrun supports performance incentives that reward the utility for facilitating DER growth but believes that metric formulas for calculating incentive (or establishing penalties) should include elements that tie the metric to verifiable utility actions and programs. In other words, metric formulas based solely on the number of installations, capacity of installations, or the percentage of customers that install or adopt DER technologies without tying those elements to verifiable utility actions or program increases the risk that the utility may collect incentive payments for outcomes that are unrelated to targeted utility actions or in the furtherance of a defined utility program, and increases the risk that the outcomes for which the incentive is applied is already captured by a separate metric. Sunrun recommends including an interconnection timeline metric (as included in the Network Support Services Metrics) as metric in support of DER goals. Including this element in the metric formula would tie the incentive formula to a specific area in which the utility exercises significant control and directly impacts the core purpose of the DG penetration metric across all types of DG.

3. Network Support Services Metrics

a. Advanced Metering Capabilities

Sunrun supports the increased utilization of advanced metering, however, it is not clear that an incentive is necessary or appropriate for encouraging the roll-out of advanced meters or advanced metering functionality (AMF). National Grid has stated a need to own all advanced metering infrastructure, and thus would earn a return on investment for advanced metering infrastructure (AMI). A targeted infrastructure deployment that also leverages 3rd party data and networks must be part of the plan to ensure costs are managed. The further adoption of AMI/AMF is necessary in achieving the goals outlined for the Power Sector Transformation initiative and something that the utility should be required to implement without a performance incentive. If an incentive is adopted for this metric, a penalty for failure to roll-out AMF/AMI in a timely manner or an incentive for leveraging 3rd-party data from the Internet of Things in lieu of additional network infrastructure investments may be appropriate.

b. Interconnection Support

Sunrun supports the inclusion of the Interconnection Support metric. This metric could also be enhanced by incorporating customer satisfaction with the interconnection process and interconnection completion, and the metric could be designed to account for utility efforts to clarify and simplify the interconnection process and timely process interconnection applications. Utilization of a customer satisfaction survey requires the development of survey questions, procedures, and scoring methodology before the PIM can be implemented.

For each of the proposed formulas for the Interconnection Support metrics, including 1) average days for customer interconnection, 2) percent difference between study cost estimate and final cost to DG developer, and 3) customer satisfaction numbers, a baseline must be established and measurable goals must be agreed upon. If data is currently available for these metrics, Sunrun supports development of an Interconnection Support metric with an incentive mechanism.

c. *Customer Access to Customer Information, Third-Party Access to Customer Information, Third-Party Access to Distribution Information, Distribution System Planning, and Customer Engagement Metrics*

Customer and third-party access to information, including customer information, distribution information, and heat maps, is important for achieving the goals of the Power Sector Transformation initiative and the rate design and future electric system goals adopted in Docket No. 4600. Sunrun supports a metric based on access to data; however, as proposed, the metrics listed (Customer Access to Customer Information, Third-party Access to Customer Information; Third-Party Access to Distribution Information; Distribution System Planning; and Customer Engagement) overlap significantly, and risk providing separate incentives for the same effort. Furthermore, it is unclear at this time how the data for the proposed formulas would be measured -- specifically, how the ability to access daily usage data, the ability to access hourly usage data, the ability to provide data to third parties, the accessibility of heat maps, or data portal functions would be measured. Sunrun believes it is premature to establish incentives for this metric based on these categories while the RI Data System Portal is still a proposed idea at this phase, and while the changes to the DSP process and heat map development are underway. In the Distribution System Planning workstream of the Power Sector Transformation process, Sunrun has proposed a stakeholder working group process to develop, maintain, and improve the proposed RI System Data Portal. The working group can also consider how to best develop this metric and propose potential performance incentives as part of its process, as stakeholders and National Grid establish priority datasets and functionalities.

If there is an area that would benefit from a metric not included here please provide any recommendations for it.

Sunrun recommends including a DER-related customer service metric in the Distributed Energy Resources category. A DER-related customer service metric would indicate utility performance in communication with customers throughout the DG and energy storage interconnection process and customer satisfaction with utility programs that support DERs. The metric formula would include elements related to the development and management of the RI System Data Portal discussed in further detail in the DSP track of this Power Sector Transformation Initiative.

More generally, Sunrun encourages the Division and Office to allow for periodic review of the individual metrics to correct for inappropriate market signals or changes in market conditions. Additional areas for PIMs or metrics could be proposed during this review. Periodic review of the metrics and PIMs will be particularly important as more data is incorporated in the RI System Data Portal.

Among the three broad groups of metrics, System Efficiency, Distributed Energy Resources and Network Support Services, please provide recommendation of how much weight should be allocated to each broad category, perhaps in terms of percentage of a total performance incentive allocation budget.

Sunrun proposes delaying any decision regarding specific weight allocations until after the metrics and specific goals for the metrics are clearly defined. As proposed, there is significant overlap between each of the categories; each category should be narrowed to focus on a few separate, key goals before weight can be allocated across different categories.

Please provide any recommendations for how you think the metrics should be structured, or nested, within the broad categories.

Sunrun supports maintaining the existing PIMs categories including Service Quality and Renewables and Distributed Energy Resources, and adding categories for System Efficiency and Network Support Services. The proposed category in the Notice for DER metrics can be incorporated into the existing Service Quality and Renewables and Distributed Energy Resources category. In summary, Sunrun proposes a categorization of potential new PIMs in the table below.

Category	New PIMs and implementation term
Service Quality	N/A
Renewable Energy and DERs	DER-Related Customer Service (Short and Long Term), Energy Storage and Expanding Opportunities for DER (Long Term)
System Efficiency	GHG Intensity, Peak Demand Reductions, Customer Load Factor, Distribution Load Factor (Short Term), Expanding Opportunities for DER related to NWAs (Long Term)
Network Support Services	Interconnection Support (Short Term); Data Access, Distribution System Planning, Customer Engagement, Expanding Opportunities for DER (Long Term)

Sunrun does not believe it is necessary, or beneficial, to develop PIMs for all of the proposed metrics identified and discussed above at this stage, but supports the development of the metrics and the collection of information and data to determine whether PIMs should be applied to certain metrics in the future. Any new PIMs should be simple, easily-measured, clearly defined, transparently calculated, and directly tied to utility actions. In the short term, the PUC should prioritize PIMs that rely on available datasets, while future PIMs should be considered and developed as data and information become available and in response to corresponding market developments and changes implemented pursuant to the broader Power Sector Transformation Initiative.

Please provide any recommendations related to any of the Innovation Partner Models described on page 11 of this document.

Third-party operated advanced meters

The Notice proposes to allow third parties to operate advanced meters as a platform for data-based services. Sunrun supports allowing third parties to operate advanced meters, assuming customer and developer data protection measures are in place, as such models can allow for innovative energy management systems and DER solutions. However, Sunrun does not agree that National Grid must own advanced meters in order to ensure reliability. Third parties can own and operate advanced metering equipment while maintaining reliability, and to the extent a third-party can provide metering services to customers via terms that are more favorable for the customers, they should be permitted to do so and should be encouraged. Reliability can be ensured by requiring any providers of metering equipment to agree to standards for operations, security, and maintenance. New York allows third-party ownership of advanced metering equipment, and could serve as a model for opening this market opportunity in Rhode Island. Allowing third-party-owned and/or -operated advanced metering equipment can result in cost



savings for customers, and would allow customers and providers to explore new or innovative energy management systems.

Development of a licensing model that allows National Grid to receive revenue from third-party operation of metering equipment must be accomplished through a transparent stakeholder process that considers the costs of meter operations to the utility, cost-savings incurred as a result of third-party operation, cost-savings resulting from improved operations by third-parties, and the costs of coordination with the third-party operators.

Data analytics

The Notice proposes to allow National Grid to offer improved or repackaged data and information for a fee as a source of revenue for National Grid to offset other expenses for the benefit of ratepayers. Sunrun encourages caution in pursuing this model of revenue generation for National Grid. In general, users and customers should not be subject to payment in order to utilize data provided by National Grid. Data sharing is a critical component of transforming the power sector and meeting the goals adopted and presented in the Notice. Requiring payment for access to data that will enable Rhode Island to meet these goals would serve as a barrier, stifling innovation and preventing new providers from entering the market. In the Distribution System Planning work stream of the Power Sector Transformation process, Sunrun proposed a stakeholder working group process to develop, maintain, and improve the proposed RI System Data Portal. If the Commission chooses to pursue this Innovative Partner Model, the working group should be tasked with identifying which datasets and information are truly value-added and beyond the scope of what should be made available to the public.

We appreciate the opportunity to provide these comments.

Sincerely,

Christopher J. Rauscher, Director of Public Policy

Gracie Walovich, Manager of Public Policy