



July 18, 2017

Vermont Public Utility Commission
112 State Street
Montpelier, VT 05620-2701

RE: Comments from Sunrun Inc. in Response to Order Opening Investigation, Request for Comment, and Notice of Workshop regarding Utility Rate Regulation

Sunrun, Inc. (“Sunrun”) respectfully submits the following comments in response to the Vermont Public Utility Commission’s (“Commission”) June 26, 2017 Order Opening Investigation, Request for Comments, and Notice of Workshop (“Order”) requesting comments on the potential issues for the August 8, 2017 workshop.

Sunrun is a leader in residential solar, storage, and energy management. We pioneered the “solar-as-a-service” model 10 years ago and today are the largest dedicated residential solar company in the United States. Sunrun commends the Commission and the Department of Public Service (“Department”) for initiating this proceeding and workshop to investigate utility regulation models in light of emerging trends in the industry. Sunrun has participated in similar important inquiries across the country from Hawaii to Rhode Island, and appreciates the opportunity to submit these comments to assist in developing the agenda for the workshop discussions.

The Department proposed the following topics for discussion at the workshops:

1. Review of regulatory practices and performance in Vermont as well as in other jurisdictions;
2. Identification of emerging industry trends and opportunities;
3. Discussion of regulatory goals, how they can be articulated and measured, and how they overlap with existing statutory criteria.

Sunrun offers the following items for review and discussion within the topics proposed by the Department.

1. Review of regulatory practices and performance in Vermont as well as in other jurisdictions

Discussion of the regulatory practices and performance other states will provide useful guidance to the Department, the Board, and stakeholders in developing the scope of this investigation and engaging in the broader look into the regulatory structure in Vermont in light of the significant changes affecting electric and natural gas utilities in



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the state. Sunrun recommends that the workshops specifically include an overview and discussions of relevant proceedings and regulatory frameworks from Vermont as well as the jurisdictions listed below.

- California
 - R.14-08-013, Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769.¹
 - California Public Utilities Commission Distributed Energy Resources Action Plan.²
- Hawaii³
 - Docket 2013-0141: Instituting a Investigation to Reexamine the Existing Decoupling Mechanisms for Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited.
 - Docket 2014-0183, Instituting a Proceeding to Review the Power Supply Improvement Plans for Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited.
 - Docket 2016-0087, Application for approval to commit funds in excess of \$2,500,000 for the Smart Grid Foundation Project, to Defer Certain Computer Software Development Costs, to Recovery the Capital and Deferred Costs, etc.
 - Docket 2014-0192, Instituting a Proceeding to Investigate Distributed Energy Resources Policies.
- New York
 - Docket 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision.⁴
 - Docket 16-M-0429, In the Matter of Earnings Adjustment Mechanism and Scorecard Reforms Supporting the Commission's Reforming the Energy Vision.⁵
 - Docket 16-M-0411, In the Matter of Distributed System Implementation Plans.⁶

¹ California Public Utilities Commission. R1408013. Available at:

https://apps.cpuc.ca.gov/apex/f?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:R1408013

² California Public Utilities Commission. Distributed Energy Resources (DER) Action Plan. Available at: <http://cpuc.ca.gov/picker/>

³ Hawaii Public Utilities Commission. Document Management System. Available at: <http://dms.puc.hawaii.gov/dms/>

⁴ New York State Department of Public Service. Case Number 14-M-0101. Available at: <http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=14-M-0101&submit=Search+by+Case+Number>

⁵ New York State Department of Public Service. Case Number 16-M-0429. Available at: <http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?Mattercaseno=16-01575>

⁶ New York State Department of Public Service. Case Number 16-M-0411. Available at: <http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?Mattercaseno=16-M-0411>



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- Rhode Island
 - Docket 4600, PUC Investigation into Changing Electric Distribution System.⁷
 - Power Sector Transformation Initiative.⁸

2. Identification of emerging industry trends and opportunities

Sunrun recommends that the workshops specifically address the following trends and opportunities:

- Integrated distribution system planning, including opportunities for distributed energy resource (“DER”) providers to present non-transmission or non-wires alternative (“NTA” or “NWA”) solutions to traditional utility grid infrastructure needs.
- Performance-based ratemaking to motivate utilities to meet and exceed renewable energy, DER, and customer service goals.
- Grid modernization plans and technologies to empower customer choice and to integrate increasing amounts of renewable energy and DERs.

The proceedings identified above can serve to inform these discussions as well. With regard to NWA opportunities, Sunrun recommends the workshop participants consider the following approaches and pilot programs:

- Connecticut
 - United Illuminating has proposed a Local Targeting DER Integration Demonstration Project, in which it will collaborate with the Connecticut Green Bank to target marketing of existing state programs and increased distributed generation (“DG”) adoption to customers near the Woodmont substation circuits.⁹ The proposal is part of a state law that requires utilities to submit proposals for grid-side system enhancements.¹⁰
- Maine
 - State law authorizes the Public Utilities Commission (“PUC”) to designate a smart-grid coordinator or NTA Coordinator in order to develop cost-

⁷ Rhode Island Public Utilities Commission and Division of Public Utilities and Carriers. Docket No. 4600. Available at: <http://www.ripuc.org/eventsactions/docket/4600page.html>

⁸ Rhode Island Public Commission and Division of Public Utilities and Carriers. Power Sector Transformation Initiative. http://www.ripuc.org/utilityinfo/electric/PST_home.html

⁹ United Illuminating. Public Act 15-5 Section 103. Proposal for Distributed Energy Resources Integration Plan. (November 4, 2016)

<http://www.dpuc.state.ct.us/DEEPenergy.nsf/c6c6d525f7cdd1168525797d0047c5bf/8525797c00471adb85258061005f1353?OpenDocument>

¹⁰ State of Connecticut. Public Act No. 15-5. Approved June 30, 2015. Available at: <https://www.cga.ct.gov/2015/act/pa/pdf/2015PA-00005-R00SB-01502SS1-PA.pdf>



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effective alternatives to transmission projects, improve overall reliability and efficiency of the electric system, reduce ratepayer costs, reduce and manage energy consumption, and reduce GHG emissions.¹¹ The Maine PUC is currently developing a process for evaluating NTAs, determining roles and responsibilities of the NTA Coordinator, and selecting an NTA Coordinator.¹²

- As a result of a stipulation agreement in a proceeding that considered the installation of new transmission lines in Maine, Central Maine Power and GridSolar agreed to collaborate to develop a pilot NWA project known as the Boothbay Smart Grid Reliability Project, which includes a battery system, diesel-fueled back-up generator, efficiency technologies, peak load shifting, and demand response units.¹³
- New Hampshire
 - A recent New Hampshire PUC Order requires utilities to develop NWA pilot programs focused on the installation of DG in lieu of utility distribution upgrades. DG projects will be selected via a competitive solicitation process overseen by a third-party consultant.¹⁴
- New York
 - The Public Service Commission (“PSC”) required IOUs to file Distributed System Implementation Plans, which include suitability criteria and a process for utilities to consider incorporate NWAs.¹⁵ Utility non-wires alternatives projects to date include ConEd’s Brooklyn Queens Demand Management program, NYSEG’s Java Substation projects, National Grid’s Baldwinsville and Old Forge projects, ConEd’s Hudson Network and Columbus Circle Network projects, and RGE’s Station 43 project.¹⁶
 - As part of the PSC’s Reforming the Energy Vision (REV) initiative, the PSC required utilities to develop a series of demonstration projects that must demonstrate innovation, customer engagement, scalability, and

¹¹ State of Maine Public Utilities Commission. Docket No. 2016-00049. Notice of Investigation (April 4, 2016). Available at: <https://mpuc-cms.maine.gov/CQM.Public.WebUI/Common/ViewDoc.aspx?DocRefId={8E9064A5-2C0B-4CD0-815C-B53412AF6DB2}&DocExt=pdf>

¹² See Maine Public Utilities Commission Docket 2016-00049.

¹³ GridSolar, LLC. 2016 Final Report: Boothbay Sub-Region Smart Grid Reliability Pilot Project. Available at: <https://mpuc-cms.maine.gov/CQM.Public.WebUI/Common/ViewDoc.aspx?DocRefId={84A29093-0310-40BA-8423-E26DF0DCE493}&DocExt=pdf>

¹⁴ State of New Hampshire Public Utilities Commission. Docket No. DE 16-576. Order No. 26,029 (June 23, 2017). Available at: http://www.puc.state.nh.us/Regulatory/Docketbk/2016/16-576/ORDERS/16-576_2017-06-23_ORDER_26029.PDF

¹⁵ New York Public Service Commission Dockets 14-M-0101 and 16-M-0411.

¹⁶ New York State Department of Public Service. Case Number 14-M-0101. Available at: <http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=14-M-0101&submit=Search+by+Case+Number>



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support of the development of competitive market-based solutions. Notable demonstration projects include ConEd's Storage on Demand and Commercial Energy Storage projects and National Grid's Demand Reduction Demonstration Project in Clifton Park and Resilience Demonstration Project in Potsdam.¹⁷

- The PSC requires IOUs to file dynamic demand response tariffs, which include incentives and programs for customers that provide load relief.¹⁸
- Rhode Island
 - Rhode Island requires National Grid to develop an annual Electric System Reliability Procurement Plan, which must include an examination of customer- and utility-sited energy resource options to improve system reliability.¹⁹
 - National Grid offers a pilot program called DemandLink designed to defer the need for a new substation feeder by targeting customers in the Tiverton and Little Compton areas with energy efficiency measures and demand response programs.²⁰

These state programs, and corresponding utility pilot projects and programs, serve as examples of regulatory frameworks that encourage utilities to identify innovative grid solutions, leverage DER and procure other lowest-cost resources to meet customer demand, and allow non-utility providers non-discriminatory access to participate in energy services markets to reduce costs, enhance grid reliability, and increase customer choice.

3. Discussion of regulatory goals, how they can be articulated and measured, and how they overlap with existing statutory criteria.

Sunrun recommends the workshops include a discussion of the following regulatory goals:

- Empowering and enabling customer choice.
- Ensuring non-discriminatory access to facilitate and seamlessly integrate DER and other clean energy technologies to the grid.

¹⁷ New York State Department of Public Service. REV – Demonstration Projects. Available at: <http://www3.dps.ny.gov/W/PSCWeb.nsf/All/B2D9D834B0D307C685257F3F006FF1D9?OpenDocument>

¹⁸ New York Public Service Commission Dockets 14-E-0423 and 15-E-0186 through 15-E-0191. Available at:

<http://www3.dps.ny.gov/W/PSCWeb.nsf/All/FCFC9542CC5BE76085257FE300543D5E?OpenDocument>

¹⁹ Rhode Island Office of Energy Resources. System Reliability Program. Available at:

<http://www.energy.ri.gov/reliability/>

²⁰ National Grid. DemandLink. Available at: <https://www.nationalgridus.com/LittleCompton-Tiverton>



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- Conducting open and transparent distribution system planning to allow competition between private market participants through non-discriminatory access to opportunities to provide grid solutions and other energy services.
- Maintaining and advancing a reliable and resilient electric grid capable of seamlessly integrating increasingly higher penetrations of DER and other clean energy technologies.
- Empowering customers and other non-utility market participants to manage power consumption, contribute to system reliability through demand management and other system services, and reduce the carbon intensity of the electric system.

Thank you for the opportunity to provide these comments. Sunrun looks forward to participating in the workshop and this proceeding.