

September 24, 2018

VIA ELECTRONIC SERVICE

Hon. Kathleen H. Burgess
Secretary of the Commission
New York State Public Service Commission
Three Empire State Plaza
Agency Building Three – 14th Floor
Albany, New York 12223-1350

Re: Case 18-E-0130 - In the Matter of Energy Storage Deployment Program

Dear Secretary Burgess:

Please find the Reply Comments of Sunrun Inc. in response to the Public Service Commission's July 17, 2018 Notice Soliciting Comments and Announcing Technical Conferences. Please contact me at 617-997-8850 or evand@sunrun.com with any questions.

Respectfully submitted,

/s/ Evan Dube

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REPLY COMMENTS OF SUNRUN INC. ON NEW YORK STATE ENERGY STORAGE ROADMAP AND STAFF RECOMMENDATIONS

Sunrun Inc. (“Sunrun”) respectfully submits the following reply comments in response to the Public Service Commission’s (“Commission”) Notice Soliciting Comments and Announcing Technical Conferences issued July 17, 2018 regarding the New York State Energy Storage Roadmap and Department of Public Service (“DPS”) / New York State Energy Research and Development Authority (“NYSERDA”) Staff Recommendations (“Roadmap”) filed in this proceeding on June 21, 2018, and comments filed on September 10, 2018.

Sunrun disagrees with the argument advanced in the *Joint Utility Initial Storage Comments* that the Market Acceleration Incentive (“MAI”) (or “Bridge Incentive”) should not prioritize customer-sited storage systems. The Joint Utilities’ comments do not account for the benefits that residential solar + storage can provide to the grid, and ignore reasons stated in the Roadmap for offering the MAI to customer-sited storage systems

Part of the reason the Joint Utilities claim that distribution and bulk system use cases provide greater benefits than customer-sited deployments may stem from their stated view that “customer-sited applications...in unconstrained networks generally benefit only the installing customer,” not other utility customers. Sunrun disputes this statement because it does not accurately reflect the myriad benefits that residential solar + storage systems can provide to all utility customers. For example, residential solar + storage aggregations can help avoid grid infrastructure investments and provide load management and system relief, reducing costs for customers while advancing New York’s clean energy goals. This is particularly true in constrained areas experiencing load growth. Joint Utility member Consolidated Edison Company has leveraged these capabilities to deliver ratepayer benefits through its Brooklyn/Queens Demand Management (“BQDM”) Program. This program includes, among other tools, the use of distributed and customer-sited energy storage to achieve load relief and address reliability needs in the Brooklyn/Queens area.¹ The use of customer-sited energy storage in the BQDM program has contributed to the successful deferral of the Glendale Project (a traditional infrastructure

¹ Consolidated Edison Company, BQDM Quarterly Expenditures & Program Report - Q1 2018 (May 30, 2018) available at <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={26094758-11F9-48AE-A6C6-5836916493BF}>.

project estimated to cost ratepayers \$305 million),² below the originally proposed budget³ – as of the end of Q1 2018, expenditures have totaled only \$70.88 million.⁴

PSEG Long Island (“PSEG LI”) also recognized the benefits of residential solar + storage in its Utility 2.0 Long Range Plan by including an “Advanced Storage: Behind-the-Meter Energy Storage with Solar” program. PSEG LI’s proposal specifically references the grid benefits that behind-the-meter solar + storage can provide, including Avoided Generation Capacity Cost, Avoided Transmission Capacity Cost and Avoided Distribution Capacity Cost, which is identified as the largest benefit.⁵ Notably, PSEG LI conducted a benefit-cost analysis test for the program in accordance with New York Department of Public Service standards and found a benefit-to-cost ratio of 1.29.⁶

There are other unique advantages that only customer-sited storage systems provide. Perhaps the most obvious in the wake of recent extreme weather events is the value of resiliency in the form of a distributed network of clean backup power generators. In the event of a prolonged outage, residents with solar + storage systems can open their homes to their neighbors for essential services, like cooking meals or charging cell phones. Apart from resiliency, another advantage of customer-sited storage is the flexibility it provides when projected load growth is uncertain, because such systems can be added incrementally, as needed. Smaller systems also experience faster permitting, construction, and interconnection timelines, and can be deployed more quickly than larger projects, which sometimes face local opposition associated with new transmission and distribution construction. Providing customers an opportunity to participate in an innovative program (like PSEG LI’s) is likely to be more appealing to communities and provide broader ratepayer benefits.

² New York Public Service Commission, Order Extending Brooklyn/Queens Demand Management Program at.3 (July 13, 2017) *available at*

³ Consolidated Edison Company, Petition for Extension of Time to Implement Brooklyn Queens Demand Management Program at p.2 (Jan. 19, 2017) *available at* <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={06BD5607-88E6-4786-8340-FB90F2465EC7}>.

⁴ Consolidated Edison Company, BQDM Quarterly Expenditures & Program Report - Q1 2018 (May 30, 2018) *available at* <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={26094758-11F9-48AE-A6C6-5836916493BF}>.

⁵ PSEG LI Utility 2.0 Long Range Plan 2018 Annual Update at p. 103 (June 29, 2018) *available at* <https://www.lipower.org/wp-content/uploads/2018/06/2018-06-29-PSEG-LI-Utility-2.0-2018-Annual-Update.pdf>.

⁶ *Id.*

Customer-sited energy storage also empowers ratepayers to manage and reduce their electricity bills, especially when used in combination with on-site solar. When customers with solar + storage systems are able to enroll in time-varying rate options, customers utilizing such systems can manage their electricity consumption and grid exports in a way that not only reduces their electricity bills, but also reduces system peaks to the benefit of all ratepayers (by avoiding and deferring capital investments).⁷ In addition, engaging directly with customers and educating them about the technology and its value can facilitate additional customer actions and investments that will advance New York’s clean energy goals. For example, once a customer decides to adopt a 10-year solar and/or storage solution, adding a connected thermostat, conducting online energy audits, engaging in load shifting, or adopting other NYSERDA or utility offerings that provide grid benefits is a simple add-on to the process.

The Joint Utilities also focus narrowly on the alleged costs and benefits of customer-sited use cases vs. distribution and bulk system use cases. The Joint Utilities state that investments in the latter two use cases “will produce significantly higher overall benefits for all customers than customer-sited deployments.” This statement reflects a misunderstanding of the fundamental reasons for offering a Bridge Incentive to energy storage systems, which are not only to provide the greatest benefit at the least cost today, but also to reduce the soft costs of a nascent industry, to increase the market learning mechanisms for customers and system operators, and to provide greater benefits over the long-term by accelerating the emergence of a self-sustaining energy storage market in New York State.⁸

The Roadmap appropriately recommends that providing the MAI to customer-sited systems is necessary to accelerate soft cost reductions, support the emergence of a self-sustaining energy storage market, and help New York accomplish its target to install 1,500 megawatts (MW) of energy storage by 2025.⁹ Staff estimates that a Bridge Incentive for customer-sited

⁷ In order for customer-sited energy storage to provide grid benefits to all ratepayers, rates must be properly designed to encourage customers to shift usage patterns and grid exports from energy storage systems. Time-of-use rates and bring-your-own-device demand response programs are both examples of program designs that can be utilized to encourage such customer behavior. See, e.g., Comments of Sunrun Inc. on New York State Energy Storage Roadmap and Staff Recommendations (Sept. 10, 2018).

⁸ Roadmap at 48-49.

⁹ See Roadmap at 48-49; “Governor Cuomo Unveils 20th Proposal of 2018 State of the State: New York’s Clean Energy Jobs and Climate Agenda” (Jan 2, 2018) *available at* <https://www.governor.ny.gov/news/governor-cuomo-unveils-20th-proposal-2018-state-state-new-yorks-clean-energy-jobs-and-climate>.

systems will reduce soft costs by up to \$150 per kWh by 2025, accelerate the cost decline curve by almost two years, and help save \$200 million from the projected cost of deploying 1,500 MW of energy storage by 2025.¹⁰

The policies that helped drive the success of New York’s residential solar market offer additional support for including residential storage within the MAI. Had policymakers considered only the narrow criteria implied by the Joint Utilities’ recommendations when creating the NY-Sun program in 2012, those incentives may have been limited to only utility-scale solar arrays, and New York’s residential solar industry certainly would not be where it is today – contributing significantly to the state’s 9,000+ solar workforce,¹¹ expanding consumer choice, providing consumers new tools to generate clean energy and control their electricity bills, and opening new market participation pathways for these resources to provide grid services and benefits for all ratepayers. The goals of NY-Sun extend beyond maximizing net benefits at any particular point in time; indeed, they are much broader and include supporting the development of a robust and sustainable residential solar market through expanding customer-sited PV installations,¹² encouraging direct citizen participation, reducing soft costs, encouraging installations in locations that provide grid benefits, reducing peak demand, encouraging strategic load reduction, strengthening the clean energy economy and creating jobs, and building a self-sustaining residential solar market¹³ (which NY-Sun has achieved on Long Island).¹⁴ These same goals – and the success of creating a self-sustaining residential solar market in parts of New York State – are strong justification for the inclusion of customer-sited storage systems within the MAI program. Following the Joint Utilities recommendations would significantly hinder the development of the residential storage market and thereby forego or significantly reduce the numerous grid and ratepayer benefits that a robust residential storage market can provide.

¹⁰ Roadmap at 49.

¹¹ Solar Energy Industries Association. New York Solar, *available at* <https://www.seia.org/state-solar-policy/new-york-solar>.

¹² Governor Andrew M. Cuomo. “Building a New NY...with you: 2012 State of the State Address” at pp. 13-14 (Jan. 4, 2012) *available at* <https://www.ny.gov/sites/ny.gov/files/atoms/files/Building-a-New-New-York-Book.pdf>.

¹³ New York Public Service Commission, Case 03-E-0188, Order Authorizing Customer-Sited Tier Program through 2015 and Resolving Geographic Balance and Other Issues Pertaining to the RPS Program at pp. 4, 7-8 (Apr. 2, 2010) *available at* <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={C05CD0D6-8EA5-4CB9-A9FA-6ADD3AECB739}>.

¹⁴ New York State Energy Research and Development Authority, “ Significant growth in the Long Island residential solar market achieves NY-Sun target to create self-sustaining solar industry, eliminate the need for public incentives” (Apr. 19, 2016) *available at* <https://www.nyserda.ny.gov/About/Newsroom/2016-Announcements/2016-04-19-Significant-growth-in-the-Long-Island-residential-solar-market>.

It is often said colloquially that the residential storage industry today is where the residential solar industry was a decade ago. In order for the residential storage industry to achieve the success of the residential solar industry, the residential storage industry will require comparably supportive policy. Sunrun strongly recommends the Commission adopt a Bridge Incentive as a component of NYSERDA's NY-Sun program to incentivize residential customer-sited energy storage installations and accelerate the adoption of these beneficial resources.

Sunrun appreciates the opportunity to submit these reply comments for the Commission's consideration.

Respectfully submitted,

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