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November 7, 2018

Kathleen H. Burgess
Secretary
New York Public Service Commission
Three Empire State Plaza
Albany, New York 12223

Re: UIU Reply Comments on the Energy Storage Roadmap

Case 18-E-0130 – *In the Matter of Energy Storage Deployment Program.*

Dear Secretary Burgess:

The Utility Intervention Unit (UIU) of the New York State Department of State's Division of Consumer Protection submits these comments in response to the Notice[1] seeking comments on the Department of Public Service Staff's (Staff) and the New York State Energy Research and Development Authority's (NYSERDA) Energy Storage Roadmap (ESR or Roadmap) filed on June 21, 2018 in the above captioned proceeding.[2]

The ESR "recommends a range of policy, regulatory, and programmatic actions for consideration and implementation in the near-to-medium term (2019-2025)."[3] The ESR recommendations fall into eight general categories: (1) retail rate actions and utility programs; (2) investor-owned utility roles; (3) direct procurement approaches through utility Non-Wire Alternatives (NWAs), NYSERDA's Renewable Energy Certificates (RECs), and NYS "Leading by Example" procurement initiatives; (4) Market Acceleration Incentive (MAI); (5) address soft costs including barriers in data and finance; (6) "clean peak" actions; (7) wholesale market actions; and (8) distribution/wholesale market coordination.[4] UIU's comments respond to concerns and proposals raised by several parties in their initial comments on the Roadmap.[5] The ESR recommendations overlap

[1] *See* Case 18-E-0130, *In the Matter of Energy Storage Deployment Program*, Notice Soliciting Comments and Announcing Technical Conferences (issued July 17, 2018).
[2] *See* Case 18-E-0130, *supra*, New York State Energy Storage Roadmap (filed June 21, 2018) ("Roadmap").
[3] Roadmap at 11.
[4] Roadmap at 12.
[5] UIU's silence on any particular proposal or recommendation should not be construed as agreement.

with a number of Public Service Commission (Commission) orders and proceedings. Therefore, UIU recommends that, the Commission consider the Roadmap proposals in the context of the related state initiatives with a particular focus on ensuring that (1) Advanced Metering Infrastructure (AMI) deployment costs are appropriately reflected in the benefit cost analysis (BCA); (2) customer data privacy is maintained; and (3) any new Earnings Adjustment Mechanisms (EAM) are not duplicative of current utility EAMs.

1. The Method of Accounting for Advanced Meter Infrastructure Deployment in the Benefit Cost Analysis is Unclear.

UIU shares Multiple Intervenors concern that the Roadmap proposals not be evaluated in isolation.[6] In one of its eight categories, the Roadmap recommends that retail delivery rates and dynamic load management programs be improved to reduce financing barriers by sending a more accurate price signal.[7] Additionally, embedded in the report, a path forward suggests that "all utilities should expedite their [Advanced Metering Infrastructure] deployments…"[8] These recommendations were developed using primarily a breakeven installed cost of storage (BICOS) analysis of various use cases.[9] The Roadmap also included a Resource Cost-Style Lifetime Benefit Cost Analysis (Storage BCA) that calculated the energy storage net benefits of 1,500 MW in 2025 and 2,795 MW in 2030 to be approximately $500 million and $1,200 million, respectively.[10] Both the BICOS case studies and the Storage BCA analysis relied on peak load reduction (*i.e.,* capacity savings) and distribution savings in its calculations.[11]

UIU is concerned that the Roadmap estimates did not account for the peak load savings and distribution savings expected from the AMI systems currently being installed in the Con Edison and Orange and Rockland service areas. For example, Con Edison's AMI business plan estimated an average energy savings of 1.5% from Conservation Voltage Optimization.[12] The Storage BCA assumed that 58% of the storage (877 MW) in 2025 would be in New York City (*i.e.,* Zone J).[13] If the peak load reductions expected from the Con Edison AMI deployment was not accounted for in the Storage BCA, then the Roadmap BICOS case studies and Storage BCA may be overestimating the benefits.

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[6] *See* Case 18-E-0130, *supra*, Initial Comments of Multiple Intervenors p. 9 (filed September 10, 2018).
[7] *See* Roadmap at p. 12.
[8] *See id*. at p. 62.
[9] *See id*. at p. 8 ("The upfront **breakeven installed cost of storage (BICOS)** is the primary analytical metric used in this Roadmap. BICOS indicates what the total upfront cost of storage must be for a project to be economically feasible, defined as the project benefits or values exactly equaling all costs to install, commission, finance and provide a return on the project over its life.").
[10] *See id*. at Appendix K.
[11] The BICOS distribution savings were used in the Value of Distributed Energy Resources and Non-Wire Alternative BICOS use cases.
[12] *See* Case 15-E-0050 *et al*, Consolidated Edison Advanced Metering Infrastructure Business Plan p. 12 (filed November 16, 2015).
[13] Roadmap at Appendix K, page 12.

Therefore, UIU requests that the Commission confirm that the Roadmap analysis accounted for the AMI systems currently being installed. If it has not, then UIU requests that the Roadmap analysis be updated prior to the Commission issuing a decision.

Furthermore, UIU is concerned that the recommendation that AMI deployments be expedited is premature because the Commission should evaluate any AMI proposal based on the economic benefit to consumers in that utility service territory. AMI should not be pursued for the sake of increasing access to customer data to support battery storage or for any other Distributed Energy Resources (DER) business model. Additionally, if the Commission approves the Roadmap proposal prior to those utilities proposing new AMI systems then those AMI proposals should reflect the peak load reductions expected from the energy storage installations. Alternatively, if those AMI systems are approved prior to the Roadmap proposal, then the Roadmap analysis should account for the peak and energy savings from those AMI systems.

2. Customer Data Privacy Must Be Maintained.

An additional part of the ESR that should not be evaluated in insolation is the Roadmap's proposal that NYSERDA and Staff lead coordination efforts with the utilities to solicit a third-party to develop, implement, and maintain a searchable data platform containing customer-related data. UIU agrees with the Joint Utilities that developing such a platform may not be necessary at this time, given the various customer data tools already under development.[14] However, if such a proposal does move forward, UIU agrees with the Joint Utilities that the Commission should evaluate recommendations regarding access to customer data within the context of all DERs, not just storage resources.[15] The Roadmap's proposal to develop a third-party data platform, raises a host of potential customer protection issues such as: (1) how to educate consumers on the platform and help them decide if they feel comfortable opting-in; and (2) how to determine the scope of customer-related data that can be available on the platform. These issues must be considered in context of the Commission's ongoing proceedings which have considered and weighed the balance between making anonymized, energy data available and maintaining strong customer privacy standards.[16]

[14] *See* Joint Utilities Initial Comments at p. 28 (noting that "(e)ach of the utilities also offers the Green Button Download My Data tool that allows customers to download their usage data, at which point customers have the ability to share that information with third parties. NYSERDA's Utility Energy Registry ("UER"), a statewide, publicly-available database for aggregated customer data, is currently being populated with utility customer data by each of the Joint Utilities. The UER will provide third-party access for up to 30 months of customer data aggregated at the municipal or zip code level") (citations omitted).
[15] *See* Joint Utilities Initial Comments at p. 30.
[16] *See e.g.*, Case 17-M-0315 *et al.*, Order Adopting Utility Energy Registry p. 24 (issued April 20, 2018). (Commission Order which determined that "(i)n balancing the benefits of making more anonymized, aggregated energy data available while maintaining customer privacy, the Commission will not modify the existing 15/15 standard as applied to the Residential grouping in light of the low failure rates (roughly 4-7% of trialed tax districts) for the Residential grouping.").

3. The Structure of the Load Factor EAM Must Be Further Explored Within the Context of the System Efficiency EAMs Already Adopted.

The ESR includes a proposal for a utility load factor improvement EAM that must be further explored before it is acted on by the Commission. The Roadmap suggests "a new EAM for each utility that incentivizes the improvement of the distribution-system-wide load factor, calculated by percentage improvement in load factor."[17] Load factor is defined as the ratio of peak to off-peak energy use.[18] The Staff proposal claims that "storage is uniquely qualified to improve load factor, as it increases off-peak load and decreases peak load, and can make the most significant improvement to load factor per unit of any technology." UIU observes that the ability of a storage resource to reduce peak load and increase off-peak load would depend on the timing of the resource's charging and injecting of energy to the utility system. UIU appreciates that the Staff proposal includes protections to "mitigate what could become a reverse incentive to simply increase off-peak load to improve load factor…"[19] However, as the City of New York observed, there is potential for the proposed load factor improvement EAM to be duplicative of incentives already established in various utility service territories.[20]

Specifically, the Commission's May 19, 2016 Order, which offered general guidelines for the scope and structure of potential EAMs, adopted "a system efficiency EAM oriented toward both peak reduction and load factor improvement."[21] Several utilities have since adopted similar types of system efficiency EAMs including a Peak Reduction EAM and a DER Utilization EAM that both incentivize utilities to expand the use of numerous DER technologies, including storage.[22] One such utility, Niagara Mohawk, has noted in its EAM quarterly report, that it is working to increase interconnection of storage resources to reduce its New York Control Area (NYCA) coincident peak and achieve the Peak Reduction EAM metric.[23] This utility may also count incremental installation of stand-

[17] Roadmap. at 39-40
[18] *Id*. at 40.
[19] *See id*. at 40 (suggesting that "the EAM could mandate that a peak-reducing technology be deployed for this solution and off-peak energy usage may not increase more than a defined percent for every percentage of load factor improvement, thereby guaranteeing peak reductions and grid value.").
[20] *See* Case 18-E-0130, Initial Comments of City of New York in Response to Energy Storage Roadmap pp. 12-13 (filed September 10, 2018).
[21] *See* Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, Order Adopting a Ratemaking and Utility Revenue Model Policy Framework p. 73 (issued May 16, 2016).
[22] *See e.g*., Cases 17-E-0238 and 17-G-0239, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation D/B/A National Grid for Electric Service,* Joint Proposal at Appendix 7 p. 7 (filed January 19, 2018).
[23] *See* Cases 17-E-0238 and 17-G-0239, *supra*, Earnings Adjustment Mechanisms Calendar Year 2018 First Quarter Report p. 1 (filed May 30, 2018).

alone storage resources towards its DER Utilization EAM target.[24] Additionally, both Con Edison and Central Hudson count incremental installation of storage resources towards the targets established in their DER Utilization EAMs.[25] If any of these three utilities were also able to establish a "Load Factor Reduction" metric, focused on incremental installment of storage resources to increase its system-wide load factor, ratepayers could be paying a duplicative incentive to utility shareholders that is in great excess of the net benefits provided by these resources. Further, to the extent that utilities are approved for storage focused Non-Wire Alternative (NWA) projects or pilot programs, the incremental megawatt hours of energy storage installed due to these projects should not be counted towards EAM targets as the utility is likely approved for cost recovery for these projects and it should not be counted towards an EAM.[26]

Additionally, the Joint Utilities have indicated that an increase in system-wide load factor may not directly translate into distribution system benefits.[27] The Joint Utilities reason that while an increased system load factor may reduce wholesale capacity costs, since areas of the distribution system peak at different times it may not directly translate to distribution system benefits.[28] Thus, there is a chance that the EAM as proposed may not provide enough net benefits to warrant an incentive. However, the Joint Utilities' proposal to instead develop EAMs that "target the use of DER to address local needs such as improved utilization of specific equipment…"[29] did not provide enough information regarding the net benefits provided to ratepayers to determine if this is a viable EAM. Further, UIU recommends that the Commission reject the Joint Utilities' proposal to allow utilities to propose EAMs outside a utility rate case.[30] Utility rate cases are the proper venue for holistic consideration of EAM proposals since parties can consider EAM

[24] *See supra* note 20 ("The DER Utilization EAM metric incentivizes Niagara Mohawk to work with third parties to expand the use of DER resources in the Company's service territory. This metric will measure the sum of the annualized megawatt hours ("MWh") from incremental DER in Niagara Mohawk's service territory, including solar, combined heat and power, stand alone storage resources, and fuel cells.").
[25] *See* Case 16-E-0060 *et al*, 2017 Outcome-based EAM Collaborative Report p. 7 (filed August 23, 2017) (Con Edison's EAM includes thermal and battery storage). *See also* Cases 17-E-0459 *et al*, Joint Proposal p. 67 (filed April 18, 2018) (Central Hudson's EAM includes standalone and behind the meter electric energy storage resources).
[26] *See e.g*., Case 16-E-0060 *et al*, 2017 Outcome-based EAM Collaborative Report p. 5 footnote 12 (filed August 23, 2017) (noting that the community solar photovoltaics (PV) minimum, target, and maximum levels for the DER Utilization EAM will be increased ex-post by the MWh associated with the Con Edison shared solar pilot. Essentially, the utility is netting out the solar interconnections performed due to the pilot from its EAM targets.).
[27] *See* Joint Utilities Initial Comments at 15.
[28] *See id*. (noting that "actions to increase system-wide load factor could actually serve to reduce local load factors on the distribution system. A report prepared for the Joint Utilities by The Brattle Group in 2017 illustrated this point and also found that the volatility of system loads over time would make it difficult to determine the extent to which DER contributed to any improvement in the system-load factor."). UIU observes that this report did not appear to consider storage resources as a DER in it is analysis. *See* Brattle Group, Assessment of Load Factor as a System Efficiency Earning Adjustment Mechanism p. 4 (filed February 10, 2017).
[29] *See* Joint Utilities Initial Comments at 16.
[30] *See id*.

proposals in light of the total revenue requirement, proposed rate of return, and related utility programs.

Conclusion

UIU appreciates this opportunity to comment and urges the Commission to adopt the recommendations herein when reviewing the Energy Storage Roadmap.

Respectfully submitted,

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