October 9, 2018

VIA ELECTRONIC FILING

Hon. Kathleen H. Burgess  
Secretary to the Commission  
New York State Public Service Commission  
Empire State Plaza, Agency Building 3  
Albany, New York  12223-1350

Re:  Case 18-E-0018 – In the Matter of Proposed Amendments to the New York State Standardized Interconnection Requirements (SIR) for Small Distributed Generators  
Case 15-E-0751 – In the Matter of the Value of Distributed Energy Resources

Dear Secretary Burgess:

The Advanced Energy Economy Institute (AEEI) on behalf of Advanced Energy Economy (AEE) and their respective stakeholder companies, submit for filing these comments on the Proposed Model Tariff for Compensation of Hybrid Energy Storage and Distributed Generation Systems, filed by the Joint Utilities on June 19th 2018 in the above-referenced proceedings.

Respectfully Submitted,

Ryan Katofsky  
Vice President, Industry Analysis
Comments on Joint Utilities Model Tariff for Compensation of Hybrid Energy Storage Systems
(Case 18-E-0018)

Advanced Energy Economy Institute

Preface

In order to respond to the Joint Utilities’ June 19, 2018, Proposed Model Tariff for Compensation of Hybrid Energy Storage and Distributed Generation Systems (“Model Tariff”), Advanced Energy Economy Institute (AEE Institute) is working with Advanced Energy Economy (AEE) respective stakeholder companies to craft the comments below. These organizations and companies are referred to collectively in these comments as the “advanced energy community,” “advanced energy companies,” “we,” or “our.”

Introduction

The Advanced Energy Companies support the Commission’s efforts to improve rate design to better realize the value of Hybrid Energy Storage Systems (Hybrid-ESS) that combine energy storage and clean energy generation. Hybrid-ESS is critical to increasing the amount of renewables in New York State while simultaneously improving the flexibility and reliability of the grid and increasing the technical potential of the grid to integrate an even higher penetration of renewables. NYS has affirmed its commitment to these goals through the establishment of the Clean Energy Standard and the recent storage target.

The Commission in its April 19 Order Modifying Standardized Interconnection Requirements called for the Joint Utilities to submit a model tariff for Hybrid-ESS to effectuate the requirements set out in the Phase One Order.1 The Advanced Energy Companies have a number of concerns relating to provision 2.c of the Joint Utilities’ Model Tariff. The Model Tariff deviates from previously established commission policy in several ways and would hinder the deployment of Hybrid-ESS by unreasonably altering elements of the value stack available to Hybrid-ESS that is capable of charging from both on-site clean generation

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and grid power. In these comments, we request that the Commission reaffirm its previous policies and order changes to the Model Tariff to bring it in compliance with these policies.

**Concerns with Provision 2.c**

The effect of provision 2.c is to reduce total hourly injections from the Hybrid-ESS by injections provided specifically by the ESS and credit these ESS injections under a separate, limited value stack. This treats the injections from a clean generator and the ESS separately, with injections from the clean generator receiving the full E Value and the capacity alternative selected at interconnection while injections from the ESS receive no E Value and receive capacity credit under Alternative 3 only. While some distinction is required between injections from the generator and injections from the ESS to accurately apply the E Value to only injections from the storage that originate from the clean generator, the method in the Model Tariff is overly broad to the point that it does not account for the E Value at all from ESS injections. Instead, it provides no credit, contrary to the provisions of the Phase One Order. Also, it runs counter to Commission policy by restricting a portion of the injections from a NEM-eligible, intermittent Hybrid-ESS system to only capacity Alternative 3 rather than allowing for the option of selecting any of the three alternatives allowed for intermittent technologies in the Phase One Order.

**Availability of Capacity Alternatives for Hybrid-ESS**

The Phase One Order distinguishes only between intermittent and dispatchable technologies in assigning eligibility for the three capacity alternatives. Intermittent technologies are eligible for any of the three capacity alternatives while dispatchable technologies are limited to Alternative 3. Hybrid-ESS, particularly at the distribution scale that is the focus here, remains an intermittent technology. Only a portion of the name plate capacity of a Hybrid-ESS is associated with the storage, and most often, a minority portion of the name plate capacity is attributable to storage. Leveraging the storage allows Hybrid-ESS to modify its production profile at the margin, but it does not allow it to shift generation completely. For this reason, Hybrid-ESS remains intermittent and therefore should be eligible for all capacity alternatives. The Model Tariff would impose a new requirement on Hybrid-ESS—the required use of capacity Alternative 3—that was not included in the Phase One Order.

In the minority of circumstances when there is a large storage system relative to the clean generation capacity of the Hybrid-ESS, the system would be more dispatchable and would be more likely to choose

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2 As described in Phase One Order, p. 103  
3 Phase One Order, p. 48-49  
4 Phase One Order, p. 102-103
capacity Alternative 3. However, in most cases where the storage is relatively small, requiring system output to be compensated via Alternative 3 would place capacity revenues at too much risk since the system would largely remain non-dispatchable. System owners in these cases would likely forgo investing in storage or configure the ESS to avoid charging from the grid at all, leaving potential benefits to the system unrealized. To avoid this and also the complexity associated with applying different capacity alternatives to the injections from the clean generator and ESS, we recommend that all injections originating from the combined Hybrid-ESS, whether they can be identified as originating from the generator or the ESS, should be credited at the single capacity alternative chosen for the system at interconnection.

**Assigning E Value to Clean Discharges from ESS**

We are also concerned that the Model Tariff’s assignment of a zero E Value to the energy discharged from ESS will undervalue the clean energy that is used to charge the storage. Due to the requirements of the Investment Tax Credit, 75% of the energy that charges storage must come from an ITC eligible source, such as solar. The Model Tariff, however, would treat the discharge from the storage as if all of it had originated from the grid. The Model Tariff in this regard departs from Commission policy on the value of DER and on providing compensation for the avoidance of carbon.

In the Phase One Order, the Commission rejected a different proposal over the concern that it would have the effect of undervaluing the environmental benefits provided by clean generation:5

While Staff’s proposal limited the environmental and MTC compensation for energy storage to net monthly injections to avoid appropriately providing compensation for those elements for non-green energy stored and then discharged, we recognize that such restrictions may not be reflective of expected storage installation configurations. Because of current federal tax credit rules, most energy storage systems are only charged with renewable power, and therefore the net monthly injection restriction may be unnecessary. Furthermore, the restriction could result in customers with significant usage, clean generation, and energy storage behind a single meter receiving compensation for less environmental value than they actually provide.

Just as the Commission decided against this monthly netting proposal over the concern that it would undervalue clean energy, we recommend that it also reject the provision in 2.c that provides zero environmental compensation for clean energy discharged from ESS.

We do, however, share the Commission’s concern that non-clean energy should not be credited with the E Value. Using the meter data from the three-meter configuration required under this model tariff, it is possible to accurately track the amount of clean and non-clean energy discharged from a storage system. The comments of Borrego Solar outline such a method they call “Electron Tagging.” Using this method

5 Phase One Order, p.48-49
would fulfill the Commission’s dual concerns of adequately compensating clean generation for the environmental value it provides while ensuring that non-clean energy imported from the grid and re-injected does not receive the environmental credit. We recommend that the Commission adopt the system of Electron Tagging described in Borrego Solar’s comments.

In the alternative, if the Commission determines that Electron Tagging is too administratively burdensome or that more time is needed to develop a different method of accounting, the Commission should credit all of the energy discharged from a Hybrid-ESS system with the E Value. As was previously mentioned, ITC requirements set a minimum threshold that storage must be charged with energy from an ITC-eligible source 75% of the time. This means that, at a minimum, 75% of the energy discharged from a Hybrid-ESS should be credited with E value. Given the Model Tariff’s alternative of providing zero compensation for clean energy, crediting all of the energy discharged from a Hybrid-ESS with the E value would be more accurate and better support the state’s goal of encouraging clean generation.

**Conclusion**

We remain fully supportive of the Commission’s efforts to accurately account for the value of DER and to expand the use of clean energy to meet the state’s important carbon reduction goals. We believe that the above modifications to the Model Tariff are in keeping with the state’s goals and priorities, and we recommend that the Commission adopt them.