



June 10, 2016

Via Electronic Filing

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

**RE: In the Matter of the Value of Distributed Energy Resources (Case 15-E-0751)**

Dear Secretary Burgess,

Please find the reply comments of The Alliance for Solar Choice in response to the Commission's *Notice Soliciting Comments and Proposals on an Interim Successor to Net Energy Metering and of a Preliminary Conference*.

Respectfully submitted,

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On Behalf of The Alliance for Solar Choice

**In the Matter of the Value of Distributed Energy Resources  
Case 15-E-0751**

**Reply Comments of The Alliance for Solar Choice**

**I. Introduction and Summary**

The Alliance for Solar Choice (TASC) greatly appreciates the opportunity to submit these reply comments regarding the future of Net Metering and an interim mechanism to compensate Distributed Energy Resources (DER) for system and societal benefits.<sup>1</sup> TASC limits our responses to a subset of the issues under discussion in this proceeding, and we focus our reply on select mechanisms for residential and small commercial customers that can bridge the period between today and the time when a full, transparent, and precise DER valuation methodology is established. We look forward to discussing the remaining issues during the upcoming collaborative process.

As further discussed below, TASC urges the Commission to adopt an interim regulation that maintains net energy metering (NEM) for residential and small commercial customers (mass-market customers) under existing rules. NEM continues to be a practical solution, especially given the current status of mass-market customer metering, utility data management and billing systems, and benefit/cost measurement protocols. We also urge the Commission to provide certainty for existing customers and investors and reaffirm previously stated positions that customers who invested in photovoltaic (PV) systems will continue to be governed by the NEM policy in place at the time of interconnection for the expected life of the systems, and that those rights are transferable to subsequent owners of such systems.

TASC writes in support of the Commission taking interim steps to complement NEM with optional time of use (TOU) rates that provide price signals to customers, encouraging them to deploy and operate DERs to maximize overall benefits. And we discuss how an optional Smart Home Rate (SHR) could appropriately be structured to encourage efficient and effective ratepayer engagement with the grid.

Lastly, we identify some longer-term steps for the Commission to consider after the interim period has concluded. We look forward to working with the Department of Public Service and the New York Public Service Commission in this proceeding.

**II. Overview of Interim Mechanisms for Mass Market Customers**

TASC urges the Commission to adopt an interim regulation that maintains NEM for mass-market customers under existing rules. NEM continues to be a practical

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<sup>1</sup> *Notice Soliciting Comments And Proposals On An Interim Successor To Net Energy Metering* (Issued December 23, 2015), CASE 15-E-0751 - In the Matter of the Value of Distributed Energy Resources.

solution, especially given the current status of mass-market customer metering, utility data management and billing systems, and benefit/cost measurement protocols. TASC also supports introducing optional offerings for existing NEM customers, such as re-envisioned TOU rates and a SHR rate, as further discussed below.

#### **A. Maintaining existing NEM policies in the short term**

NEM is working and there is no reason to change it right now. We reiterate our earlier comments that fully addressed the recent E3 report and how, even with undervaluing existing and future benefits of NEM systems, it concluded that “[i]n some cases the non-financial societal benefits of NEM systems, i.e., [greenhouse gas] mitigation and improved air quality, when added to the financial benefits, may be greater than the direct financial costs of NEM.”<sup>2</sup> Overall the study suggested three conclusions: (1) that the NEM policy is having its intended effect to stimulate markets for distributed renewable generation, lower PV installed costs, and achieve a variety of state environmental and energy system objectives; (2) that there is no reason to modify the bill crediting mechanism, since there is no evidence that DG system owners are currently being overcompensated; and (3) as described further in our earlier comments, bill impacts on non-participants are, at worst, *de minimis*, and in the future will produce net positive bill impacts for non-participants.

We similarly reiterate our earlier comments describing how the retail rate is a just and reasonable measure of the system and societal benefits associated with behind-the-meter renewable generation.<sup>3</sup> Retail rate compensation does not require complex and expensive changes in metering and billing equipment. This mechanism has effectively driven customer investment in renewable distributed generation (DG) for many years, because it is easy for customers to understand, and provides relatively stable financial incentives for customer-sited generation investment. NEM continues to be a practical solution, especially given the current status of mass-market customer metering, utility data management and billing systems, and benefit/cost measurement protocols.

In its proposal, although the Solar Progress Partnership (SPP) admits “there is value in retaining NEM as a simple-to-understand tool for customers” and “this approach will likely achieve higher mass market customer adoption of DER during the transition, and in the long-term,” it later proposes that retail NEM for onsite systems should sunset in 2020 at which time onsite DER customers would move to an LMP+D+E based compensation mechanism.<sup>4</sup> We acknowledge that continuing NEM under existing policies is only an interim measure; however, we disagree with the proposed 2020 sunset date. This date is unsupported and any transition date for mass-market customers from existing NEM policies to LMP+D+E based compensation should be identified as part of the collaborative process.

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<sup>2</sup> TASC Comments at 4 (citing E3 NEM Benefit-Cost Study at 8, 71).

<sup>3</sup> TASC Comments at 3-6 (citations omitted).

<sup>4</sup> SPP Proposal at 8-9, 15.

In their proposal, the Joint Utilities allege that New York’s current NEM policy results in a significant cost shift from solar to non-solar customers, and NEM significantly overcompensates DERs for the benefits provided.<sup>5</sup> Yet, the Joint Utilities fail to offer any evidence supporting this assertion, and we note that the New York State Energy Research and Development Authority study arrived at a different conclusion.

### **A. Respecting contractual and financial expectations**

We reiterate our earlier comments urging the Commission to provide certainty for existing customers and investors and reaffirm its previously-stated position that customers who invested in PV systems will continue to be governed by the NEM policy in place at the time of initial interconnection application for the expected life of the systems, and that those rights are transferable to subsequent owners of such systems. A number of other parties have similarly agreed that the Commission should not undermine retail rate net metering for existing customers.<sup>6</sup>

Customers who have invested in DERs based on existing policies should be afforded reasonable expectations regarding the savings offered by DERs. Maintaining this certainty will continue to foster customer investment in DERs, industry, and investor confidence. Even the Edison Electric Institute and the National Association of Regulatory Utility Commissioners have recently acknowledged that “[t]ypically, significant changes to the DG rate and/or the NEM policy have been accompanied by a grandfathering rule that allows existing customer-generators to continue to be billed under the old pricing policy.”<sup>7</sup>

### **B. Time of Use Rates**

NEM coupled with default residential tariffs is a proven, simple, and effective approach to enabling residential solar investments that balance costs and benefits for all ratepayers. It is also an approach that can be built upon to deliver greater overall benefits. Flat retail rates fail to send any price signal regarding the timing of exports to customers with DER. As a result, flat rates do not create an incentive for customers to deploy and operate DERs to maximize overall benefits. Well-designed TOU rates can.

Although New York utilities offer TOU rates today and NEM customers currently have the opportunity to participate in those rate schedules, overall adoption is low. There are likely a number of reasons for this, ranging from rate design limitations to insufficient consumer education. This proceeding presents an opportunity to revisit existing TOU rates and TASC looks forward to providing our proven experience using and developing cost-based TOU rates that complement distributed solar. TASC members would also

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<sup>5</sup> Joint Utilities’ Comments at 4.

<sup>6</sup> See Acadia Center Comments at 5, AEEI comments at 9, CCSA Comments at 9, NYSEA Comments at 3, TASC Comments at 3, and EFCA Comments at 7.

<sup>7</sup> Edison Electric institute, *1.0 A Primer on Rate Design for Residential Distributed Generation*, February 2016, page 13.

welcome the opportunity to partner with utilities as part of a smart home demonstration project, and to develop and pilot TOU rates through those projects.

Customers can create more value for themselves and for all ratepayers if NEM is paired with TOU rates that are designed to encourage behavioral responses (e.g., load shifting from peak hours), DER system design (e.g., panel orientation), and technology combinations (e.g., PV plus storage) that address technical and economic integration issues.<sup>8</sup> TOU rates better align customer and grid interactions with the time-based costs of grid energy.<sup>9</sup> This encourages DER customers to deploy energy storage systems or west-facing PV system orientations to shift energy exports into the on-peak period to offer more value to the utility system. These advancements also address potential technical challenges associated with midday "excess energy" and afternoon ramps and provide benefits of system peak reductions.

TOU rate-making aligns retail rates with the costs of providing energy throughout the day and thus encourages DER customers to align exports with peak times of highest cost. This cost-based approach avoids long-run marginal costs for the utility over the lifetime of a DER system, thereby benefiting all customers and eliminating the *potential* for any cost shifts.

Utilities design and build their system to serve demand for electricity that builds from mid-afternoon and peaks in the early evening. Thus, the costs of service and corresponding rates that customers pay reflect the on-peak generation, distribution, and transmission costs. TOU rates can be specifically designed to fully cover capacity-related costs for generation, transmission, and distribution, thereby directly aligning rates with the costs that drive those rates, regardless of whether a customer employs DERs.

This alignment provides a strong and accurate signal to customers that reducing peak demand can avoid infrastructure expansion costs and more fully and efficiently utilize existing capacity. DER customers will respond by investing in new technologies for on-site systems to shift their load and exports to reduce peak demand and costs.<sup>10</sup> Numerous utility TOU programs and independent studies confirm the effectiveness of these price signals, and advanced DER technologies should only enhance these results.<sup>11</sup>

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<sup>8</sup> Rocky Mountain Institute, *Rate Design for the Distribution Edge*, at 16 (August 2014) ("RMI Paper").

<sup>9</sup> RMI Paper at 26.

<sup>10</sup> *Id.*

<sup>11</sup> *See, e.g.*, Alternate Proposed Decision on Residential Rate Reform for Pacific Gas & Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company, and San Diego Gas & Electric Company and Transition to Time-of-Use Rates, R.12-06-013, at p. 89 (May 22, 2015), available at: <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M153/K023/153023530.PDF> (recognizing the importance of the price differential between on and off-peak rates and a positive correlation between the on-peak to off-peak ratio and load reduction) ("California Alternate PD"), at p. 86 (noting an average of 5% peak load reduction).

All ratepayers will benefit from these cost reductions, and DER compensation rates will be better aligned with the benefits DER system can provide over their lifetimes.

Moreover, TOU rates "are considered beneficial because they are potentially the most cost-based rate design."<sup>12</sup> That is, TOU rates do not result in cost shifts between customers who lower or shift their demand, whether through efficiency, behavior, or DERs, and those who do not. Under TOU, those who align their load reductions and energy exports with the system peak period pay less or are compensated more. By closely tying rates to the costs that drive those rates, all customers, including TOU-NEM, can eliminate the potential for shifting costs to other customers.

### **C. Smart Home Rates**

TASC and its members are pleased that the Commission envisions a set of demonstration projects to gather information on how a SHR could appropriately be structured to encourage efficient and effective ratepayer investments in grid-connected DER. Third-party providers are best equipped to aggregate technology and software-based products to create an attractive value proposition for ratepayers and a less expensive grid.

An SHR should provide the bridge between the system's needs and the offerings of solution providers, or particular technologies. Such a rate should incentivize behind the meter generation, storage, home controls, electric vehicles, and other advanced technologies, as well as smarter use of standard home appliances. A well-designed SHR would allow a customer to support wholesale and ancillary service markets with additional value to the distribution grid, e.g., frequency and voltage support; capacity and energy through load-shifting, peak shaving, and demand response; and offsetting the need for system upgrades and additional capacity. Ideally, the SHR customer experience would not vary substantially from non-SHR, except for greater visibility into their energy production and consumption, and greater reward for providing value to the grid. Once a fleet of SHR customers is deployed, and data is generated, the SHR solution provider can then conduct a post-hoc analysis on how the fleet could have been aggregated and controlled in whole or in part to provide a greater level of grid services, within specific parameters so as not to harmfully impact the customer experience.

In designing an SHR, utilities should have some level of visibility and access into customer-sited technologies, like storage; however, we agree with the Federal Trade Commission that utility-owned storage or other behind the meter assets should be

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system-wide through opt-in TOU rates); *see also Inside the surprising lessons from PECO's time-of-use rate pilot* Utility Dive (May 26, 2015), available at: <http://www.utilitydive.com/news/insidethe-surprising-lessons-from-pecos-time-of-use-rate-pilot/399629/> (reporting a 6% reduction in peak demand during highest usage months through a voluntary opt-in TOU rate).

<sup>12</sup> California Alternate PD at 81.

approached with caution.<sup>13</sup>

The SHR demonstration projects will help prove out how a company's offering, a particular rate, different technologies, and customer behavior interact to provide benefits to the grid and ratepayers. This can then be leveraged for future rate design decisions. Given this, it would be appropriate to run, and learn from, a number of demonstration projects and then offer one or more SHRs as an opt-in rate that does not displace retail rate NEM. All participants in demonstration projects and subsequent opt-in rates should be held harmless in the event of future rate design changes, or if a particular SHR proves deficient.

With regards to participation in the SHR demonstration projects, it may prove beneficial to test broader market participation interest levels by allowing any third party that can meet the requirements of the pilot tariff to participate. In doing so, this may better gauge market interest and test alternative technical approaches to meeting the tariff requirements.

Any decision to sunset current rate design should be delayed until we learn from demonstration projects and understand the specific details and impacts of possible successor tariffs. Policy objectives, market conditions, customer preferences, and product offerings will change in the interim. As stated above, it is premature to decide upon – before SHR demonstration projects have been run and data gained – an arbitrary sunset date for current mass-market rates. It is necessary to proceed on assessing the implementation of LMP + D, developing and running SHR demonstration projects, and offering tested SHRs as opt-in tariffs before making decisions on the mass-market.

Although the cost of energy storage is declining, a well-designed incentive should be offered with the SHR, both for technology deployment and for participation. For example, there should be an incentive for investing in behind the meter storage as well as an upfront incentive for offering load shifting and other grid services. This will both drive down the initial cost of participating in an SHR and drive greater customer participation. Incentives should increase according to the level of dynamism in an SHR and the level of customer participation that is pledged and performed.

We look forward to working with the Commission, third-party providers and utilities to design a Smart Home Rate that proves out what combination of technologies, incentives, and tariffs will provide optimized customer savings and system benefits.

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<sup>13</sup> See *Reply Comment of the Staff of the Federal Trade Commission*, Proceeding on the Motion of the Commission In Regard to Reforming the Energy Vision: DPS Staff Straw Proposal on Track One Issues, Case 14-M-0101 (Oct. 23, 2014).

### **III. Long-term DER valuation**

#### **A. Process**

We acknowledge and respect that Judge Mullany has decided to employ an informal and collaborative process.<sup>14</sup> We look forward to participating in this stakeholder-driven proceeding. However, existing collaborative proposals, some of which are the result of closed-door negotiations and settlement discussions, do not represent all interests in this docket. We respectfully urge the Commission to ensure a transparent and equitable process moving forward, and we urge Staff to equally consider the merits of all of the comments and proposals in this proceeding.

We fully support the Commission in its process to develop a procedure that appropriately calculates the value of DERs, and establishes compensation mechanisms based on that valuation. As discussed above, TASC members are committed to supporting smart home demonstrations to inform both TOU and SHR designs. The data and insights from those demonstrations will lay the groundwork for the long-term residential DER rate and tariff design in New York, achieving the objectives of NY REV.

### **IV. Conclusion**

The Alliance for Solar Choice appreciates the opportunity to submit these reply comments and looks forward to continued participation in this proceeding.

Respectfully submitted,

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On Behalf of The Alliance for Solar Choice

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<sup>14</sup> *Procedural Ruling* (Issued May 25, 2016), CASE 15-E-0751 - In the Matter of the Value of Distributed Energy Resources.