

STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

CASE 14-E-0151 - Petition of Hudson Valley Clean Energy, Inc. for an Increase to the Net Metering Minimum Limitation at Central Hudson Gas & Electric Corporation.

CASE 14-E-0422 - Petition of Solar Energy Industries Association, Alliance for Clean Energy New York, the Vote Solar Initiative, the National Resources Defense Council and The Alliance for Solar Choice to Clarify the Process for Utilities to Seek Relief from Net Metering Caps.

ORDER RAISING NET METERING MINIMUM CAPS,  
REQUIRING TARIFF REVISIONS, MAKING OTHER FINDINGS,  
AND ESTABLISHING FURTHER PROCEDURES

Issued and Effective: December 15, 2014

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At a session of the Public Service  
Commission held in the City of  
Albany on December 11, 2014

COMMISSIONERS PRESENT:

Audrey Zibelman, Chair  
Patricia L. Acampora  
Garry A. Brown  
Gregg C. Sayre  
Diane X. Burman, abstained

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BY THE COMMISSION:

INTRODUCTION

On September 17, 2014, Solar Energy Industries  
Association, Alliance for Clean Energy New York, the Vote Solar  
Initiative, the National Resources Defense Council, and The  
Alliance for Solar Choice (collectively, Joint Petitioners)  
filed a petition, initiating Case 14-E-0422, seeking to clarify  
the process for utility increases of the caps on the minimum  
amounts of net energy metered (NEM) generation they must

purchase under Public Service Law §66-j,<sup>1</sup> and requesting that the Commission direct the utilities to petition to increase their current 3% minimum purchase caps once the capacity already reserved for installed and contracted NEM generation facilities reaches 90% of the cap within a utility's service territory. A request for an increase to a specific utility's cap was made in a petition Hudson Solar submitted on April 25, 2014, initiating Case 14-E-0151, wherein it asked the Commission to raise the cap for Central Hudson Gas & Electric Corporation (Central Hudson) from 3% to 12% of its 2005 peak load. Due to the similarity of these petitions, both are considered here, as indicated in the Notice Consolidating Proceedings (Consolidation Notice) issued in these proceedings on October 7, 2014.

In conformance with State Administrative Procedure Act (SAPA) §202(1), notice of the Hudson Solar petition in Case 14-E-0151 was published in the State Register on May 21, 2014. The SAPA §202(1)(a) period for submitting comments in response to that petition expired on July 7, 2014. Comments on the consolidated proceeding, per the Consolidation Notice, were due November 7, 2014.

On November 12, 2014 Central Hudson filed a notice in Case 14-E-0151 seeking modifications to its current 3% minimum purchase cap, which is stated in its tariff, because it anticipates that connected and approved NEM capacity will reach the cap in the near future. Central Hudson informs the Commission that, in compliance with the NY-Sun Order, it will continue to accept applications for eligible customer-sited

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<sup>1</sup> The NEM caps in question are those established at PSL §66-j(3)(a)(iii) and (3)(b), for utility purchasing non-wind NEM generation; a separate cap is in place for wind NEM generation pursuant to Public Service Law (PSL) §66-l(3)(a)(iii).

generation, process interconnection agreements, and connect additional NEM systems for capacity in excess of the 3% cap.<sup>2</sup>

Numerous comments were received in response to the petitions regarding minimum purchase caps and issues related to the implementation of NEM projects, such as whether each of multiple but contiguous 2 MW solar array configurations may be remote net metered separately, how the costs of system upgrades incurred to connect NEM projects ought to be determined and allocated, and how current NEM projects will be treated upon a transition to successor tariffs. Besides these matters, other policies on NEM are ripe for discussion, including how community NEM projects could be structured, how locational benefits for NEM resources could be established, and how the transition from NEM to successor tariffs would be implemented.

#### BACKGROUND

While PSL §66-j(3)(a)(iii) as amended in 2008 compelled electric utilities to purchase NEM capacity amounting to at least 1% of each utility's 2005 electric demand, PSL §66-j(3)(b) grants the Commission the authority to increase the net metered minimum purchase cap "if it determines that additional net energy metering is in the public interest." The Commission has addressed requests to increase caps previously, most recently within the past two years. On October 22, 2012, the Commission ordered Central Hudson to amend its tariff to increase its cap from the initial 1% to 3% of 2005 peak load.<sup>3</sup> In that Order, the Commission stated that it would review the

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<sup>2</sup> Case 03-E-0188, Renewable Portfolio Standard, Order Authorizing Funding and Implementation of the Solar Photovoltaic MW Block Program (issued April 24, 2014).

<sup>3</sup> Case 12-E-0343, Central Hudson Gas & Electric Corporation, Order Raising Net Metering Limit (issued October 22, 2012).

net metering caps of all of the utilities; in June 2013, the remaining utilities other than Central Hudson were required to increase their net metering caps to 3%.<sup>4</sup> On April 24, 2014, in the NY-Sun Order,<sup>5</sup> the Commission advised utilities to seek modifications of caps "as necessary ... until ... further decisions are made on the matter."

In response to the NY-Sun Order, Central Hudson, on November 12, 2014, filed a Notice advising that modifications to its current 3% cap were necessary. Another utility, Niagara Mohawk Power Corporation d/b/a National Grid (Niagara Mohawk), has exceeded its cap, if a large volume of proposed projects is totaled in combination with already connected projects.

As further explained in the NY-Sun Order, the Commission authorized the New York State Energy Research and Development Authority (NYSERDA) to implement an MW Block Program for procuring solar photovoltaic (PV) generation during the term from 2016 through 2023. The NY-Sun Order also noted that it would be prudent to conduct an estimation of the cost and benefits of net metered solar generation. The Commission therefore requested NYSERDA to retain a consultant to conduct a study, in consultation with Department of Public Service Staff (Staff), evaluating those costs and benefits, with the expectation that the study's results could be used to assist in REV proceeding deliberations.

Moreover, the Commission has announced its Reforming the Energy Vision (REV) initiative, which promotes improvements in electric system efficiency, greater customer choice, and greater penetration of clean generation and energy efficiency

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<sup>4</sup> Case 12-E-0485, Consolidated Edison Company of New York, Inc., Order Raising Net Metering Limits (issued June 13, 2013).

<sup>5</sup> NY-Sun Order at 22.

technologies.<sup>6</sup> Means for moving forward on realizing the REV vision were addressed in the Staff REV Straw Proposal.<sup>7</sup>

In REV, The Commission has recognized that, as it proceeds in the development of vibrant demand based markets using many forms of distributed energy resources to meet public policy goals, it is necessary to develop markets and pricing mechanisms that support policy and market objectives. Accordingly, tariffs will be developed in that proceeding that properly value distributed energy resources (DER), thereby facilitating the incorporation of more DER resources into the modernized electric delivery system that is contemplated by REV. Consequently, further cost-benefit analyses and development of pricing and tariff designs that facilitate market sustaining investment in DER of all types will be considered in REV.

#### POSITIONS OF THE PARTIES

##### The Petitions

###### A. Hudson Solar

Hudson Solar begins by requesting that the Commission increase the NEM minimum purchase cap for Central Hudson from 3% to 12% of 2005 peak load. Hudson Solar estimates that the current 3% cap in Central Hudson's service territory will be reached in mid- to late 2015.

Describing its operations in New York, Hudson Solar submits that it requires regulatory certainty with regard to net metering in Central Hudson's service territory. According to Hudson Solar, regulatory uncertainty has a detrimental impact on business planning and expansion. Hudson Solar thus requests

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<sup>6</sup> Case 14-M-0101, Reforming the Energy Vision, Order Instituting Proceeding (issued April 25, 2014).

<sup>7</sup> Case 14-M-0101, supra, Developing the REV Market in New York: DPS Staff Straw Proposal on Track I Issues (August 22, 2014).



that the Commission increase the minimum cap for Central Hudson, contending that the expansion of the use of solar power is in the public interest.

B. Joint Petitioners

According to the Joint Petitioners, the newly redesigned MW Block Program adopted in the NY-Sun Order establishes certainty and transparency in incentive levels for solar and puts the State on track to reach its 3,000 MW goal for solar generation by 2023. Despite this positive market momentum and stable regulatory framework, the Joint Petitioners warn, the current net metering caps could create significant uncertainty for developers that could slow project development. While the NY-Sun Order provides that utilities should file when necessary to increase their caps, solar developers investing capital must know if net metering will remain available in order to determine if their investment is sound. Not knowing if an increase in the caps will be available could chill solar investments that would have otherwise been made.

The Joint Petitioners also point out that a review of net metering will be undertaken in the REV proceeding. This review, the Joint Petitioners indicate, creates another layer of uncertainty, in that the milestones for the transition from net metering under the cap to full scale REV implementation are not known. Additional net metering headroom, the Joint Petitioners maintain, should be available under the minimum purchase caps to avoid sidetracking the market momentum solar PV has achieved.

The Joint Petitioners therefore request that the utilities be directed to seek relief from their current minimum purchase caps once capacity already reserved for connected and approved projects reaches 90% of a cap. Increases to the cap, the Joint Petitioners elaborate, should be sufficient to ensure that net metering eligibility will continue for any qualifying

solar project up to the point when utility-specific REV implementation plans are slated to take effect. As a result, any project meeting the threshold requirements for reservation of incentive payments under the MW Block Program would remain qualified for net metering. This approach, the Joint Petitioners argue, would continue steady growth in the distributed energy market while the goals of the REV docket are further developed.

Comments

A. Comments in Support of the Petitions

Hudson Solar submitted comments on its own petition, noting that, while the Commission had ordered utilities to seek modifications of net metering caps if they were at risk of exceeding their 3% limit, an increase to 12% would better support informed decision-making by New York solar installers. Joint Petitioners also submitted comments in support of Hudson Solar's petition, noting that three other states have net metering caps above 3%.

Contending that the current 3% cap is insufficient to encompass development of the entire NY-Sun goal of 3,500 MW of solar PV, Vote Solar comments that increasing Central Hudson's net metering cap is necessary for market certainty. Vote Solar also requests that the Commission establish a stakeholder process to address the net metering cost-benefit analysis that is being conducted by NYSERDA, its consultant and Staff and clarify the timeframe under which that analysis will be considered. Vote Solar makes a number of recommendations regarding the analysis, including that NYSERDA and staff convene a stakeholder forum. Interstate Renewable Energy Council, Inc. supports Joint Petitioners on clarification of the net metering cap increase process, as well as on collaboration over efforts to assess the value of distributed generation, noting that

similar processes are in place in other states. Alliance for Clean Energy New York supports Hudson Solar's petition, stating that increases to the minimum purchase caps are necessary to accommodate the growth of on-site generation; that the potential for net-metered systems to transfer fixed costs for transmission and distribution to non-net-metered ratepayers is minimal; and that utilities will not be disadvantaged by increasing the caps on net metering because they receive guaranteed returns on their investments.

Cornell University's (Cornell) comments in support of the petitions also included requests for clarification on several points: (1) whether non-residential customers can co-locate multiple 2 MW remote net metered projects on and across adjacent or contiguous parcels of property; (2) to what extent customers are responsible for substation upgrade costs that may be required to connect a remote net metered project; and (3) whether a utility may require the customer to implement changes necessary to limit the amount of electricity that a customer provides through a local feeder line to no more than 20% of that line's capacity. Cornell's concerns arise in relation to its proposed solar project in Dryden, New York, where it plans on installing three separately-metered 2 MW solar arrays on a 30 acre site it owns that it says will qualify for hosts in a remote net metering arrangement under PSL §66-j(3)(f). According to Cornell, the distribution utility serving that area, New York State Electric & Gas Corporation (NYSEG), asserts that all of the circuits to which a 2 MW solar array is connected must be upgraded such that the proportion of customer-sited generation load on any line will not exceed 20% of the line's total rated capacity.

Supporting both Hudson Solar's and Joint Petitioners' petitions, SunEdison LLC requests confirmation

that, upon a transition to alternative REV pricing paradigms, the current NEM structure will continue to apply to existing net metering projects. It further echoes Cornell's request for guidance on the ability to co-locate multiple remote net metered systems on a single contiguous parcel.

Other developers and solar industry participants, as listed in Appendix A, support, in whole or in part, the Joint Petitioners, Hudson Solar and Cornell. Most believe the relief requested would help ensure market certainty. In addition, a number of individuals submitted public comments generally voicing support for an increase in the net metering minimum caps.

B. Comments Questioning the Petitions

Consolidated Edison Company of New York, Inc., Orange and Rockland Utilities, Inc., NYSEG, Rochester Gas and Electric Corporation, and Niagara Mohawk Power Corporation d/b/a National Grid (Niagara Mohawk) (collectively, the Joint Utilities) state that the request to increase net metering caps is premature and that Hudson Solar provides no support for its contention that a 12% cap is appropriate. Pointing out that increases in minimum purchase caps are an interim approach while a comprehensive review of distributed energy resource integration is conducted in the REV proceeding, Joint Utilities maintain it is not necessary to increase the cap for all utilities at the same time. They also note that the outcomes of the REV, Green Bank, and Clean Energy Fund proceedings may affect the level of net metering needed and will result in more efficient incentives to locate resources where benefits are greater.<sup>8</sup> Finally, Joint

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<sup>8</sup> Case 14-M-0094, Proceeding on Motion of the Commission to Consider a Clean Energy Fund; Case 13-M-0412, Petition of New York State Energy Research and Development Authority to Provide Initial Capitalization For the New York Green Bank.

Utilities caution that net metering can shift costs to customers who cannot or choose not to participate in solar PV programs and that a sharp increase in minimum purchase caps may impede the Commission's ability to address cost-shifting issues.

Joint Utilities also submitted comments in response to the Joint Petitioners, opining that requiring utilities to automatically request minimum purchase cap increases contradicts the purpose of the caps, which, Joint Utilities state, is to set a limit on the total amount of the incentives directed to net metered resources. Regarding the process the Joint Petitioners propose, Joint Utilities contend that Joint Petitioners have not demonstrated that the current process to address net metering caps is inadequate, particularly in light of the ongoing comprehensive reviews of energy issues discussed above.

Jonathan Schrag and Benjamin Mandel, two Fellows of the Guarini Center on Environmental, Energy, and Land Use Law at the New York University School of Law, (Joint Fellows),<sup>9</sup> advise the Commission to authorize only the minimum feasible increases to the minimum purchase caps. The Fellows also believe a proceeding should be opened where an interim rate for distributed generation would be set as a transition mechanism until the final REV market-based policies are implemented.

In support of their positions, the Joint Fellows contend that NEM is a subsidy granted to select customers that is greater than the value of their energy produced and carbon-reduction benefits taken together, and that this subsidy is threefold beyond that received by utility-scale renewable energy developers ineligible for net metering. While the subsidies grow steadily, the Joint Fellows assert, the benefits increase

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<sup>9</sup> The Joint Fellows state that their comments are their own and do not represent the views, if any, of the Guarini Center or of New York University.

only in small increments. Consequently, the subsidies accompanying an increase in the cap may have a significant impact on ratepayers.

In contrast to the Joint Petitioners, the Joint Fellows believe that the minimum purchase caps serve to limit the financial impact of NEM subsidies on utilities and ratepayers, and therefore suggest that increases to the caps be premised upon an analysis of the potential system benefits and costs of distributed generation. Beyond the value of the benefits, they continue, this impact depends on the various types of NEM resources that constitute the overall mixture in total, because resources differ amongst each other in their capacity factors. Those factors in turn affect the true value other ratepayers receive from the compensation awarded to the resources through NEM rates. Supporting the transition to value-based compensation as superior to NEM generally, the Joint Fellows argue specifically that many of the non-carbon system benefits of distributed generation are location and time dependent, factors which are not recognized under NEM compensation mechanisms.

#### DISCUSSION

As described in the NY-Sun Order, net metering serves as a necessary interim measure while more mature policies and practices that support sustainable markets, based on the full value of DER, are developed within the REV proceeding. In the interim, net metering is a proven and effective tool that supports commercial development of solar, and provides the pricing certainty crucial to the continued development of solar, consistent with the Commission's policy of accomplishing goals for solar through voluntary markets. At the same time, as REV moves forward, it will be important to develop commercially and

economically sustainable pricing mechanisms that support the anticipated growth of both solar and other forms of DER consistent with REV's policy goals.

Currently, Staff is working with NYSERDA and its contractor on approaches to valuing net metered generation by conducting the study that was requested in the NY-Sun Order. While this study is intended to help inform the REV Proceeding, a more comprehensive framework for recognizing the benefits of DER will be considered within the REV process. As part of REV, tariffs will be developed that properly reflect the benefits of DER generation, thereby facilitating the development of sustainable markets that incorporate DER resources as an integral element of a reliable, efficient, economic and environmentally sustainable grid. Consequently, consideration of further cost-benefit analyses and development of tariff successors to net metering will take place in REV, where the work of NYSERDA on the resource value of solar will be used to assist in the analysis.

In the interim while pricing designs reflecting DER benefits, and the markets that would accompany them, are developed through REV, market uncertainty, as Joint Petitioners point out, exists in utility service territories that are approaching the 3% net metering capacity cap. Absent increases to the net metering caps for those utilities at or near their caps, the development of solar PV necessary to achieve New York's renewable energy goals could stall, a circumstance that must be avoided. On the other hand, as discussed in the NY-Sun Order, "significant expansion of the cap would further shift costs, including lost utility revenues and some interconnection costs, to non-net metered ratepayers."<sup>10</sup> Therefore, the caps are

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<sup>10</sup> NY-Sun Order at 22.

modified as discussed below so that utilities will continue accepting applications for eligible customer-sited solar generation and processing interconnection agreements until the time that REV designs are available.

In coordinating net metering and REV, the Commission remains committed to continuing development of the solar projects that will achieve New York's renewable energy goals. Consistent with REV, additional tools will be explored for the purpose of fully supporting the deployment of solar resources where most needed for system efficiency and of most value to customers. As a result, REV's objectives of expanding customer choice, enhancing system efficiency, improving affordability through operation of competitive markets, and promoting resiliency and innovation will be furthered.

#### Net Metering Minimum Purchase Caps

##### A. Increases to the Caps

The PSL §66-j minimum purchase caps exists in part to limit the cost-shifting effects of net metering, i.e., shifting lost utility revenues and some interconnection costs to non-net metered ratepayers. For example, costs incurred under the current 3% cap increase the average delivery bill of Central Hudson's customers by about one half of one percent. Assuming that all additional NEM capacity is solar generation, increasing the caps from 3% to 6% may result in additional company-wide average delivery impacts, beyond those that would be incurred under the 3% cap, ranging from about one half of one percent to more than one percent if 6% caps were reached, depending on the utility.

Therefore, rate impacts related to increases in solar generation need not be considered again until the 6% penetration level is reached. With rate impacts addressed, the cap should be set at a level that affords sufficient room to accommodate



the growth in solar PV installations needed to realize New York’s policy goals while successor measures facilitating continued sustainable development of all DER are considered in REV.<sup>11</sup> A utility-wide cap of 6% should be adequate for that purpose, as the Table below indicates (showing already built and queued capacity data for PSL §66-j net metered generation as of September 30, 2014):

**Table: Net Metering 2005 Peak Demand Capacity**

	PSL §66J - Non-Wind Net-Metered Generation				
	kW				%
Utility	Connected	Proposed	Total	Limit	Total/Limit
<b>Consolidated Edison</b>	52,740	40,426	93,166	332,460	28.02%
<b>Central Hudson</b>	23,025	6,835	29,860	36,000	82.94%
<b>National Grid</b>	72,873	127,028	199,902	196,080	101.95%
<b>New York State Electric &amp; Gas</b>	34,300	10,985	45,284	84,780	53.41%
<b>Orange and Rockland Utilities</b>	11,737	8,115	19,851	31,200	63.63%
<b>Rochester Gas and Electric</b>	5,070	5,629	10,699	48,750	21.95%

B. Transition to Successor Tariffs

Utilities are reminded that the NY-Sun Order proscription prohibiting them from declining to continue interconnecting new solar facilities and accepting new applications from solar developers merely because the cap is approached or exceeded remains in place. Consequently,

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<sup>11</sup> Historically, the vast majority of net metered facilities have been solar PV; if other technologies eligible for net metering with capacity factors higher than the 12.5% assumed for solar were to develop rapidly, adjustments may be necessary to control rate impacts and ensure solar goals can be achieved.

utilities must advise if their caps are in need of modification; if they fail to do so, they must continue to purchase NEM generation nonetheless.

This process has worked well, as the action taken here demonstrates, and will be followed in the future if further increases in the caps become necessary before REV is concluded. In no event, however, would a gap be allowed to open between the time minimum purchase obligations under the caps are fulfilled and the availability of successor tariffs commences. As a result, sufficient means for promoting the growth of solar PV in New York will remain available in conformance with New York's policy goals.

In order to continue the momentum the solar industry has gained in New York, certainty on the availability of revenues is necessary. Developers who have premised their revenue expectations on the availability of net metering should not be deprived of the revenue stream methodology they anticipated. As a result, once a solar project is connected or accepted for NEM, that methodology will not be replaced with a successor tariff methodology unless otherwise requested by the developer or customer. Instead, to provide regulatory certainty, any successor tariffs will adhere only prospectively to projects developed in reliance upon them instead of reliance upon net metering.

#### Clarifying Net Metering Interconnection Issues

Cornell raises three issues: implementation of the statutory 2 MW limit on the size of remote net metered projects where solar arrays are located in close proximity to each other; customer responsibility for substation upgrade costs; and, the effect of the 20% limitation on the proportion of generation facility capacity to feeder line capacity. Similar concerns have been raised by other proposals for solar development,

particularly regarding the issue of whether, and how, the 2 MW limit on remote net metering may be met by dividing larger facilities into smaller 2 MW segments.<sup>12</sup>

A. The 2 MW Limitation

Commission precedent and PSL §66-j establish the conditions which must be satisfied to meet the statutory 2 MW limit. That is, each solar array of no more than 2 MW must be separately metered and interconnected to the utility delivery system, separately sited, and separately operated.

1. Solar Project Segmentation Proposals

Under some solar facility development proposals, PV panels comprising a solar facility would be divided into 2 MW segments, each tied to a meter, with all of these secondary meters then combined behind a cumulative master meter that is in turn connected to the utility's system, and is used for billing and determining NEM credits. Each subsidiary meter for each of the 2 MW segments would be assigned the name of a separate customer, who would lease the panels attached to that meter. The credits earned at the subsidiary meter, which would purport to serve as the host meter for that segment, would then be allocated to satellite meters elsewhere in that customer's name.

Such arrangements whereby a facility is segmented into 2 MW units behind a cumulative revenue meter that is the meter actually interconnected to the utility grid for billing and crediting purposes cannot satisfy the conditions prerequisite to compliance with the 2 MW limit and so would not qualify for remote net metering. Net metering is intended to foster the development of large numbers of small facilities widely distributed across utility service territories. Solar facilities sized at a utility scale concentrated in one

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<sup>12</sup> Pursuant to PSL §66-j(1)(d)(i)(C), the rated capacity of a remote solar generation system is limited to a size of not more than 2.0 MW.

geographic location do not fit within the goals that net metering is intended to promote.

Precedents addressing the purpose of size limitations similar to the PSL §66-j 2 MW limit in other contexts demonstrate that the proposed solar segmentation configurations do not comply with the limit. In enforcing a 10 MW limit for obtaining a contract format priced at long run avoided costs (LRAC) under the Public Utility Regulatory Policies Act of 1978, the Commission stated that the purpose of the 10 MW ceiling "was to encourage small facilities located at discrete sites, and partitioning a larger facility into smaller units transparently violates any reasonable interpretation of the 10 MW limitation."<sup>13</sup> Applying the reasoning to a proposal to develop three separate 10 MW projects at a single housing cooperative site, the Commission found that because all three projects were located at that one site, their capacity aggregated to a 30 MW project that failed to comport with the 10 MW limit.

Addressing similar circumstances where a 2 MW limit was imposed on another entitlement to an LRAC pricing format, the Commission ruled that splitting 4 MW and 6 MW generators, each located at one site, into multiple 2 MW units "is exactly the same as the partitioning found unacceptable" for the 10 MW projects.<sup>14</sup> A site, it was decided, could be the location of only one 2 MW facility. As in PSL §66-j, these policies were intended to promote installation of numerous small qualifying generation facilities distributed widely across

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<sup>13</sup> Case 88-E-246, Consolidated Edison Company of New York, Inc., Order Adopting Emergency Action on a Permanent Basis and Instituting Proceeding (issued April 25, 1991), p. 22.

<sup>14</sup> Case 91-E-0237, Long Run Avoided Cost Estimates Recognizing Bidding Results, Order Denying Rehearing and Deciding 2 MW Power Purchase Contract Petitions (issued July 27, 1992), p. 16.

utility service territories. The PSL §66-j size limitation must be similarly enforced.

2. The Statutory Basis for 2 MW Requirements

The statutory basis for requirements establishing qualification as sized at 2 MW begins with the PSL §66-j(3)(e)-(g) provisions on remote net metering, which allow farm, non-residential and fuel cell customers to locate generation facilities "with a net energy meter on a property owned or leased by such [customer]." That customer may then "designate all or a portion of the net metering credits generated [there] to meters at any property owned or leased" by the same customer. Such satellite meters must be located in the same utility service territory and New York Independent System Operator (NYISO) load zone as the host remote meter.

Pursuant to PSL §66-j(1)(d)(i)(C), the rated capacity of the remote solar generation system is limited to a size of not more than 2 MW. Moreover, the 2 MW solar generator must be "connected to the electric system and operated in conjunction with an electric corporation's transmission and distribution facilities."<sup>15</sup> Finally, the net energy meter used by all net metering customers, including remote net metered customers, is defined as a meter "that measures the reverse flow of electricity to register the difference between the electricity supplied by an electric corporation to the [customer] and the electricity provided to the corporation by that [customer]."<sup>16</sup>

Under the plain meaning of PSL §66-j, segmentation arrangements do not qualify for remote net metering. A remote net metering arrangement, per §66-j(1)(d)(i)(C), is limited to a generator sized at no more than 2 MW that, pursuant to §66-

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<sup>15</sup> PSL §66-j(1)(d)(ii).

<sup>16</sup> PSL §66-j(1)(b).

j(1)(d)(ii), is connected to the electric system. As a result, it is clear that the 2 MW system itself must be connected to the electric system directly, and dividing a larger facility into separately metered subsidiary segments behind a common interconnection of a much larger size at a cumulative master meter does not comport with the statutory requirement. In fact, since the cumulative master meter cannot be in any of the purported customers' names, the threshold requirement that both the host meter and the satellite meters be in the same customer's name clearly is not satisfied.

Moreover, the definition of a net energy meter is "a" meter (singular not plural) that measures the reverse flow of electricity registering the difference between the electricity the utility supplies and the customer's production. Under segmentation arrangements, there are two meters, not one, and the cumulative master meter which is actually connected to a utility delivery system measures consumption and production from a facility sized at more than 2 MW. Therefore, the proposed arrangement does not satisfy that statutory requirement either.

Finally, the remote net metering provisions themselves, at PSL §66-j(3)(e)-(g) provide that "a net energy meter" (again, singular not plural) must be on property "owned or leased by the customer." The segmentation proposals, again, provide for two meters instead of one, in contravention of the statute.

PSL §66-j(3)(e)-(g) also contemplates that each customer separately own or lease the real property where its 2 MW remote net metered facility is sited. Under the segmentation proposals, it is not clear if the customer whose name is on the subsidiary meter behind the cumulative master interconnection meter owns or leases any property, other than leasing the solar PV panels. Since merely leasing the PV panels would be

insufficient to qualify without an ownership or leasehold interest in the underlying real property, the segmentation proposals appear to fail to comply with this requirement as well.

### 3. Prior Enforcement of MW Limits

Interpretation of the PSL §66-j solar net metering 2 MW size limitation should follow interpretations of other PSL provisions that restrict the availability of benefits to generators of a specified size. PSL §§2(2-a) - (2-c) establishes an 80 MW limit as the size for obtaining the qualifying facility (QF) exemption from PSL regulation at PSL §2(4) and (13). In the Prattsburg Ruling,<sup>17</sup> a wind generating project sized at 66 MW was located nearby to other wind generation facilities, which, if their capacity were aggregated with the project's 66 MW, would exceed 80 MW. One factor used in determining the separation needed to satisfy the 80 MW limit was that the 66 MW project was not interconnected with the other nearby projects. The Commission noted that "indeed, if they were interconnected," then the 66 MW project would have lost its QF status because its capacity would have been aggregated with the capacity of the other facilities with which it shared interconnection equipment. But because the 66 MW project was physically separate from the other nearby projects, "their generating capacities will not be aggregated for the purpose of determining" QF status.<sup>18</sup>

The principles stated in the Prattsburg Ruling were later effectuated in the Belmont Order, where the owner of a facility sized at less than 80 MW sought to obtain QF status

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<sup>17</sup> Case 07-E-0674, Advocates For Prattsburg, et al., Declaratory Ruling on Electric Corporation Jurisdiction (issued August 24, 2007).

<sup>18</sup> Prattsburg Ruling, p.6.

notwithstanding that it would share an electric collection line and electric facilities with a neighboring wind generation facility sized in excess of 80 MW.<sup>19</sup> The Commission determined that the smaller facility could not show it was separated from the larger one. The capacity of the two generation facilities were then aggregated and, consequently, QF status was lost. Therefore, a Certificate of Public Convenience and Necessity for the larger facility had to be amended to include the capacity from the facility that had lost its QF status, with the two allegedly separate facilities aggregated into one.

Analyses of size limits have also been conducted in implementing statutes providing for electric generation siting review, including determining compliance with the existing PSL Article 10 limit of 25 MW, below which a generation facility is not subject to the statute's purview. In the recent Brookhaven Ruling,<sup>20</sup> the Siting Board decided that the capacity of fourteen renewable energy generating facilities located in a single Town, with a total nameplate capacity of 53 MW, would be deemed separate for purposes of determining compliance with the 25 MW limit. As a result, none of them would be subject to the provisions of Article 10 because each individually was sized at less than 25 MW.

To determine if the facilities were indeed separate, three factors were evaluated -- if each facility would be located on a separate site; if each would have a separate

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<sup>19</sup> Case 07-E-1096, Noble Ellenburg Wind Park LLC and Noble Belmont Wind Park LLC, Order Granting and Amending Certificates of Public Convenience and Necessity, Providing For Lightened Regulation, and Declining to Review the Transfer of Property (issued December 18, 2007).

<sup>20</sup> Case 13-F-0436, Town of Brookhaven, Declaratory Ruling Concerning Jurisdiction Over Proposed Generating Units (issued January 24, 2014).



interconnection point to the utility grid; and, if each would operate independently of the others. Since each facility satisfied all three factors, it was decided that each was a separate independent facility and there was no basis for aggregating their capacities.<sup>21</sup> As a result, Article 10 did not adhere.

4. Requirements for  
Satisfying the 2 MW Limit

The proposals for segmenting solar PV remote net metering generating facilities into 2 MW units do not meet the statutory Commission or Siting Board standards, in that the allegedly 2 MW facilities are interconnected to each other and then share an interconnection point with the utility. Instead, to evaluate if solar PV proposals meet the 2 MW limit, the three factor test from the Brookhaven Ruling will be applied.

As a result, each 2 MW facility must be separately metered and interconnected to the utility grid, each must be located on a separate site, and each must operate independently of the others. Separate interconnection is readily determined, in that the interconnection arrangements must be made for a separate point at which no more than 2 MW may be connected behind one meter. If any interconnection equipment is shared, or the facility is interconnected in any way electrically to another facility, then the two facilities will be deemed combined and if their joint capacity exceeds 2 MW, neither will qualify for net metering.

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<sup>21</sup> Cf. Case 02-F-0674, CPL Global LLC and Village of Freeport, Declaratory Ruling Concerning Jurisdiction Over Proposed Generating Units (issued July 25, 2002) (separation achieved at adjacent sites through demonstrating that the municipality owning one site cannot legally cooperate with the business owning the other site).

Each remote net metered facility also must be separately sited. Real property law principles are readily applied to define a separate site as that within the ambit of a description in a properly recorded deed. As a result, only one remote net metered facility may be located within the bounds of a site as described in a deed. While facilities may be located in close proximity to each other, each must occupy its own deeded location. Under remote net metering, a customer then may own or lease the underlying property, once it is properly identified. Nothing, however, would prevent owners of property from subdividing a larger property into separately deeded parcels, just as they would for other real estate purposes.

Finally, each 2 MW project must be operationally separate. While, of course, one company may operate any number of sites, their operation must be separately directed independently of each other. So long as that operational separation is satisfied, compliance with the third Brookhaven Ruling factor may be had.

The merits of any particular project proposal under this three factor test will not be decided here. Instead, utilities are to apply the factors to interconnection proposals as they are presented. As with existing net metering policy, if a utility and a developer cannot agree on the application of the three factor test, they may request assistance from Staff or petition the Commission for relief.

##### 5. Application of the 2 MW Requirements

Successful participants in the recent customer sited tier process conducted by NYSERDA, however, may not have been fully aware of the three factor test or its implications.<sup>22</sup>

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<sup>22</sup> New York State Energy Research and Development Authority - Competitive Solar PV Solicitation: Program Opportunity Notice (PON) 2589.

Similarly, successful participants to date in the renewable auction process for the Fresh Kills landfill recently conducted by New York City may also have developed proposals without adequate awareness of the test.<sup>23</sup>

The reasonable expectations of successful participants in those solicitation, including Cornell's, should not be disrupted now, if they can show they made good faith efforts to comply with the 2 MW limit in configuring their proposals. Therefore, utilities are directed to work with those successful solicitation participants who acted in good faith, to interconnect their proposed projects. Again, dispute resolution is available through consultation with Staff or petition to the Commission.

B. System Upgrade Costs

1. Substation Costs

Regarding the extent to which customers are responsible for substation upgrade costs, PSL § 66-j(3)(c)(iii) provides that the customer-generator shall pay the utility's actual costs of installing a transformer or other equipment necessary to maintain the system when the customer-sited generation is interconnected. Moreover, PSL §§66-j(5-a)(b) and (d) establish an additional basis for requiring a customer to incur system upgrade costs:

In the event that the total rated generating capacity of solar electric generating equipment that provides electricity to the electric corporation through the same local feeder line exceeds twenty percent of the rated capacity of the local feeder line, the electric corporation may require the customer-generator to comply with reasonable measures to ensure safety of the local feeder line.

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<sup>23</sup> New York City Department of Environmental Protection and Economic Development Corporation: Request for Proposals (March 20, 2012)

Both categories of costs are subject to review by Staff.

Consequently, if the net metered generator's capacity exceeds 20% of the local feeder line's total capacity, the utility may impose additional, reasonable safety standards upon the customer. This includes the costs of upgrades to the delivery system, wherever incurred, and so would require the customer to bear the reasonable costs of substation improvements, if needed to accept the customer's generation through a line where the 20% limitation is not met.<sup>24</sup>

Utilities should, however, consider dynamic load management (DLM) or other options before requiring upgrades to the delivery system. Means for integrating DLM into the upgrade evaluation should be further considered through the consultation process discussed below. This consideration would also be closely coordinated with efforts underway to examine the existing Standardized Interconnection Requirements.

## 2. The 20% Feeder Line Limitation

As Cornell indicates, however, a utility may not use PSL §66-j(5-a)(b) to set an absolute limit of 20% on the proportion of net metered facility capacity to distribution line capacity. It is incorrect to interpret the statute as providing that, once a customer's generation capacity exceeds 20% of line capacity, the utility may require customer to fund whatever improvements are necessary to upgrade distribution line capacity to more than 20% of net metered capacity.

Instead, any requirements imposed upon the customer must be reasonable and may or may not require limitations on the proportion of distribution line capacity to net metered facility capacity. Moreover, utility cost estimates are subject to review by Staff and the Commission.

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<sup>24</sup> Case 09-E-0608, Boxler Dairy Farm, Order Denying Complaint and Making other Findings (issued April 16, 2010).

Non-Demand Rates at Remote Net Metered Locations

Non-residential customers pursuing remote net metering often interconnect the remote net metered facility at sites where non-demand rates are charged.<sup>25</sup> Those non-demand rates are billed primarily through a volumetric per kWh component. Remote net metered customers have been permitted to convert the kWh exceedances of solar PV production over consumption at non-demand host locations to monetary credits, which may then be distributed to satellite meters elsewhere.<sup>26</sup>

Allowing that conversion for remote non-demand net metered customers, however, deviates from the practice for net metering at on-site locations. A customer installing net metering at a location that is not demand metered would accumulate only volumetric credits for use at that site.

The monetary credits are of greater value than the volumetric credits accumulated at on-site non-demand locations, and also exceed the monetary credits that are available at demand metered locations (where the volumetric component is comparatively less). Moreover, customers evaluating net metering on-site at an existing meter are often already demand metered, and so cannot take advantage of non-demand rates. The result is the creation of uneconomic arbitrage opportunities, as customers pursue remote net metering instead of on-site net metering. Indeed, some customers have asked if they can install a non-demand meter on-site, accumulate monetary credits through

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<sup>25</sup> Case 13-E-0150, Cornell University, Declaratory Ruling on Minimum Load Requirements For Remote Net Metering (issued May 16, 2013).

<sup>26</sup> Case 11-E-0318, et al., Central Hudson Gas & Electric Corporation, et al., Order Modifying and Authorizing Remote Net Metering Tariffs, Modifying Standardized Interconnection Requirements, and Requiring Micro-Hydroelectric and Fuel Cell Tariff Filings (issued November 21, 2011).

remote net metering there, and offset those credits at a demand meter at the same site, instead of net metering at the existing demand meter.

Remote net metering should not be unreasonably promoted over on-site net metering. Moreover, the deviation from the usual practice of crediting non-demand customers at a volumetric credit instead of a monetary credit is not warranted in light of the uneconomic arbitrage it creates. Therefore, electric utilities are directed to file tariffs that substitute volumetric crediting for monetary crediting at non-demand remote net metered locations. This will place remote and on-site locations on an equal footing, and prevent uneconomic arbitrage.

Again, however, net metering developers that have pursued installation of their facilities in good faith should not find their financial expectations disrupted by a change in policy. As a result, utilities shall structure their tariffs such that the successful participants in the solicitations discussed above; existing remote net metered facilities; and, customers that have entered into binding interconnection agreements for remote net metering that have been queued by utilities as of the December 11, 2014 date of this Session, may continue with monetary crediting. Consequently, this substitution of volumetric crediting for monetary crediting will take effect only prospectively.

Items For Further Consideration

Other proposals to promote the installation of solar and other DER facilities should be pursued without awaiting resolution of all REV issues. In particular, there is strong interest in community net metering, where customers who are otherwise unable to participate in net metering for various reasons would join in constructing a facility at a location where net metering can take place. The Commission is also

interested in investigating means for recognizing locational benefits of DER sooner rather than later. Finally, details of the transition from net metering to successor tariffs could benefit from additional development. Therefore, the following issues will be pursued by Staff in consultation with NYSERDA, the utilities and other stakeholders.

A. Community Net Metered Solar Projects

Community net metering allows multiple customer accounts to net meter from a single project. The following structure could enable community net metering. First, a group of customers would associate and the association would build and own a net metered generation facility of no more than the 2 MW limit,<sup>27</sup> under the provisions of PSL § 66-j providing for commercial customer net metering. The association would pay all utility interconnection costs.

Second, in conformance with PSL §66-j, the solar facility would generate significant credits if connected as a non-demand, non-residential customer, as other net-metered solar facilities already are. The credits would be allocated to the association, but, as a service to the association, utilities could be required, independently of the net metering statute, to break up the credit into amounts that would offset bills of the association's members. The association would interface with the project developer, the utility, and its members, providing the utility with the members' account numbers and data on ownership proportions.

As per the PSL § 66-j requirements, all of the members of an association must take delivery service in the same service territory and NYISO zone in which the project is located in

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<sup>27</sup> The term "association" is not defined here, and it is expected that an appropriate definition will be developed in consultation among stakeholders.

order to receive a credit. The types and numbers of customers that could associate, and other terms and conditions for participation would be determined in the consultative process.<sup>28</sup>

Regarding the minimum purchase caps, community solar projects would be counted against the cap. The total capacity of all community solar projects within a utility's service area might also be limited to a portion of each utility's cap.

B. Interim Locational Retail Rate Credits

The consultative process should also address individually-monetized retail rate credits for all distributed generation resources, including fuel cells, that locate in the priority areas utilities have identified for purposes of NYSERDA PONs. Where feasible, locational benefits should not be lost while the REV process unfolds. Indeed, the Commission is moving forward, by taking action at this Session, to address locational benefits in the Brooklyn-Queens demand management program,<sup>29</sup> in developing and implementing dynamic load management (DLM) tariffs,<sup>30</sup> and in soliciting proposals for demonstration projects that will inform the REV process.<sup>31</sup>

Another locational interim measure should be pursued for DER projects. To this end, especially in light of the expected solar developer responses to the increase in the net metering minimum purchase cap to 6% statewide, utilities should

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<sup>28</sup> A locational component - i.e., paying a higher rate in priority locations - could be incorporated into community net metering.

<sup>29</sup> Case 14-E-0302, Petition of Consolidated Edison Company of New York, Inc. For Approval of Brooklyn/Queens Demand Management Program

<sup>30</sup> Case 14-E-0423, In the Matter of Developing Demand Response Tariffs For Electric Distribution Utilities.

<sup>31</sup> Case 14-M-0101, supra.



submit, within the consultative process, plans for identifying the locational benefits to the electric system that will accrue from the increases in the siting of solar and other net metered generation facilities.

C. Transition From Net Metering to Successor Tariffs

As noted, it is important that the retail markets fully value distributed energy resources, including solar resources. While this is a matter that fits within REV, there is no reason for that docket to be completed in order to explore market enabling alternatives to accommodate continued penetration and innovation in DER markets. Thus, in addition to developing the interim measures described above, the Commission directs Staff in consultation with NYSERDA to develop for comment and consideration an approach for pricing and valuing DER resources that recognizes their benefits in accordance with the principles enunciated in REV. In addition to fulfilling the REV principles, the Commission expects Staff to coordinate its work on successor tariffs with the work on DLM tariffs.

CONCLUSION

Staff should consult with NYSERDA, the utilities, and other interested stakeholders on the issues discussed above. Staff shall report to the Commission on progress achieved through the consultation in addressing these issues within 120 days of the date of this Order.

The Commission orders:

1. Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc. and Rochester Gas and Electric Corporation are directed to file, in

conformance with the discussion in the body of this Order, tariff leaves providing for net metering minimum purchase caps set at 6% of 2005 load, by December 22, 2014 to become effective on January 2, 2015.

2. Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc. and Rochester Gas and Electric Corporation are directed to file, in conformance with the discussion in the body of this Order, tariff leaves providing for crediting of remote net metered customers that are also non-demand customers on a volumetric instead of a monetary basis, for those prospective customers described in the body of this Order, by December 22, 2014 to become effective on January 2, 2015.

3. The requirements of §66(12)(b) of the Public Service Law concerning newspaper publication of the tariff amendments described in Ordering Clause Nos. 1 and 2 are waived.

4. Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc. and Rochester Gas and Electric Corporation are directed to interconnect net metered generation facilities in conformance with the requirements established in the body of this Order and to consult with Staff of the Department of Public Service, the New York State Energy and Research Authority and other stakeholders in conformance with the discussion in the body of this Order.

5. The Secretary in her sole discretion may extend the deadlines set forth in this Order. Any requests for an extension must be in writing, must include a justification for

the extension, and must be filed at least one day prior to the deadline.

6. These proceedings are continued.

By the Commission,

(SIGNED)

KATHLEEN H. BURGESS  
Secretary

APPENDIX A

AllEarth Renewables

AWS Truepower, LLC

Borrego Solar

Dynamic Energy Solutions, LLC

EarthKind Energy

Enphase Energy, BQ Energy

Great Rock Windpower LLC

groSolar

Integrated Solar Technology

QiDo Development

Solar GreEnergy

Sungevity

SunPower Corporation

Taitem Engineering

The Advanced Energy Economy Institute

The Association for Energy Affordability

The Distributed Wind Energy Association

The North American Board of Certified Energy Practitioners

The Pace Energy and Climate Center

Vidaris, Inc.

You Save Green

CASES 14-E-0422 & 14-E-0151

Commissioner Diane X. Burman, abstained

As reflected in my comments made at the public session on December 11, 2014, I abstain.