INTRODUCTION

On March 9, 2017, the New York State Public Service Commission (Commission) issued the VDER Phase One Order, which directed that the compensation for eligible distributed energy resources (DERs) transition from net energy metering (NEM) to the “Value Stack.” The Value Stack is a methodology that bases compensation on the actual, calculable benefits that DERs create. The VDER Phase One Order also created a transitional compensation mechanism, Phase One NEM, which offers compensation similar to NEM for a limited time period to: 1) certain eligible projects that were in a late stage of development at the time

the VDER Phase One Order was issued; and 2) all eligible on-site mass market projects, such as rooftop solar, interconnected before January 1, 2020.

Pursuant to the VDER Phase One Order, a project is eligible for compensation based on the Value of Distributed Energy Resources (VDER) tariff, including Phase One NEM and the Value Stack, only if, based on its size and technology, it would be eligible for NEM pursuant to Public Service Law Sections 66-j and 66-l. Specifically, solar, wind, hydroelectric, farm-based anaerobic digesters, and fuel cells with a rated capacity of 2 MW or less are eligible, subject to certain additional restrictions related to system design and fuel source. In addition, combined heat and power (CHP) units sited at residential locations with a rated capacity between 1 kW and 10 kW are eligible.

In the VDER Phase One Order, the Commission explained that reducing soft costs, including taking advantage of the economies of scale offered by larger project sizes, would play an important role in driving the deployment of DERs at scale. Subsequently, in the VDER Implementation Order, the Commission found that allowing projects with a rated capacity between 2 MW and 5 MW to receive Value Stack compensation would significantly reduce costs through economies of scale. In particular, this could drive DER development in utility territories and sectors that might otherwise prove difficult for project financial viability. The Commission therefore expressed an intention to increase the maximum rated capacity eligible for Value Stack compensation to 5 MW.

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However, the Commission recognized that several issues related to an increase in maximum project size required further process. For that reason, the VDER Implementation Order did not immediately increase the project size limit, but instead solicited input regarding policy issues described in an appendix. In addition, the Commission recognized that interconnection issues associated with a change in maximum project size that may receive Value Stack compensation could require modifications to the Standard Interconnection Requirements (SIR)\(^3\) and directed Department of Public Service Staff (Staff) to work with the Interconnection Policy Working Group and Interconnection Technical Working Group to consider the need for such modifications. On December 20, 2017, Staff responded to this direction with a filing that proposes amendments to the SIR.

In this Order, to unlock the economy of scale and efficiency benefits that will result in the development of additional clean generation without impacting nonparticipating ratepayers, the Commission expands eligibility for participation in Value Stack tariffs to projects up to 5 MW, subject to existing VDER tariff rules on technology eligibility, and with the exception of CHP, as discussed below.

**NOTICE OF PROPOSED RULE MAKING**

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), a Notice of Proposed Rulemaking was published in the State Register on October 4, 2017 [SAPA No. 15-E-0751SP10].

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\(^3\) While projects sized between 2 MW to 5 MW have been covered by the SIR since the Commission increased the upper threshold in the March 18, 2016 Order Modifying Standardized Interconnection Requirements in Case 15-E-0557, Staff suggested additional SIR improvements in anticipation of the expected increase in larger project applications.
The time for submission of comments pursuant to that Notice expired on December 4, 2017. The comments received are summarized and addressed below.

**SUMMARY OF COMMENTS**

**Joint Utilities**

Central Hudson Gas & Electric Corporation (Central Hudson), Consolidated Edison Company of New York, Inc. (Con Edison), New York State Electric & Gas Corporation (NYSEG), Niagara Mohawk Power Corporation d/b/a National Grid (National Grid), Orange and Rockland Utilities, Inc. (O&R), and Rochester Gas and Electric Corporation (RG&E) (collectively, the Joint Utilities) submitted joint comments opposing the expansion of Value Stack tariff eligibility to larger resources. The Joint Utilities argue that such an expansion is inconsistent with the principles of establishing a market where DER is competitive with other resources. They assert that projects in the 2 MW to 5 MW range already have the ability to monetize most of the components of the Phase One Value Stack tariff in the market and do not, therefore, require additional compensation. They also state that application of the Phase One Value Stack tariff to larger resources will likely provide excessive compensation and put further pressure on the previously established 2% target for bill impact on customers. Instead, the Joint Utilities suggest that an increase to the cap on Value-Stack eligible project size be reevaluated in Phase Two.

If the Commission does choose to increase the project size cap, the Joint Utilities state that the increase should be applicable to all eligible technology and project types. The Joint Utilities maintain that the market transition credit (MTC) should remain applicable only to project types previously eligible for NEM in terms of both technology and size.
Joint Utilities argue that, for projects above 2 MW and up to 5 MW in size, distribution-system values, both the system-wide values recognized through the Demand Reduction Value (DRV) and the location-specific values addressed through the Locational System Relief Value (LSRV), should be provided through solicitations rather than tariffed values.

**Consumer Power Advocates**

Consumer Power Advocates (CPA), a coalition of not-for-profit commercial health care and educational customers in the Con Edison service territory, argues that in areas like NYC, where the space to install large solar or other non-emitting resources is limited, CHP represents the largest opportunity for clean DER development. For this to occur, CPA states, the Commission should allow larger CHP facilities to participate in the Value Stack. CPA explains that an increase to a 5 MW limit will be beneficial but will not be sufficient to accommodate all use cases, such as larger educational and medical campuses. Ultimately, CPA asserts, for CHP to be able to fulfill a more substantial role, a 15 MW cap should be adopted.

**New York City**

New York City (the City) supports increasing the project size cap, and recommends that any increase in the project size cap should be technology-neutral and applicable across all resource types and project types, especially since the availability of appropriate locations to site DER could limit the siting opportunities for solar arrays above 2 MW. The City notes that there is still significant room remaining in the Tranches of Con Edison. Therefore, at least within Con Edison service territory, the City recommends that the Commission not implement an auction mechanism for DER projects larger than 2 MW, but instead treat these projects as it would smaller DER projects, so as not to potentially bias the marketplace toward
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greater solutions. The City recommends that the Commission not adopt any specific regulations requiring projects larger than 2 MW to dedicate a certain portion of their projects to low or moderate income (LMI) customers, arguing that such quotas could create unnecessary barriers for DER development and that better solutions exist for increasing LMI engagement in clean energy.

Coalition of Renewable Energy Users and Developers

The Coalition of Renewable Energy Users and Developers (CORE), a coalition of New York corporations, colleges, universities, and project developers committed to combating climate change, supports the increase in size of projects. CORE states that the proposed increase in cap size should be implemented to allow existing projects and projects currently under development to increase their potential output or to consolidate. CORE asserts that where a developer wishes to consolidate or combine multiple projects, it should be permitted to do so without having to undertake new or separate interconnection studies.

CORE argues that the 5 MW cap should be applied to existing and prospective DER resources regardless of technology or project type. CORE asserts that, for existing on-site and remote net-metered projects, if a project’s output can be increased within the revised cap without any change in infrastructure and the incremental output will not have a material impact on the overall utility percentage or MW cap on the pricing regime that the project is subject to (e.g., NEM, Phase I NEM, or the Value Stack), the incremental capacity should be allowed to receive the same pricing as the existing project. CORE explains that if expansion of an existing project’s output will require a material alteration to the utility interconnection or other system infrastructure, the incremental capacity should be placed in the interconnection.
queue and receive the appropriate pricing based upon where the incremental capacity stands in the queue. CORE also states that the Commission should clarify that the revised size cap concurrently increases the limit on cumulative capacity of projects supporting a single satellite account through remote net metering. CORE also requests that the Commission clarify to local taxing authorities that zoning, subdivision, and permitting rules and regulations should be adjusted to reflect the revised cap size.

Clean Energy Parties

The Coalition for Community Solar Access, the Alliance for Clean Energy New York, the Natural Resources Defense Fund, Pace Energy and Climate Center, New York Solar Energy Industries Association, Solar Energy Industries Association, and Vote Solar (collectively, the Clean Energy Parties or CEP) support increasing the allowable project size, explaining that the current policy of requiring subdivisions in order to construct projects larger than 2 MW slows down DER deployment, increases costs for municipalities, and has the potential to increase land use impacts. CEP recommend that an increase in allowable capacity be extended to all eligible technologies and project types.

CEP state that proposed projects in any phase of the interconnection process should be afforded a limited opportunity to request a cost estimate for consolidation up to 5 MW, so long as the projects to be consolidated are be physically adjacent to one another and hold sequential queue positions on the feeder and substation. CEP agree that existing projects larger than 2 MW should be permitted to opt-in to the Value Stack and existing projects smaller than 2 MW should be permitted to expand their capacity. CEP argue that any compensation change, such as a reduction in the MTC, for larger projects would offset the soft
cost reductions gained from the project size increase, thus defeating the purpose. CEP also oppose the use of an auction, saying an auction would introduce numerous additional soft costs for both developers and the entity implementing the auction, potentially eliminating any gains achieved through an increased project size limit.

Utility Intervention Unit

The Utility Intervention Unit (UIU) of the New York State Department of State's Division of Consumer Protection notes that on November 20, 2017 the Solar Energy Industries Association (SEIA) filed a petition for rehearing of the Commission’s Order Establishing Oversight Framework and Uniform Business Practices for Distributed Energy Resource Suppliers (UBP-DERS Order), issued on October 19, 2017. As UIU explains, the UBP-DERS Order established a set of rules, the UBP-DERS, and an oversight framework for DER Suppliers (DERS), some of whom receive VDER tariff compensation, and the SEIA Petition claims the Commission made errors of law by asserting jurisdiction over DERS. The SEIA Petition is currently pending before the Commission.

UIU argues that it is inappropriate for SEIA to argue that DERS are not subject to the Commission's regulatory jurisdiction while simultaneously arguing, on the instant matter, that the Commission should allow larger projects to participate in the Commission-authorized Value Stack compensation, including the MTC, given the recognition in the VDER proceeding that the MTC imposes cost shifts on non-participating ratepayers. Given the pendency of the SEIA Petition and the resulting regulatory uncertainty, as well as the long-term commitment implied in the MTC, UIU argues that the Commission should either limit the MTC to projects sized at 2 MW or smaller or retain the current overall project size cap of 2 MW.
LEGAL AUTHORITY

As described in the VDER Phase One Order, the Commission has the authority to direct the treatment of DERs by electric corporations pursuant to, inter alia, Public Service Law (PSL) §§ 5(2), 66(1), 66(2), and 66(3). Pursuant to the PSL, the Commission determines what treatment will result in the provision of safe and adequate service at just and reasonable rates consistent with the public interest and the efficiency of the electric system.

DISCUSSION

Unlocking the advantages of economies of scale and other soft cost reducing measures is key to driving deployment of clean generation and other DERs at the scale needed to meet the objectives of the Reforming the Energy Vision initiative (REV) and to create a modern, integrated grid. As recognized in the VDER Phase One Order and the VDER Implementation Order, the 2 MW limit on participation in VDER tariffs, including the Value Stack, limits the ability of developers and customers to take full advantage of some of those economies of scale. As the Joint Utilities state, for large clean generation projects, appropriate compensation may be available through the wholesale market, including the market for attributes of Tier 1 eligible resources and the associated procurements conducted by the New York State Energy Research and Development Authority (NYSERDA). However, Commission and NYSERDA experience with the procurement of large scale clean generation resources demonstrates that projects between 2 MW and 5 MW rarely participate in those procurement and wholesale market programs, likely both due to their complexity and because greater economies of scale available for even larger projects make it difficult for projects between 2 MW and 5 MW to compete. The Joint Utility
comments claiming that those mechanisms are sufficient for the
development of projects with capacity between 2 and 5 MW fail to
demonstrate that any such development has occurred under the
existing conditions, nor do they offer any reason to believe
that projects between 2 MW and 5 MW cannot be a beneficial part
of the DER ecosystem or any alternative method for enabling
development of those projects.

By opening up Value Stack participation to projects
between 2 MW and 5 MW, subject to the same terms, compensation
mechanisms, and Tranche system as projects smaller than 2 MW,
the Commission can open up opportunities for customers and
developers to take advantage of those economies of scale and
efficiencies without increasing the costs on non-participating
ratepayers. In that way, projects can be built in utility
territories where a project sized at 2 MW or lower might not be
financially viable, given Tranche status and project economics.
Furthermore, in some cases developers are currently planning
multiple 2 MW projects next to each other. Enabling some of
those projects to be combined will create efficiencies by
eliminating the need for multiple interconnection points,
setbacks between projects, and other unnecessary or duplicative
costs. As the existing SIR requires technical impact review for
such projects and payment for any necessary system upgrades by
the applicant prior to interconnection, the integration of
larger projects onto the distribution system will not create
reliability impacts or costs for utilities or nonparticipating
ratepayers.

For these reasons, to render more projects viable and
to unlock the economy of scale and efficiency benefits that will
result in the development of additional clean generation without
impacting nonparticipating ratepayers, the Commission will
expand eligibility for participation in Value Stack tariffs to
projects up to 5 MW, subject to existing VDER rules on technology eligibility, and with the exception of CHP, as discussed below. Specific policy issues related to the implementation of this expanded eligibility are discussed below.

The Commission believes that customers of DERS must be protected by appropriate regulations and appreciates UIU's concerns about expansion of eligibility while a Rehearing Petition challenging those regulations is pending. However, because this Order does not increase the total capacity allocation for Community Distributed Generation (CDG) resources, this Order will not increase the total potential customers for DER suppliers nor is there any reason to believe it will result in longer contracts than would otherwise be employed.

Furthermore, while the SEIA Rehearing Petition is not being decided at this time, the Commission is confident that future decisions will ensure that all customers are appropriately protected.

The Commission will not require that projects larger than 2 MW include an LMI component. As commenters state, there are better methods available to ensure that LMI customers are able to participate in and benefit from DERs. In particular, both the proposal by the VDER LMI Working Group and the implementation plan for Con Edison's shared solar pilot are currently before the Commission.

Implementation of this Order will require tariff changes by the utilities. Because the VDER tariffs, including the issues addressed in this Order, have been the subject of extensive public process, newspaper publication is unnecessary and should therefore be waived.

Compensation of Projects Larger than 2 MW

The Value Stack, with the exception of the MTC, is designed to provide projects with compensation based on the
specific and calculable benefits those projects create for the utility system. Those benefits reflect utility avoided costs; therefore, compensating a project based on the Value Stack results in that project receiving the most precise compensation available for the actual values it provides. For that reason, it is appropriate for projects sized between 2 MW and 5 MW to be compensated based on the Value Stack subject to the same rules as projects sized at or below 2 MW. Because a primary purpose of this expansion is to reduce soft costs so that projects can be built in utilities where they may not currently be financially viable based on the currently open Tranche, reducing or eliminating the MTC for projects larger than 2 MW is not appropriate. Because the MTC for projects between 2 MW and 5 MW will be subject to the same rules and Tranche limits as the MTC for projects smaller than 2 MW, this will not result in any additional impact on nonparticipating ratepayers.

Under no circumstances should a project larger than 2 MW receive compensation based on net metering or Phase One NEM, as these compensation mechanisms are intended only for projects that would have been eligible for net metering prior to the issuance of the VDER Phase One Order.

Compensating one project based on two different compensation mechanisms or MTC levels would be impractical, invariably resulting in both utility costs and customer confusion. Therefore, currently, if a CDG project reserves its Tranche position by making the appropriate interconnection payment when less space remains in the current Tranche than the project's size (for example, if a 2 MW project makes the payment when Tranche 2 in its interconnecting utility only has 1 MW of capacity remaining) that project is nonetheless placed entirely in the current Tranche. While this results in an increase in the size of that Tranche, with the original capacity limit the
overflow was limited to less than 2 MW, and in practice was likely to be 1 MW or less in most cases. With the new capacity limit of 5 MW, the overflow could be up to 5 MW, which is more than a third of some Tranches and therefore could result in a significant increase in the net revenue impacts of the Tranches. For that reason, going forward, overflow is limited to a maximum of 1 MW; if a project's size exceeds the remaining capacity in the current Tranche by more than 1 MW, the entire project will be placed in the next Tranche. At that time, the original Tranche should be closed, and the total size of the new Tranche should be increased by the unused size in the original Tranche.

**Eligible Technologies and Project Types**

The Commission agrees with commenters that it is appropriate to include generators sized up to 5 MW of all technologies and project types currently eligible to receive VDER compensation for projects sized up to 2 MW. Projects will continue to be subject to fuel source requirements and other technical requirements included in VDER rules and derived from PSL Sections 66-j and 66-l. The Commission notes that Staff is currently developing a proposal, with input from stakeholders through the Value Stack Working Group, regarding whether some of these requirements should be eliminated.

However, the Commission will not expand the maximum eligible capacity of CHP generators at this time. As commenters note, the current rules allow only a very narrow category of CHP generators to participate. The development of the VDER compensation mechanisms focused on the attributes of the clean generators that make up the majority of VDER-eligible projects. The inclusion of and appropriate compensation of larger CHP generators requires more detailed analysis. Staff has conducted that analysis in collaboration with the Value Stack Working Group and will release a Proposal on Expedited Eligibility...
Expansion that will include recommendations related to whether, and subject to what rules, larger CHP generators should be eligible for participation in VDER tariffs. The Proposal on Expedited Eligibility Expansion will also consider whether other currently ineligible technologies should be granted eligibility for VDER tariffs and whether other technical limits on generators, such as fuel type rules, should be modified. The Commission expects that any technology that becomes eligible for VDER tariffs will be eligible up to a maximum capacity of 5 MW, unless otherwise determined in the order granting that technology eligibility.

The Commission also finds that it is appropriate to increase the maximum capacity to 5 MW for all project types, including on-site projects, remote projects, and CDG projects. This will allow all types of customers to benefit from the efficiencies that the capacity increase creates and may also offer an opportunity for sectors of the market that are currently struggling with VDER project economics. As CORE requests, the Commission notes that this does allow an individual satellite account to be served by several generators, including multiple remote generators at host sites and a generator located at the satellite account, with a cumulative rated capacity of up to 5 MW.

Opt-In by Existing Generators

Some generators sized between 2 MW and 5 MW currently exist in New York State and receive compensation through bilateral contracts, utility buyback tariffs, or the wholesale market. As the Value Stack offers compensation more precisely tied to a project’s actual benefits than earlier methods, existing generators sized at between 2 MW and 5 MW that meet other eligibility requirements shall be permitted to opt-in to participation in the VDER tariff and receive Value Stack
compensation. These projects will be subject to the same rules as projects under 2 MW that opt in to Value Stack compensation; specifically, including the limitation of environmental compensation to projects that meet the Clean Energy Standard (CES) vintage date requirement of January 1, 2015 and other applicable CES requirements. Projects receiving compensation for renewable attributes through the Renewable Portfolio Standard, including the Maintenance Tier, or through Tier 2 of the CES are permitted to opt-in and receive elements of the Value Stack other than the Environmental Value. If the project is eligible for the MTC, it should be placed in the Tranche that is open at the time it opts in and receive MTC compensation based on that Tranche. Existing facilities that propose to move to Value Stack compensation without any change to the characteristics of the existing generator are not subject to the interconnection procedures specified in the SIR. Utilities shall accommodate requests to opt-in by identifying necessary metering changes and installing the appropriate meters within a reasonable period of time after receipt of the request and payment by the generator of any charges related to the change in metering.

Expansion of Existing Generators

Existing, interconnected generators sized at under 2 MW and currently receiving compensation under NEM, Phase One NEM, or the Value Stack may have the capability, based on their design and location, to expand their capacity up to 5 MW. Utilities will manage such expansion requests as provided under the SIR, and Value Stack compensation for the expanded project will be available after the applicable interconnection requirements have been met. Because compensating one project based on multiple compensation mechanisms is impractical, if the generator currently receives compensation through NEM or Phase
One NEM, the expanded generator must accept Value Stack compensation for the entire project. Similarly, a CDG project already receiving Value Stack compensation will receive compensation based on the currently available Tranche for the entire expanded project; that is, if a 2 MW CDG project receiving Tranche 2 capacity expands to 4 MW after Tranche 2 fills up and while Tranche 3 is open in its utility territory, the entire 4 MW project will receive compensation based on Tranche 3 after the expansion. To avoid double counting capacity, the utility should reduce the capacity of the original Tranche by the project’s original capacity and add that capacity to the currently open Tranche; that is, in the above example, the size of Tranche 2 should be reduced by 2 MW and the size of Tranche 3 should be increased by 2 MW and the entire 4 MW project should be counted towards Tranche 3.

**Expansion or Consolidation of Projects Under Development**

Similarly, the developer of a project currently in the interconnection queue may choose to increase that project’s capacity to more than 2 MW or to consolidate existing projects on neighboring sites. In either case, the resulting project will receive compensation based on the Value Stack once it is interconnected. If the resulting project is a consolidated project that has total capacity equal to or less than the original projects, and if the original projects had received the same Tranche assignment, the consolidated project will retain that Tranche assignment. Otherwise, if the project is an expansion or a consolidation of projects with different or no Tranche assignment, the resulting project should be placed in the currently available Tranche at the time it passes the appropriate milestone, or at the time of expansion or consolidation if it had already passed that milestone. As described above, where one of the projects was originally in an
earlier Tranche, the capacity associated with that project should be moved to the current Tranche.

Interconnection Applications

As described above, Staff consulted with the Interconnection Policy Working Group and Interconnection Technical Working Group on the potential impact of increased project capacity and submitted proposed SIR changes as a result of that discussion. The comment period is currently open on those proposals\(^4\) and therefore the Commission will not make a determination on the proposed changes at this time.

However, the Commission notes that the SIR already provides for the interconnection of projects between 2 and 5 MW and the expansion of existing or proposed projects. The proposed SIR changes relate to the consolidation of projects already in the interconnection queue. For that reason, developers are permitted to submit applications for new projects sized at between 2 MW and 5 MW and designed to receive Value Stack compensation, as well as to propose expansions of existing projects and projects in the interconnection queue. However, developers may not consolidate projects already in the interconnection queue until the Commission has considered and acted on the proposed SIR changes.

The Commission also notes that larger projects are likely to result in higher interconnection costs, though in at least some cases the costs for one larger project may be lower than for two separate projects with the same total capacity. Furthermore, in some areas, it may be impractical or even impossible to sufficiently upgrade the distribution system to

handle one or multiple 5 MW projects. While the Commission and Staff will continue to work to ensure that interconnection costs are reasonable and appropriate, this Order does not guarantee that interconnection of a 5 MW project will be possible, or will be possible at a cost resulting in a financially viable project, in all locations.

CONCLUSION

This Order takes a major step in decreasing DER project soft costs by enabling economies of scale and reducing inefficiencies. The Commission expects that continued cost reductions, through both Commission action and continued technological process, will enable and accelerate the development of DERs with limited or no impact on nonparticipating ratepayers. This scale of deployment will drive the clean, distributed, transactive, and integrated electric system REV envisions.

The Commission orders:

1. Central Hudson Gas & Electric Corporation (Central Hudson), Consolidated Edison Company of New York, Inc. (Con Edison), New York State Electric & Gas Corporation (NYSEG), Niagara Mohawk Power Corporation d/b/a National Grid (National Grid), Orange and Rockland Utilities, Inc. (O&R), and Rochester Gas and Electric Corporation (RG&E) are directed to file tariff leaves expanding the eligibility for Value Stack compensation under the Value of Distributed Energy Resources tariff to projects with a capacity between 2 MW and 5 MW, consistent with the requirements in the body of this Order, on not less than 15 days' notice to become effective by April 1, 2018.

2. The requirements of §66(12)(b) of the Public Service Law and 16 NYCRR §720-8.1 concerning newspaper
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publication of the tariff amendments described in Ordering Clause No. 1 are waived.

3. In the Secretary’s sole discretion, the deadlines set forth in this order may be extended. Any request 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 affected deadline.

4. This proceeding is continued.

By the Commission,

(SIGNED) KATHLEEN H. BURGESS
Secretary