BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NEW YORK

Case Number 18-E-0130

In the Matter of Energy Storage Deployment Program

Comments of the Enel Group Companies on the New York State Energy Storage Roadmap and Department of Public Service/ New York State Energy Research and Development Authority Staff Recommendations, September 10, 2018

The Enel Group appreciates the opportunity to provide comments on the New York State Energy Storage Roadmap and recommendations. We commend the staff from the Department of Public Service ("DPS") and New York State Energy Research and Development Authority ("NYSERDA") for their significant efforts in developing the roadmap, and for soliciting the feedback of stakeholders. We are encouraged by staff's commitment to achieve New York's ambitious goals.

The Roadmap appropriately captures the benefits of increased storage deployment, and provides several recommendations that provides a foundation for progress toward meeting these goals. In the following comments, we will highlight how to strengthen these recommendations before the PSC acts on them in order to meet the state's storage targets. Although we provide specific comments below, we wish to raise two high-level comments:

- We commend the Roadmap's intent to achieve a cleaner peak, but direct procurement mechanisms dedicated to this clean peak are necessary. We provide detailed recommendations, and look forward to further discussions with staff.
- There is tremendous uncertainty at the NYISO level regarding how the NYISO will value and integrate energy storage in the market. While the objective should be to maximize NYISO market-based revenues, it is unclear what revenues will be available at the NYISO level. The final set of policies should recognize that a bold and aggressive state roadmap is necessary to meet the state's energy storage targets, as the NYISO market may provide limited assistance.

We will provide a brief overview of Enel, and then summarize our recommendations on each section in the format requested by DPS/NYSERDA. To provide a more concise document, we are only providing comments on sections where we wish to offer our own recommendations, or

discuss the Roadmap's recommendations. For sections of the Roadmap where we provide no comment, NYSERDA/DPS can assume that Enel supports the recommendations from that section in the Roadmap, and does not have additional commentary.

Enel Group Overview

Enel, a global energy titan serving approximately 72 million customers in more than 30 countries, is powering the smart energy evolution in North America through an innovative, diversified approach to energy production and management. With more than 1,500 employees in North America, Enel is the industry leader in both renewable energy and energy service solutions; it was the fastest growing renewable energy company in the U.S. and Canada in 2017 and is the leader in demand response through its acquisition of EnerNOC in 2017. Enel operates in the U.S. and Canada through two distinct business lines, Enel Green Power and Enel X, which provide services to different segments of the energy market. Through these two divisions, Enel integrates power, technology and services to design customized energy solutions for organizations of all sizes. Its energy solutions create an opportunity for companies to meet their business goals, from energy cost-savings to enhanced sustainability practices and operations that are more resilient.

Enel X includes EnerNOC, Demand Energy, and eMotorWerks, all of which Enel formally acquired in 2017. Enel X provides complete energy service solutions to businesses and consumers while leading the imminent transformation of the modern electric grid. Both EnerNOC and Demand Energy have delivered innovative solutions to end-use customers and utilities in New York for several years, and have consistently engaged in the regulatory process during that time. Most relevant to storage, Enel X holds the leadership position in behind-the-meter energy storage systems in New York City. Since our first installation at the Glenwood Management-owned Barclay Tower in 2012 (then through Demand Energy), we have deployed 14 customer-sited projects representing 1.5 MW of capacity that provide multiple services to save commercial users money and support the local grid.

Enel, through its renewables division Enel Green Power, is growing New York's renewable energy economy, creating, and producing sustainable energy solutions to help diversify power supplies and reduce the carbon footprint across the entire state. In the state, Enel Green Power owns and operates more than 90 MW of total installed capacity across 19 hydropower plants and two wind projects, Fenner and Wethersfield, producing enough clean energy each year to avoid the emission of about 175,000 tons of CO2.

Roadmap Recommendations

4.1. Retail Rate Actions and Utility Programs

4.1.1 Delivery Service Rate Design

Enel strongly supports the recommendation for utilities across the state "to develop an optional rate, built on the current standby rate, that implements a more granular time- and location-varying daily as-used demand rate (similar to Con Edison's "Rider Q" pilot tariff) and include rate certainty during this pilot tariff period (e.g., Con Edison's Rider Q includes a 10-year rate fix)." This recommendation provides customers greater control over their bill, and aligns customer costs with the costs each customer's usage imposes on the grid.

More specifically, the Commission should approve transitioning the delivery rate design from block periods to an hourly, location-based model, on an opt-in basis for customers. We recognize that this may require changes to utility processes, and that utilities cannot implement such a change immediately. However, such a change should be final by 2021, as we cannot build the digital power grid of the future if we are constrained by analog billing systems. Just like the bulk level, the costs to operate the distribution grid vary by hour. Yet no one could imagine a wholesale market without hourly (or sub-hourly) pricing, and we must transition the distribution grid in a similar manner and send more precise price signals.

Granular time-based and location-based rates will also help integrate and harness the benefits of increased renewable energy that has limited production during peak loading periods, as well as EVs. In New York City, where many networks peak in the evening, the ability to time shift this clean energy to where it supports the local distribution grid for peak load reduction will help reduce costs for all ratepayers. Instead of curtailing renewables, developing more granular rate structures could support these periods of over supply more effectively by sending appropriate price signals to increase load to ensure more renewable integration. Although we are talking about distribution level rate design, it is important to recognize that the grid is connected and that this rate design can impact wholesale dispatch.

Over time, such a design will reduce the need to build new infrastructure, benefiting all customers. Therefore, we recommend a robust participation cap so as not to limit these long-term savings. Non-participating customers will also benefit from such a design if it leads to the deployment of more storage, and the wholesale savings and resilience benefits that will accrue. The benefits derived by the grid captured in the Accelerex study outweigh the costs shifted to other consumers that stay on more traditional rate structures

We agree with staff that these rate structures should be standardized across the state along with the interconnection process.

Finally, the Commission should also transition to dynamic pricing for reactive energy, and not just real. The value of reactive energy to help balance a local grid condition could be added into an hourly rate structure and reflect the dynamic variation that will be seen as more distributed

solar and storage emerge in the distribution system. As digital generation (inverter based) increases, the ability to respond to real (kW) and reactive power (kVAR) conditions becomes more achievable. Current rate designs minimally assign value to reactive power. In the case of distributed storage and solar power, all systems deliver power at unity power factor (kVA=kW, kVAR=0). In areas with substantial penetration, the power factor becomes an issue as the distribution system is required to deliver less kWs while still delivering the same amount of kVARs. This makes the system power factor more dynamic and has the potential of instigating voltage problems in various networks. As solar and storage systems begin to feedback into the grid, we will see reduction in real power while still requiring the grid to deliver kVARs. This will only last through the production period and revert to more normal ratios when the generation is reduced. More dynamic pricing for reactive energy will help address these issues and could be priced in hourly as the systems respond to the daily cycle dynamics.

Recommendations:

- The Commission should approve transitioning the delivery rate design from block periods to an hourly, location-based model, on an opt-in basis for customers

- The Commission should also transition to dynamic pricing for reactive power (kVAR) and not just real power (kW)

4.1.2 Commodity and Delivery Costs for Storage Charging and Discharging

Current rate design discourages storage development in three key ways. First, there are high fixed charges that often do not align with the costs a customer/battery imposes on the system. Second, there are demand charges in off-peak hours (outside of the CSRP call window) that exceed the costs that customers/batteries impose when they charge at those times. Third, contract demand charges are determined by the greater of what a storage resource exports to the grid, or imports from the grid, without consideration of the reliability needs in that area or the reasons for the export to the grid.

Together, this design threatens the economics of developing behind-the-meter and distribution-connected storage projects in New York. We are particularly concerned by the section of the Roadmap that states "In practice, this would result in the calculation of a contract demand charge that is the larger of the peak MW exported or the peak MW consumed." It seems counterintuitive for a utility to procure a Non-Wires Solution in a certain area, but through the contract demand charge penalize a storage resource for providing the exact service the utility is procuring (export to the grid during a peak period to reduce congestion). A far more efficient solution is to base contract demand on the amount of charging and not penalize the DER for delivering power at a higher level when it is supporting the grid by generating.

Recommendations:

Enel supports the perspective outlined by the Regulatory Assistance Project's paper on rate design (Smart Non-Residential Rate Design 2017) and the thought leadership from Brattle Group's Ahmed Faruqui.

- Metering and billing costs should be covered in fixed charges.
- The interconnection cost should only cover the cost of the service transformer and drop connecting to the building. This is a fixed cost and can be recovered as such.
- The variable daily demand charge should reflect the coincident peak charges for both the bulk and distribution system which have temporal, locational, and seasonal variations.
- The kW variable of contract demand charges should be a function of the maximum kW that a battery consumes from the grid.
- For distribution-connected resources, the cost of energy to charge a storage system should be based on the locational marginal based pricing that is established by the NYISO along with a fixed adder that covers the cost for delivery across the distribution system. This is similar to a fixed adder to a retail energy supplier's index rate design.

4.1.4 Carbon Reduction Benefits and Shaping the E Value in the VDER Value Stack

Enel supports staff's recommendations in this section and the suggested method for determining "E" from storage that charges from the grid.

Recommendations

- When coupled with solar, we suggest the ability to net out the daily energy stored and time shifted via the battery based upon a summation of building load, solar production, and storage operations to capture time shifted solar energy. We also recommend using the three-meter solution suggested in the current VDER rate and developing the appropriate methodology to capture the benefit. We plan continue our participation in the VDER working group as this rate continues to evolve.

4.1.5 Dynamic Load Management (DLM) Program Improvement

As an active participant in the DLM programs for several years, Enel supports the recommendations, especially an option for a multi-year DLM program participation agreement where terms of participation remain unchanged for a period. A longer-term agreement and pricing option could stimulate increased battery deployment and DLM participation. In determining the length of the term, we recommend that customers with batteries be eligible for the same seven-year pricing lock as suggested under VDER. The same logic of providing certainty to attract capital is applicable here. Customers without batteries

that are not making similar capital investments could be eligible for a shorter agreement, such as three years.

We caution against making major changes to the existing program structure for customers who wish to lock-in terms of participation for an extended period. However, we recognize that if a utility is going to place a greater value on a MW for system planning purposes if that MW has a seven-year contract, then it may be appropriate to reflect that in both determining compensation value and underperformance penalties.

The recommendation to create a "premium" auto-DLM resource category is interesting, but requires further discussion. Care needs to be taken to avoid an overwhelming number of program choices for customers. However, if such a program would serve a distinct, currently unserved purpose from the existing DLM program, it merits exploration.

Recommendations:

- Similar to VDER, create an option for a seven-year price lock for DLM program participants who deploy a battery

- We agree with the "path forward" and recommend that the Commission adopt the recommendations in a final Order. The only exception is that the "premium" auto-DLM resource category needs further exploration. Before utilities file to affect the DLM program changes, there should be collaborative discussion facilitated by the Commission with DR providers and utilities. Such discussions have proved productive in the past and saved time later in the process.

4.2 Utility Roles

4.2.2 IOU Business Model

Enel strongly supports staff's assessment that competitive ownership of storage is core to the principles of REV and the recommendation that "existing limitations on utility ownership should be maintained if possible." Since the Commission's Order on utility DER ownership, the competitive market has flourished and an increasing number of companies have dedicated resources toward building a nation-leading storage market in New York. Revisiting these limitations would jeopardize that investment.

While Enel shares staff's concerns regarding NYISO Buyer-Side Mitigation policies potentially serving as a barrier to entry, we caution against the recommendation to "reconsider whether utility ownership of storage could be a necessary option as a result of the de-facto absence of competitive capacity markets for storage resources." Our understanding is that it is

unnecessary for utilities to own energy storage in order for ratepayers to receive capacity value for energy storage resources that do not clear the NYISO capacity market. A third party could still own the storage, which is preferable for many third parties, and execute a bilateral contract for that storage with the utility or NYSERDA that would reduce the utility's load serving obligation. Therefore, we recommend against utility ownership, even in instances where there is the de-facto absence of competitive capacity markets for storage resources. If third parties no longer wish to own storage, then it would be appropriate to revisit, but we see that as unlikely.

Although not within the scope of this roadmap, Enel is intrigued by the concept of the ISO/DSO operating model as outlined in the "Two Visions" document authored by Paul De Martini, Lorenzo Kristof, and Jeffery Taft. It merits further exploration in future years.

4.3 Direct Procurement

4.3.1 IOU Procurement through NWAs

Enel strongly supports the concept of NWAs+. Instead of looking at NWAs in the silo of distribution planning, it considers the full range of energy bill benefits that ratepayers can realize from an NWA. We recommend that the utilities and the Commission adopt this framework in an expeditious manner.

Recommendations

Enel commends the work done by utilities in recent years to develop and improve the NWA process. In addition to the NWA+ idea, we recommend the following improvements:

- To date, the practice for NWAs is not to disclose the marginal cost of traditional wires solutions. We believe this negatively affects competition and is harmful to the broader storage/DER market. Our understanding of the utility rationale is that if developers know the price of the traditional solution, they will bid just under that traditional solution, instead of at their most competitive price possible.

  We respectfully disagree with this rationale, as competition amongst DER/storage developers is robust in New York, and when bidding, developers assume they are competing against other providers. Therefore, they are offering at their most competitive price. However, if a developer sees that the NWA is for a small amount of MW, they may automatically assume that the cost of the traditional solution is minimal, and do not even bother to bid. Alternatively, they spend significant resources to develop a bid and complete an RFP, with no idea if their bid is remotely competitive relative to the cost of the traditional solution. When they find out that it was not competitive,

there is significant frustration at having expended resources when there was never a chance of winning. This leads the developers to sour on the New York market in general, and be less likely to bid in the future.

Therefore, we strongly recommend that the NWA RFP detail the cost of the traditional solution. This allows developers to make rational decisions about which competitive procurements to bid on.

- We support the Roadmap's focus on hosting capacity, and the efforts by utilities to make this information public. Prior to the release of RFPs for NWAs, utilities should update hosting capacity maps and consumption statistics available for particular feeders/substations.

- With respect to finance, only fragmented information is available for developers on various tax abatement schemes (i.e. on real property), which can decrease project costs for the utility. Under the RFP for a particular NWA, we recommend that utilities have a link to the tax abatement schemes available in that local area.

4.3.3. Large Scale Renewables Procurement

As noted in our opening comments, the final set of policies that emerges from the Roadmap should take bold steps to stimulate the development of renewables + storage.

While the LSR six-point adder for storage is still in the early phases, we do not believe that it will result in a meaningful increase in renewables + storage. As the Roadmap appropriately recognizes "Co-locating storage with a renewable generator is not currently practical or rewarding due to NYISO market rules. If a developer found it most economical to develop a renewable generator with co-located storage to improve dispatchability, it would lose its favorable NYISO treatment as an Intermittent Generator, which is an area flagged for wholesale market recommendations." This calls into question the business case for developing a renewables + storage project in New York, absent a more robust state initiative.

Enel supports the "Clean Peak" actions, and provides further comments in that section. However, those actions will not stimulate meaningful development of renewables + storage, and we respectfully urge NYSERDA/DPS to take bolder action to stimulate the development of these valuable resources.

Core to REV is the recognition that not every MWh has the same value to the grid, and that cleaning or reducing the peak has significant reliability, resilience, avoided cost, and environmental benefits. With the establishment of the Clean Energy Standard (CES) in 2016,

which replaced the RPS, NYS doubled down increasing the MWhs of renewable energy. While a traditional MWh approach provides necessary energy, it does not create a market for the necessary, flexible energy storage capacity required to facilitate intermittent renewable generation or to time shift this energy production to the peak period of use. The likely retirement of peaker plants in Zone J only heightens the need for peak period capacity. The New York policy framework should therefore strive to fully harness the complementary nature of these renewable and storage resources, and not treat them in silos**.**

A direct procurement mechanism is necessary to stimulate the development of renewables + storage that will reduce or meet peak demand, strengthen reliability and resiliency, and avoid the need for fossil generation. It seems that staff concurs as one of the principles in the "Market Acceleration Incentive" section was:

> "Standalone storage and storage paired with intermittent renewables, on-site power, and energy efficiency should all be permitted. NYSERDA should develop any investment plans incorporating flexibility to reallocate funding within use cases (e.g., standalone vs. storage paired with generation) to ensure that the maximum amount of energy storage is deployed as market conditions and deployment factors change over the near- to medium-term. Recognizing the pending step down of the federal Investment Tax Credit, Staff recommends that NYSERDA move forward with submitting an investment plan chapter to DPS for a solar + storage bridge incentive that can begin funding these paired projects from already-approved Clean Energy Investment Funds."

A storage adder for NY-SUN will help stimulate development at end-use customer locations, but will not create bulk-level or distribution-connected opportunities. Below, we recommend an additional direct procurement mechanism.

Recommendation:

We recommend that New York State implement a program to procure resources, including renewables paired with energy storage, renewables, standalone storage, and demand reducing technologies and services, that can deliver clean energy during peak periods. We will refer to this as a "Clean Peak Procurement Mechanism" or "CPPM" and the compliance mechanism as a "Clean Peak Certificate" or "CPC."

Similar to the Large Scale Renewable (LSR) Solicitation, Enel proposes that NYSERDA continue to act as the central procurer of CPCs, with each CPC equaling 1 MWh of environmental attributes. To ensure that there is a source of CPCs and to provide revenue certainty, NYSERDA will enter into multi-year contracts and procure CPCs through annual solicitations. All load-serving entities should be obligated to procure and retire a proportion of their load through clean peak

resources via purchase and retirement of qualifying CPCs. Eligible resources include the following:

- New Tier 1 Renewables with a commercial operation date after January 1, 2019, that deliver into peak hours without installing an energy storage resource; or
- Existing Tier 1 or Tier 2 Renewables that install an energy storage resource to store and shift their energy production into peak hours; or
- Stand-alone energy storage resource that charges during low-emitting hours as determined by NYSDERA

The CPPM will allow participation by all three market segments (customer-sited, distribution system, and bulk system) and the LSE compliance obligation will guarantee deployment across NYS based on system needs. The NYSERDA administered LSR solicitation should be replicated for the CPPM because it is a proven and cost-effective method to achieve ambitious state goals and it is a known mechanism that is understood by many industry stakeholders.

The storage component of any resource that participates in the CPPM could be funded through the $350 M allocated for the bridge incentive, with the renewables portion funded through the Clean Energy Fund.

The Roadmap recognizes the value of taking advantage of the closing window for federal tax credits, and so we would urge that such a mechanism be developed and implemented by the middle of 2019. The §48 business energy ITC is equal to 30 percent of the basis that is invested in eligible property which have commenced construction through 2019. It then steps down to 26 percent for projects that begin construction in 2020 and 22 percent for projects that begin in 2021. After 2021, it drops to a permanent 10 percent. Under current federal tax law, battery systems that are charged by an eligible renewable energy system more than 75% of the time are eligible for the §48 business energy investment tax credit (ITC) under a narrow set of conditions and subject to recapture risks.

Enel looks forward to discussing this proposal in detail with staff.

4.4. Market Acceleration Incentive

Enel strongly supports a Market Acceleration Incentive and staff's underlying rationale for the incentive "to accelerate soft cost declines, and increase the market learning mechanisms for customers and for system operators by deploying and utilizing these assets today." Soft costs in New York are as high if not higher than any other place in the country, including navigating local, state, and ISO interconnection policies and procedures. The incentive will also reduce dependence on costly, dirty, inefficient energy infrastructure.

Recommendations

Enel supports NY-BEST's proposed design for the "Market Acceleration Incentive," and recommends that the Commission adopt this design in a final Order.

We also wish to underscore the following points for the design:

- The incentive should be available to any customer-sited, distribution-connected, and bulk-level storage device (available to store energy for later use)
- In order to qualify for receiving an incentive, the applicant would need to demonstrate site control, potential to finance, record of accomplishment, and be in the interconnection queue. The Commission should explore requiring financial assurance for those who receive incentives until their project becomes commercial to eliminate speculative behavior
- The Commission should establish milestones that those who receive incentives would need to meet in order to retain their incentive before commercialization, while recognizing that interconnection challenges can delay projects. The milestones should ensure that projects that are not progressing or have no chance of becoming commercial are not holding an incentive more deserving of another party
- While we caution against any onerous operational requirements, incentive recipients for customer-sited resources must demonstrate that they are using the battery either for demand charge management, participation in a utility program or tariff, or the NYISO market. The same would be true for a distribution-connected resource (including VDER or a NWA), with the exception of demand charge management. Recipients for bulk-level resources could demonstrate compliance through participation in the NYISO wholesale market or a utility contract that reduces the amount of capacity to procure.

4.5 Address Soft Costs Including Barriers in Data and Finance

4.5.1 Continue to Reduce Soft Costs

Enel strongly supports the Roadmap's emphasis on reducing soft costs, and urges the Commission and NYSERDA to remain vigilant in their efforts. We appreciate the effort in recent years by many stakeholders, including NYSERDA, to tackle soft costs.

Our most pressing concern with soft costs surround interconnection. <u>If issues around interconnection are not properly resolved in an expeditious manner, the rest of this document unfortunately becomes moot</u>. We recognize that stakeholders including the CUNY DG Hub and FDNY have been diligently working toward prescriptive requirements that will facilitate interconnections in a safe manner. Enel actively participates in and strongly supports that

initiative, and looks forward to prescriptive requirements being finalized as soon as possible. The lack of prescriptive requirements is a major barrier to the commercialization of energy storage in New York.

Regarding the utility's role in interconnection, Enel points to Con Edison as a strong role model for the utility process, in particular the responsiveness of staff, and educational initiatives such as webinars and forums.

Finally, we support increased focus on access to data. However, it is unclear how anonymized data will help connect DER providers and customers absent the customer volunteering to share their contact information.

Recommendation

To ensure anonymized data is useful, Enel recommends that customers can opt-in to sharing their contact information with qualified DER providers who have appropriate data protections in place and who have demonstrated a clear ability to develop new storage projects. REV Connect or Con Ed portals may serve as an appropriate platform for facilitating this matchmaking.

As applications for DER interconnections increase, it is important that utilities continue to have adequate engineering resources to process those applications in a timely manner. It will also be important for there to be as much transparency as possible regarding applications.

4.6 Clean Peak Actions

Enel supports the Roadmap's recommended Clean Peak Actions, although as noted in our comments on Section 4.3.3., more direct procurement mechanisms are necessary.

More specifically, we support the recommendations for:

- The series of Reliability and Operational Assessment Studies described in this section, and explicitly reviewing storage (including standalone) as an alternative for existing high-polluting and costly peaking units that may close due to pending DEC regulations
- Utilities (Con Ed, LIPA) developing a "Peaking Unit Contingency Plan;"

Recommendations

Enel strongly endorses the proposal from NY-BEST for a Clean Reliability Program and Clean Reliability Credit with a competitive procurement. This framework could serve as the "Peaking Unit Contingency Plan" and reduce dependence on dirty, inefficient, costly infrastructure while

maintaining and strengthening reliability. Since this would be for providing capacity, it should come from separate funding than the $350 M bridge incentive.

Given uncertainty around Buyer-Side Mitigation (BSM), it is unclear if storage will be able to clear the NYISO capacity market. Therefore, if the BSM rules unfairly prevent the development of storage resources in New York, Enel supports NYSERDA and the Commission exploring long-term bilateral contracts between storage developers/owners and utilities or NYSERDA for the entire capacity cost of the project, as opposed to just a portion as is proposed under the Clean Reliability Program. To be clear, Enel strongly prefers that storage owners/developers participate directly in the NYISO wholesale market, but it is prudent to have back-up options.

Under any scenario, third parties should continue to own the storage, and not utilities, and have the ability to monetize the storage in the NYISO energy and ancillary markets.

4.7 Wholesale Market Actions

4.7.1 Bulk System Focus

Enel supports the Roadmap's recommendations, and appreciates the active engagement of DPS and NYSERDA staff in the NYISO stakeholder process.

NYISO staff have expended significant effort to comply with FERC Order 841, and to integrate DERs into the wholesale market. However, we share DPS/NYSERDA staff's concerns on several critical NYISO design principles that could determine the viability of storage and DER participation in the wholesale market.

Recommendations

- Regarding the capacity value of energy limited duration resources, NYISO appears to use duration as the key determinant for capacity value, ignoring flexibility. With a grid moving to 50% renewable energy, and the need for fast ramping resources, it is inefficient to have a capacity market that values resources with long start-up times over resources that can start nearly instantaneously. This policy also directly contradicts state policy to move to a cleaner grid, as valuing long-lead time resources inherently favors dirty, inefficient, and costly fossil-fuel infrastructure. NYISO's position is that energy and ancillary markets are where this flexibility is valued. However, the capacity market drives investment in new resources. If storage is not valued in the capacity market, then it will undermine a key business case for building storage.

Enel recommends that the Commission and NYSERDA leadership urge the NYISO to reconsider its approach toward ignoring flexibility in the capacity market. Specifically, four-hour storage resources should have the same capacity value as any other resources. The state cannot meet its clean energy objectives through market-based mechanisms if the NYISO does not properly value storage in the capacity market.

- Consistent with the FERC Order in Docket No. EL16-92-000, **the NYISO should not count revenues received from retail programs and/or tariffs toward the minimum offer floor of DERs and ESRs.** The same logic in the Order that applied to Special Case Resources (demand response) in New York should apply to DERs and ESRs. In deciding that revenues received from retail programs should not count toward the offer floor in the wholesale market for SCRs, FERC stated "Further, the payments SCRs receive from the retail-level demand response programs are actually for providing services that are separate and distinct from the payments that SCRs receive for participating in NYISO's ICAP market. While the wholesale- and the retail-level demand response programs may complement each other, they serve different purposes, provide different benefits, and compensate distinctly different services [emphasis added]."

- Enel recommends that the PSC and NYSERDA advocate for NYISO to create an option for new resources in the NYISO capacity market to have a price lock for upwards of seven years. The price at which a resource clears in Year 1 would determine the price they received in Years 2-7 for that capability period. The Roadmap recognizes the value of increased price certainty by proposing to extend the VDER price lock from three to seven years and create a price lock for DLM. Extending the price lock to the NYISO level will create further certainty and help facilitate market-based investment in storage resources.

4.7.2 Dual Participation

Regarding dual participation, Enel recommends that the Commission and NYSERDA encourage the Commission to adopt the following principles:

- A DER/ESR should be eligible to provide any wholesale service for which it is not already being compensated for at retail

    - Therefore, if a DER/ESR is already receiving a wholesale capacity payment through a retail tariff/procurement (e.g. NWA +), it should still be able to sell into the NYISO energy/ancillary market provided it isn't receiving compensation for energy/ancillary through the retail tariff/procurement

- A DER/ESR that is participating in a retail tariff/procurement that does not include wholesale revenue streams should have no restrictions on wholesale market participation. If the DER/ESR participation in the retail tariff/procurement results in less capacity being procured for the NYCA, then similar to DR, there can be an add back for the MW equivalent of that reduction which would then allow the DER/ESR to sell ICAP

- With proper communication, NYISO and the TOs can address operational issues. A DER/ESR that is dispatched in real-time by a utility for a local reliability/peak shaving program can self-schedule in the NYISO market. Day ahead notifications are also common for certain utility programs, and can be reflected in NYISO day ahead bidding.

- Nothing in the ESR compliance filing should render dual participation impractical

Conclusion

Enel thanks NYSERDA and DPS staff for their hard work in completing the Roadmap, and the Commission for considering our recommendations before rendering a final decision. We look forward to collaborating with stakeholders to help make New York a national leader in energy storage deployments.

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