STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on the Motion of the Commission to Implement Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act	**)**	**Case 20-E-0197**

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. AND ORANGE AND ROCKLAND UTILITIES, INC.

COMMENTS ON INITIAL REPORT ON THE NEW YORK POWER GRID STUDY AND RESPONSIVE COMMENTS ON THE UTILITY TRANSMISSION AND DISTRIBUTION INVESTMENT WORKING GROUP REPORT

Consolidated Edison Company of New York, Inc. ("Con Edison") and Orange and Rockland Utilities, Inc. ("O&R;" together, the "Companies") respectfully submit these comments in response to the Commission's Notice[1] requesting comments on: (1) the Initial Report on the New York Power Grid Study, dated January 19, 2021 (the "Power Grid Study"), prepared for the New York Public Service Commission (the "Commission") by the New York Department of Public Service Staff ("DPS Staff") and the New York State Energy Research and Development Authority Staff ("NYSERDA Staff") with support and advice from the Brattle Group ("Brattle") and Pterra Consulting (together with Brattle, "Consultants") (the "Initial Report") and (2) "other relevant issues." For the Companies, the "other relevant issues" upon which they will comment include: (i) comments filed by parties[2] on the November 2, 2020 Utility Transmission and Distribution Investment Working Group Report (the "Utility T&D Report") in this proceeding;

[1] Case 20-E-0197 - Proceeding on Motion of the Commission to Implement Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act, Notice Seeking Comment (Issued February 3, 2021).

[2] In these comments, the Companies respond primarily to comments filed by the City of New York, LS Power Grid New York Corporation I ("LS Power") and NextEra Energy Transmission New York, Inc. ("NEETNY"), in each case on January 19, 2021, in this proceeding.

and (ii) the need for the Commission to make certain determinations at this stage, as requested herein, in order to move forward on CLCPA implementation.

In particular, for the reasons described herein, the Companies respectfully request that the Commission approve cost recovery of all Con Edison's Phase 1 transmission projects as Con Edison requested in the December 30th Petition.[3] In addition, as requested in the Utility T&D Report, Con Edison requests a Commission ruling that (1) clarifies Con Edison's proposed Phase 2 Clean Energy Hub projects[4] are "local" within the meaning of the Commission's May Order;[5] (2) prioritizes Con Edison's Clean Energy Hub projects within Phase 2 and, subject to (1), directs Con Edison to submit additional information with respect to them, beginning with NYC Clean Energy Hub #1, so they are authorized to proceed before NYSERDA's next Offshore Wind Request for Proposals; and (3) approves in its pending rate proceeding the Phase 1 projects O&R proposes.

I. BACKGROUND

Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act (the "Act"),[6] the Commission directed the three separate but related efforts that the Power Grid Study synthesizes – (1) the Utility T&D Study, (2) the Offshore Wind Integration Study and (3) the

[3] Case 19-E-0065, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service*, Petition of Consolidated Edison Company of New York, Inc. for Approval to Recover Costs of Certain Transmission Reliability and Clean Energy Projects (December 30, 2020) (the "December 30th Petition").

[4] While Con Edison seeks clarification that its three NYC Feeder Projects and Load Transfer Project are also "local" within the meaning of the May Order, we do not seek that clarification immediately.

[5] *See* Case 20-E-0197, *Proceeding on Motion of the Commission to Implement Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act* ("Transmission Planning Proceeding"), Order on Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act (May 14, 2020) ("May Order").

[6] New York Public Service Law §§ 162, 123 and 126.

Zero-Emissions Electric Grid in New York by 2040 Study[7] – to analyze the most efficient and cost-effective ways in which the State may accomplish its aggressive climate goals.[8] The Initial Report acknowledges that achieving the clean New York envisioned by the Climate Leadership and Community Protection Act ("CLCPA")[9] will require "unprecedented" transformational change and that "T&D infrastructure will play a critical role."[10] The Companies believe, as the Commission observed,[11] that the electric utilities are uniquely positioned to help advance the State's progression toward environmental sustainability. The Companies are eager to be the State's partner on this path. Indeed, it is only with close collaboration and coordination among the State's agencies and utilities and thoughtful infrastructure planning from the start that the State may efficiently effectuate the dramatic changes to its energy system that are necessary, while also maintaining safe, reliable, and affordable electric service for its residents.

The Utility T&D Study is the product of such collaboration. In the Utility T&D Report, the Companies, along with the other filing utilities, proposed to the Commission a portfolio of local transmission and distribution system ("T&D") projects – categorized based on their readiness (among other things) as Phase 1 and Phase 2 – to proactively prepare the electric grid to integrate renewable energy and support the State's climate mandates. Further, because Con Edison's Phase 1 transmission projects are also needed to meet local system reliability criteria, Con Edison filed

[7] The studies are included in the Initial Report as Appendices C, D and E thereto, respectively.

[8] Among the State's goals are: (1) 6,000 MW of solar generation by 2025, (2) 70% renewable generation by 2030, (3) 3,000 MW of energy storage by 2030, (4) 9,000 MW of offshore wind generation by 2035, (5) 100% emissions-free electric supply by 2040, and (6) 85% economy wide decarbonization by 2050. *See* fn. 9, *infra*.

[9] Climate Leadership and Community Protection Act ("CLCPA"), A.8429 (Englebright)/S.6599 (Kaminsky) (N.Y. 2019), *available at:* https://legislation.nysenate.gov/pdf/bills/2019/S6599.

[10] *See* Initial Report at p.1.

[11] *See* May Order at p. 5.

a petition seeking authorization for their cost recovery in a separate filing on December 30, 2020.[12] Similarly, O&R made a rate filing with the Commission on January 29, 2020 in which it requested funding for certain of its Phase 1 transmission projects.[13]

While the Companies stand firmly behind the value of and need for all their local T&D projects and urge prompt approval of their Phase 1 rate filings,[14] we are aware that the overall cost to customers of transitioning to clean energy may be substantial. The Companies understand that the Commission will consider such costs holistically, as local T&D upgrades represent only one category among several larger investments needed to achieve the State's climate goals (such as bulk transmission, large scale renewables, and storage and other balancing resources). Regardless of the precise path the State takes to meet its clean energy and clean air mandates, however, local transmission and distribution investment will be an essential, cost-effective enabler to create the requisite flexible system.

The Companies further observe that, when evaluating and prioritizing among CLCPA-driven projects, core reliability projects must remain the indispensable, inviolable priority. In fact, the high concentration of intermittent (comparatively low-capacity factor assets whose reliability benefit is incrementally reduced the more there are) renewable energy that is expected to occupy the State's future resource mix only underscores the criticality of continuing to proactively plan for and fund the State's electric system reliability needs. For these and other reasons, while we

[12] *See* December 30th Petition. The Phase 1 Transmission Projects are referred to in the December 30th Petition as the Transmission Reliability and Clean Energy Projects.

[13] *See* Case 21-E-0074, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Orange & Rockland Utilities, Inc. for Electric Service*, Base Rate Filings of O&R (January 20, 2021). Note that O&R did not identify any transmission or distribution projects in the Utility T&D Report for Phase 2.

[14] While both rate filings preceded the Commission's Order on Phase 1 Local Transmission and Distribution Project Proposals (February 11, 2021) in this proceeding (the "Phase 1 Order"), both comply with the Phase I Order's requirements.

acknowledge the Commission's request that utilities consider whether projects may be reprioritized within existing budgets, shifting existing rate case funds away from addressing reliability, safety, and compliance to instead meet CLCPA goals would not be advisable.[15]

II. EXECUTIVE SUMMARY

On January 19, the New York Department of Public Service filed the Initial Report, required under the Act, prepared by DPS Staff, NYSERDA Staff and their Consultants, that compiled and provided recommendations on the three study efforts, including the Utility T&D Study. The Companies provide additional information herein to supplement and clarify information on which the Initial Report recommendations are based and respond to comments on the Utility T&D Study by other parties, in each case as related to the Companies' projects.

Specifically, the Companies make three primary points herein. First, we emphasize that all Con Edison's Phase 1 transmission projects are fully studied, multi-value projects and that the Commission should approve Con Edison's pending petition to commence now as the best solutions to address violations of local system reliability criteria by the date they occur–including those violations that occur in Summer 2025 as well as in Summer 2023. We also pointed out in our petition that the projects will bring clean air benefits to environmental justice communities in the near term, and unbottle renewables when they arrive. Second, we advocate for the prioritization of Con Edison's Clean Energy Hubs within the Commission's Phase 2 process, noting that the Initial Report has confirmed the need for substation upgrades at locations electrically consistent with those Con Edison proposes, and that timely identification and development of interconnection

[15] *See* Transmission Planning Proceeding, *Order on Phase 1 Local Transmission and Distribution Project Proposals* (February 11, 2021) (the "Phase 1 Order") at p.17. The Commission states: "If projects are needed to meet CLCPA deadlines sooner than can be achieved through a utility's next rate filing, the utility may file a separate petition, as previously discussed. *However, the utility should consider whether projects can be repriorized within its current budgets before filing a petition for additional cost recovery.*" (emphasis added).

locations is critical to establishing New York's offshore wind resources in an organized, coordinated, and cost-effective way. Third, the Companies support the Initial Report's recommendation for approval of certain O&R Phase 1 transmission projects (but also promote inclusion of the O&R battery project at the Woodbury Substation) as well as for a Renewable Energy Zone in Sullivan County, and highlight the Companies' on-going use of advanced technologies in their identified distribution projects.

The Companies specifically request that the Commission (1) approve Con Edison's December 30th petition for cost recovery of Con Edison's Phase 1 transmission projects, (2) clarify that Con Edison's proposed Phase 2 Transmission Projects are "local" within the meaning of the Commission's May Order; (3) prioritize Con Edison's Clean Energy Hub projects within Phase 2 and (subject to item 2) direct Con Edison to submit additional information with respect to them, beginning with NYC Clean Energy Hub #1, so they are authorized to proceed before NYSERDA's next Offshore Wind Request for Proposals; and (4) approve in its pending rate proceeding the Phase 1 projects O&R proposes.

Further, while Con Edison acknowledges that priority Phase 2 projects should advance ahead of other Phase 2 projects, we reinforce the value of our identified three NYC Feeder Projects and Load Transfer Project and favor their selection and approval in the second round of Phase 2.

III. CON EDISON'S PHASE 1 TRANSMISSION PROJECTS

The Initial Report's recommendations question whether Con Edison's three Phase 1 transmission projects (i.e., the three PAR controlled feeders between (1) Rainey to Corona; (2) Gowanus to Greenwood and (3) Goethals to Fox Hills) merit Phase 1 treatment, suggesting instead that they require further consideration. The report concedes that while the projects are "likely

necessary to facilitate the retirement of load-pocket generation under the Peaker Rule"[16] and "would also support the State's transition to the 100 percent zero carbon emissions goal by 2040 and beyond,"[17] the projects are not expected to "have a significant role in achieving CLCPA goals until after 2030."[18] The report thus suggests that "only if the PSC wants to recognize the DEC NOx Peaker Rule as a statewide initiative that warrants cost sharing treatment similar to the projects with CLCPA benefits" should Con Edison's Phase 1 projects be credited with CLCPA benefits in the near-term.

As an initial matter, Con Edison notes that this report contention does not provide a basis for disapproval of Con Edison's pending petition for authorization to commence these projects. Indeed, the report acknowledges that these projects are necessary to maintain reliability. Nevertheless, Con Edison also points out here that the report's contention regarding CLCPA benefits is mistaken because the Peaker Rule does represent state policy consistent with the goals of the CLCPA. (Con Edison, however, did not, consistent with the projects' multi-value nature, request statewide cost sharing treatment for the projects.)[19] In fact, there are many problems with this recommendation in the report, as it failed to consider several critical factors. The Companies therefore urge the Commission to consider the supplemental information provided below and in Con Edison's December 30th Petition for approval of cost recovery of Con Edison's Phase 1 transmission projects.

[16] Initial Report at p. A-14.

[17] *Id.* at p.29.

[18] *Id.*

[19] We did and do request that the Phase 1 transmission projects be credited for their CLCPA justification, to the extent the Commission considers the costs of Phase 1 projects generally to be CLCPA costs.

A. Con Edison's Phase 1 Transmission Projects Bring Near-Term CLCPA Benefits.

First, the Commission should recognize the near-term CLCPA benefits that accrue from the State's adoption of the Peaker Rule because the Rule is state policy consistent with CLCPA goals.

As Con Edison noted in its December 30th Petition, the Phase 1 Transmission Projects provide clear, concrete, and nearly immediate CLCPA benefits. They enable the near-term retirement of downstate fossil fuel-fired "peaking" generating plants by solving the associated reliability needs thus created without the addition of new fossil-fueled power plants – which itself is a significant first step towards New York's clean energy future.[20] The Sierra Club, New York City Environmental Justice Alliance and UPROSE (collectively, "Environmental Parties"), agreed. Their recently filed comments on Con Edison's petition, states: "The TRACE [/Phase 1] Projects will enable the timely retirement of numerous outdated and highly polluting peaking facilities and obviate the need for more than a gigawatt of new fossil-fueled peaking capacity to be added in those Transmission Load Areas ("TLAs") making them the preferred solution under New York's path breaking Climate Leadership and Community Protection Act ("CLCPA")."[21]

Further, because the peaking units are in disadvantaged, environmental justice communities, facilitating their retirement will bring near-term air quality improvement to those communities on the worst quality air days – a key objective of the CLCPA. As the Environmental Parties state, "Through its adoption of the CLCPA, New York State has committed to …. a future that begins to correct for decades of unequal environmental harms from fossil fuel-based

[20] *See* December 30th Petition at p. 4.

[21] Case 19-E-0065, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service*, Comments of Sierra Club, New York City Environmental Justice Alliance, and UPROSE (March 2, 2020) ("Environmental Parties Comments") at p.3.

infrastructure. Peaking generation, particularly in the New York City area, has historically been placed in low-income communities and communities of color, frequently with inadequate process and public engagement. The CLCPA attempts to begin to correct this legacy … ."[22]

B. The Projects Will Also Unbottle Renewables and Facilitate Storage; The Precise Timing of When This Occurs Is Irrelevant.

In addition to such near-term climate benefits, Con Edison's Phase 1 transmission projects, the Initial Report concedes, are off-ramp projects that "will reduce state-wide renewable curtailments." The report, however, takes issue with the timing of when these benefits will be realized. It observes that renewable curtailment will occur only when the bulk system cannot absorb all renewable generation output, which it says is unlikely to occur before 2030 (when at least 30% of the State's generation is still sourced from fossil fuels, which can instead be backed down) but is more likely to occur thereafter as the State approaches 100% renewables by 2040. Because the renewable unbottling benefits associated with the added import capability into the load pockets is deferred, the Initial Report advises deferral of consideration of the projects.

The Initial Report's recommendations in this regard are too narrowly focused, as they fail to consider (1) that the projects are multi-value, needed to meet near term local system reliability needs, as well as (2) all the CLCPA benefits the projects provide.

Because Con Edison's Phase 1 transmission projects must be constructed and in-service by 2023 and 2025 anyway to meet local system reliability criteria and because the CLCPA benefits the projects will bring are real, the timing of when those benefits are realized (whether in 2030 or 2040) should not be relevant. Ultimately, the timing of renewable unbottling benefits will depend upon the maturity of New York's renewable supply portfolio, which is uncertain. But the electric system must be ready to integrate and deliver renewables, whenever they come, and these projects

[22] *Id*. *See also* December 30th Petition at p.4

will deliver renewables to dense load centers when they do. As the Environmental Parties stated, "investing in the system needs to achieve and support 100 percent zero carbon generation by 2040 must begin today."[23] Indeed, planning to achieve the 100 by 2040 goal cannot be deferred until 2030, as construction must be undertaken in stages to accommodate both internal resource and outage limitations, as well as to integrate renewables as they begin to appear on the New York bulk power system.

Con Edison further notes that its Phase 1 transmission projects may help to deliver storage resources connecting to its 138 kV system, thereby further facilitating achievement of the CLCPA's targets by potentially relieving the economic burden of substantial system deliverability upgrade costs that might otherwise be imposed on developers through the New York Independent System Operator Inc.'s ("NYISO") interconnection process. For all these reasons, the Commission should not follow the report and should approve Con Edison 's petition for approval of its Phase 1 transmission projects based on both their reliability and CLCPA justifications.

C. The Commission's Phase 1 Project Approvals Must Not Discriminate Based on Regional Diversity.

The Utility T&D Report defines Phase 1 projects as "projects that are immediately actionable projects that satisfy Reliability, Safety, and Compliance purposes but that can also address bottlenecks or constraints that limit renewable energy delivery within a utility's system."[24] Con Edison's Phase 1 transmission projects fit squarely within this definition. There is no legitimate basis on which to exclude them from the recommended list of Phase 1 projects simply because the needs that drive downstate projects differ from those upstate. The goals of the CLCPA

[23] *See* Environmental Parties Comments at p. 4.

[24] Utility T&D Report at p.1.

are statewide and the local T&D projects needed to achieve them are statewide. Accordingly, the Commission must accept regional differences to ensure that clean power reaches all customers throughout the state, and that the cost burdens of CLCPA compliance are borne equitably.[25]

D. Con Edison's Phase 1 Transmission Projects Require No Further Study. They Must Begin Now.

The Initial Report acknowledges that Con Edison's Rainey to Corona project is needed by 2023, and recommends the Commission review the project in the regular rate case process. With respect to the Gowanus to Greenwood and Goethals to Fox Hills projects, however, the Initial Report recommends the Commission consider "additional review" under an "expanded scope of analysis" to account for (1) bulk power use changes from offshore wind and new and existing upstate interconnections; (2) further determination of potential solar and storage capacity growth within the load pocket; and (3) optimization of the off-ramp capacity (beyond the use of standard 300 MW off-ramp capability) and location to facilitate offshore wind integration and provide increased CLCPA benefits at a lower cost per MW.[26]

Con Edison, however, has already considered each of these factors. Moreover, as described in Con Edison's petition, these projects are needed to meet local system reliability needs. The Commission should approve the petition now because these projects simply cannot be delayed.

1. Outage Challenges Require Schedule Contingency.

The Initial Report fails to appreciate that, although the required in-service date for these projects is in four years, constructing transmission projects downstate is a complex endeavor

[25] We note, however, that, contrary to the Initial Report's intimations otherwise, Con Edison did not request that the costs of its Phase 1 transmission projects be allocated regionally; rather, the December 30th Petition requested cost recovery from Con Edison customers, but that the projects be considered for their CLCPA justification to the extent the Commission considers Phase 1 project costs generally to be CLCPA costs.

[26] Initial Report at p. A-15.

requiring significant advanced planning and a schedule that includes contingency. This is particularly true in the load pockets at issue here, where four substations are involved and one of them – Fox Hills – must be rebuilt. This makes taking the necessary outages to accommodate construction challenging. The necessary transmission outages must be taken sequentially –during limited months because of limited available generation and transmission in the area. Further, should the available generation have an outage, the transmission outages (and corresponding construction work) would be delayed. These factors drive the need to commence these projects now.

2. Gravity of Reliability Need Reinforces Need for Schedule Contingency.

It is important to understand that both Gowanus to Greenwood and Goethals to Fox Hills projects are needed to address an N-0 deficiency of 360 MW in 2025 because of the unavailability of the peaking units to serve load. This means that deficiencies will occur in normal operating conditions – i.e., without requiring a contingency event to have occurred – underscoring the gravity of the reliability need. In other words, should these projects not be in service by their need date, customer disconnections would occur. This factor also, among others described below, drives the need to commence these projects now.

3. Delay Introduces Project Scope and Cost Uncertainty.

If Con Edison were to delay construction of these projects, their respective scopes and costs could, depending upon developer interconnections over which it has no control, change significantly. Any such occurrence could materially and adversely affect the company's ability to timely address the local reliability criteria violations on its system, which are its sole obligation to address. As noted above, the consequences of not meeting the need date would be severe.

4. The Projects are Multi-Value.

No further review of these projects is required because they are multi-value. Not only do they open pathways to integrate renewables, they also (as described in Con Edison's December 30th Petition and in NYISO's 2020-2021 Reliability Needs Assessment presentations) unbottle existing generation in Staten Island, bringing economic benefit, and they reduce bulk system needs.[27]

5. Con Edison Already Performed the Suggested Analyses.

Con Edison has already addressed each of the issues identified for further review of Con Edison's Phase 1 transmission projects, as described in the Utility T&D Study and the December 30th Petition. For example, as part of the coordinated planning effort with the other utilities, the Utility T&D Study included assumptions related to offshore wind and upstate interconnections; the projects have therefore already been modeled considering changes on the bulk power system from the injection of renewables.

In addition, use of solar and storage capacity in the affected load pockets (another area of inquiry suggested for analysis) is limited, due, among other things, to physical space constraints in New York City. As stated in the December 30th Petition, Con Edison considered storage as an alternative solution to the Phase 1 transmission projects and determined it not to be viable – not only because it cannot on its own solve the reliability need in the load pocket, but also because procuring storage, even as a partial solution, is challenging. Con Edison solicited storage solutions in the Greenwood load pocket as part of its 2019 Bulk Storage Solicitation and received no responses within that area that were either cost effective or capable of solving the reliability

[27] *See, e.g.*, NYISO Presentation to ESPWG/TPAS, *2020-2021 Reliability Planning Process: Post-RNA Base Case Updates* (February 23, 2021).

needs. Similarly, solar on its own would not be able to solve the needs, due to its intermittency. Indeed, the recent NYSERDA Clean Peak study indicated that none of the peaking units in the Astoria East TLA and only 10 out of 48 peaking units (short of what is needed to address the deficiency) in the Greenwood/Fox Hills TLA could be fully replaced with a combination of solar and storage.[28] To achieve those 10 replacements, storage units would be required to discharge at 125-150% of the capacity of peaking units being replaced and have the capability to sustain that output for 6 to 8 hours. Siting such a large amount of storage in a NYC load pocket will be challenging. In addition, the study bases replacement assessments on the actual historical operation of the peaking units in a single year: 2013. Current system design criteria are more stringent than 2013 conditions.

Finally, the Initial Report suggests analysis of optimizing off-ramp capability and location to improve cost effectiveness, implying that the use of standard equipment to obtain 300 MW of off-ramp may not be optimal. Such additional analysis is not needed, as Con Edison has already done it. The Initial Report fails to appreciate that Good Utility Practice[29] favors using cables, transformers, phase angle regulators and other equipment already in use. Indeed, use of standardized equipment provides cost and operating efficiencies, as it eliminates any need to carry inventory of additional spare equipment for atypical installations – which would impose additional costs to customers. Further, Con Edison seeks to optimize the equipment's rated capacity when it

[28] Case 18-E-0130 – *In the Matter of Energy Storage Deployment Program*, The Potential for Energy Storage to Repower or Replace Peaking Units in New York State (July 2019).

[29] FERC's Order No. 888 defines "Good Utility Practice" in Section 1.14 of the pro forma OATT as: "Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region."

is cost effective to do so, to avoid the inefficiency of future expenses associated with incremental expansions. As such, each of Con Edison's Phase 1 transmission projects adds approximately 300 MW of capability, not only addressing the immediate identified need, but also creating headroom that will continue to solve the need beyond 2030 and act as an off-ramp for the renewable energy. Finally, the location of the feeders is dictated by the reliability needs that drive them.

In short, there are no superior projects to Con Edison's Phase 1 transmission projects that solve local system reliability needs while also delivering renewable energy supplies to the load; there is no further analysis that is required; and approval and commencement of these projects cannot wait.

E. Con Edison's December 30th Petition Sets Forth All Information Necessary to Approve the Projects

Certain parties have requested that the Commission direct Con Edison to file more information on the projects, costs, and alternatives considered for its transmission plan.[30] Con Edison's December 30th Petition, which is the separate petition for cost recovery described in Con Edison's portion of the Utility T&D Report,[31] contains the information with respect to Con Edison's Phase 1 transmission projects that such parties seek and moreover complies with the informational requirements the Commission set out in its Phase 1 Order.[32] Con Edison filed that petition in its rate proceeding, as expressly permitted by its currently effective rate plan, following consultation with DPS Staff.

[30] *See* Transmission Planning Proceeding, Comments of New York City (January 19, 2021) at p. 2.

[31] *See* Utility T&D Report at p. 110, fn. 113.

[32] *See* Phase 1 Order at pp. 16-17.

IV. CON EDISON'S PHASE 2 TRANSMISSION PROJECTS

A. Con Edison's Phase 2 Projects are Needed to Feasibly and Cost-Effectively Integrate 9,000 MW of OSW

In its section of the Utility T&D Report,[33] Con Edison identified the need for local upgrades in New York City to accommodate the interconnection of offshore wind generation ("OSW"). To achieve 9,000 MW of OSW in New York by 2035, the offshore generation will need to connect to New York City and/or Long Island. Together, Con Edison and Long Island Power Authority (LIPA), identified in the Utility T&D Report an optimal plan to accommodate the injection of OSW into the two service territories, considering local transmission constraints. The plan identified two Clean Energy Hubs that provide cost-effective interconnection points for offshore wind directly on to the 345 kV system, while simultaneously addressing local system constraints. Con Edison proposes to connect OSW directly to the free flowing 345 kV system because that system is best able to accommodate the magnitude of the required injections. However, because New York City's existing Transmission System is limited in its expandability, with limited bus positions in existing substations and limited locations to construct additional transmission substations, local upgrades will be required to interconnect new generation to the 345 kV system. Con Edison's proposed Clean Energy Hubs address these issues, leveraging upgrades to existing infrastructure and synergies with distribution system needs.

Specifically, Con Edison proposed two Clean Energy Hubs: New York City Clean Energy Hub #1 and #2. New York City Clean Energy Hub #1 is a cost-effective project that would create points of interconnection ("POIs") for new resource interconnections, such as OSW (for approximately 4x750 MW connections or 3,000 MW total) and could be placed in commercial operation by Summer 2027. New York City Clean Energy Hub #2, meanwhile, creates POIs for

[33] Utility T&D Report at pp 103-115.

two new connections (each for a 750 MW connection, or approximately 1,500 MW total), and simultaneously transfers load from three other constrained load pockets on Con Edison's 138 kV system. This enables renewable resources to access the un-constrained load transferred out of the constrained Con Edison's 138 kV system and reduce the load's dependency on local fossil fuel power plants to maintain local system reliability. This second Clean Energy Hub project could be placed in commercial operation by Summer 2029.

Con Edison proposed these projects for Phase 2 because they are driven by CLCPA goals, and not to satisfy reliability, safety, or compliance needs. Con Edison highlighted in the Utility T&D Report, and reiterates here, that these offshore wind hubs must be prioritized to be among the first of the utilities' local T&D Phase 2 projects to proceed because their timely approval and construction will allow for State-utility coordination, provide needed certainty to offshore wind developers regarding viable interconnection locations, facilitate the most competitive and efficient response to any future offshore wind solicitations, and timely satisfy the CLCPA's renewable and offshore wind goals most cost effectively and efficiently.

B. Con Edison Does Not Seek "Pre-Approval" of Projects

Con Edison further clarifies that the intent of its requests in the Utility T&D Report was not to seek immediate direct approval (or "pre-approval") for cost recovery of its Phase 2 transmission projects as some parties have interpreted,[34] but rather that its Phase 2 transmission projects receive priority within the Commission's overall consideration of Phase 2 Projects when the Commission evaluates them. Con Edison recognizes that a further process is required for Phase

[34] Con Edison asked that: "The Commission approve each of the six projects identified in Figure 45 for cost recovery, and direct the construction of such projects, starting first with the NYC Clean Energy Hub #1. In evaluating Phase 2 projects, NYC Clean Energy Hub #1 should be among the first projects to advance, due to the need to create POIs in advance of generation to produce the most cost effective, efficient solutions for all New Yorkers." Utility T&D Report at p. 115.

2 projects generally, as the Utility T&D Report states. Nevertheless, Con Edison requested in its portion of the Report and repeats its request here that the Commission rule that Con Edison's proposed Phase 2 transmission projects are "local" projects as set out in the Commission's May Order. Indeed, while Con Edison described its Phase 2 transmission projects conceptually in that report, Con Edison is ready to move forward with the design and engineering of these projects. A Commission order that so ruled would thus provide the clarity necessary to conduct the Phase 2 process.

C. The Initial Report Affirms the Need for Upgrades in New York City to Interconnect OSW.

Consistent with the findings of Con Edison's study, summarized above, and the OSW Integration Study commissioned by NYSERDA, the Initial Report confirms the need to "identify feasible and cost-effective OSW interconnection-related substations and local transmission upgrades in the New York City area" by 2030.[35] Specifically, the OSW Integration Study identified a potential interconnection plan for 9,000 MW of OSW. While that study did not identify the need for any specific upgrades (because the OSW Integration Study was conceptual only) and therefore did not evaluate physical feasibility of its suggested interconnection points, it acknowledged that substation upgrades in Zones I, J, and K may be required to interconnect the full amount of offshore wind at those identified POIs. The Initial Report similarly recognizes the need for "extensive coordination of individual rounds of OSW procurements and interconnection processes,"[36] acknowledging that physical space limitations at New York City substations could be a significant additional cost not considered in the OSW Integration Study, but which was

[35] Initial Report at p 2.

[36] *Id.* at p 63.

considered in Con Edison's analysis. Con Edison's proposed Clean Energy Hubs – while electrically consistent with the interconnection points identified in the OSW Integration Study – also simultaneously address physical feasibility issues, which is critically important.

Further, the interconnection plan identified by the OSW Integration Study relies on strategic siting of storage that may not be realistic. That study assumed 1,500 MW of energy storage in 2025 and 3,000 MW in both 2030 and 2035.[37] Of this latter amount, 1,194 MW of the storage was assumed to be sited in New York City.[38] The Zero Emissions Study incorporated similarly ambitious storage goals: 4,000 MW in New York City by 2040.[39] These are lofty assumptions. In fact, siting and interconnecting storage in New York City could prove difficult, as even the Initial Report accepts that optimizing storage investments as assumed in the two studies may be a challenge.[40] Of course, the justification for Con Edison's Phase 2 transmission projects becomes even more striking to the extent the State studies' ambitious assumptions on storage cannot be accomplished.

Despite these findings, however, the Initial Report does not identify Con Edison's Clean Energy Hubs among the list of utility Phase 2 projects to be prioritized nor does it recognize the need for land and interconnection facilities to accommodate energy storage. In our view, this is a mistake. As further described below, the Commission should recognize that rapid, impactful gains in the race to achieve a clean, sustainable energy system begins with a strong partnership between the State and the utilities it regulates. For each of the reasons discussed herein, the Commission

[37] *Id.* at p D-13.

[38] *See* New York Offshore Wind Integration Study Presentation, Technical Conference (Nov. 23, 2020), slide 9.

[39] Initial Report at p 63.

[40] *Id.*

should issue an order ruling that Con Edison's New York City Clean Energy hubs are local projects and, subject to the review of additional information necessary to evaluate them, prioritize these projects to advance so as to coordinate their timing with future OSW solicitations.

D. Timely Approval of the Clean Energy Hubs is Required to Improve Results in Future NYSERDA OSW RFPs

Con Edison agrees with the conclusion of the Initial Report that coordination is required to identify cost-effective interconnection and local transmission solutions for offshore wind. In fact, Con Edison and LIPA consulted with DPS Staff and NYSERDA Staff to develop an optimized OSW interconnection and local upgrade plan, the results of which is reflected in the Utility T&D Study. The Initial Report largely confirms this optimized plan: connecting 6,000 MW of OSW to New York City and 3,000 MW to Long Island and affirming – electrically – the contemplated locations of interconnection. The Commission should accept these results as the optimal plan to integrate offshore wind generation in the State and take the steps that are necessary or appropriate to advance the local T&D upgrades downstate such that they may be undertaken in coordination with NYSERDA's planned procurements between now and 2027. Certainly, the best way to assure that integration of OSW is optimized and orderly is to prioritize the approval, at a minimum, of the first of Con Edison's proposed New York City Clean Energy Hubs during Phase 2.

Offshore wind developers need clear signals about the optimal places to interconnect in New York City. Waiting for these issues to be resolved through the NYISO interconnection process will only result in added time and cost towards meeting the CLCPA offshore wind goal. In addition, Tier 4 project developers will also need interconnection points in New York City. For both types of projects, the most efficient interconnection strategy, due to the size of the anticipated connections, is to utilize the 345 kV system's limited downstate connection points. Smaller resources, such as storage, are better suited to interconnecting on the 138 kV system. However,

due to the space limitations and cost of real estate in New York City and the complexity of the Con Edison system, alternative interconnection points are limited, are likely more costly for OSW to interconnect to, and likely will result in additional constraints limiting the usability of the OSW. To solve this problem, Con Edison proposed the Clean Energy Hubs to provide direct connections to its 345 kV system for OSW (or Tier 4) resources and will look to identify comparable 138 kV locations to interconnect storage and other smaller resources as part of a subsequent phase. Approving the Clean Energy Hubs would provide clear signals to offshore wind developers on where to interconnect. Developers should have this information before they bid into a NYSERDA RFP, potentially reducing their costs.

E. Con Edison is Best Suited to Develop Local Transmission Solutions in New York City

As noted above, the Initial Report is silent on next steps for Con Edison's proposed NYC Clean Energy Hubs, noting only that developers may be able to propose solutions to the physical space limitations in New York City. Certain independent transmission developers also argued in comments submitted on the Utility T&D Report that Con Edison's projects should not be considered local transmission and should instead be addressed through the relevant NYISO processes because they are at the 345 kV voltage level.[41] Con Edison disagrees. Its Clean Energy Hubs fall squarely within the Commission's definition of "local" transmission as set out in the May Order: "transmission line(s) and substation(s) that generally serve local load … ."[42] Con Edison's proposed projects are substations that serve local load, and are located wholly within its service territory, and thus satisfy the Commission's definition. Accordingly, the Commission

[41] See Transmission Planning Proceeding, Comments of LS Power and Comments of NEETNY (January 19, 2021).

[42] May Order at p. 3, fn. 4.

should timely declare, as requested in the Utility T&D Report, that these projects are local projects. This will help to enable their expedient and cost-effective implementation in advance of the anticipated in-service dates of OSW.

To be clear, Con Edison supports the use of competitive processes, where appropriate, to procure bulk transmission solutions and arrive at cost-effective solutions for customers. With respect to offshore wind, competitive processes can most effectively be utilized to procure both the renewable generation and the underwater transmission lines to shore. These competitive processes should be coordinated with the local TOs to address interconnection and integration with the existing onshore system. Con Edison, however, is best suited to identify the optimal POIs on its system and has been working with the State to identify these points. The Commission should therefore confirm that the NYC Clean Energy Hubs are "local" without delay to ensure that the State's goals for both OSW and renewables may be timely and cost-effectively achieved.

V. CON EDISON PHASE 1 AND 2 DISTRIBUTION PROJECTS

A. Leveraging Advanced Technologies Alongside Traditional Infrastructure, Con Edison's Phase 1 Distribution Projects Receive Initial Report Support

Con Edison appreciates the Initial Report's support for its distribution plans as described in the Utility T&D Report. Con Edison's planning for the distribution system uses advanced technologies and Non-Wires Solutions (NWS) alongside traditional infrastructure to meet the changing and growing demand for electricity expected to result from electrification. Many of these investments, including several already funded, utilize advanced technologies that will prepare the system for distributed energy and storage while meeting expected future increases in load from electrification and electric vehicles — important components of New York's clean energy future.

For example, the Fox Hills Energy Storage Project, EV make-ready program, Distributed System Platform (DSP) enhancements, and Vinegar Hill Distribution Switching Station (DSS)

projects described in the Utility T&D Report are foundational investments Con Edison has already committed to implement to integrate new technologies into its system and prepare for the clean energy future. Con Edison's activities in downtown Brooklyn are illustrative. In 2017, Con Edison had identified solutions to address both near and long-term system deficiencies resulting from rapid load growth there. Small load relief traditional projects, like substation cooling, satisfied substation deficiencies that were projected to occur as early as 2019 while enabling us to focus on utility infrastructure projects that can address longer-term needs in the load pocket. Currently, Con Edison is implementing an NWS portfolio to eliminate the need for substation cooling until the long-term solution, the Vinegar Hill Distribution Switching Station, enters service (expected in 2022). The Vinegar Hill DSS utilizes advanced engineering design, including phase angle regulation and system reconfiguration, to de-load equipment under peak load contingency conditions to add capacity at two existing substations. This will enable us to flexibly serve loads and accommodate changing system dynamics to meet future load growth, deferring the need for a more expensive traditional substation investment.

Other Con Edison Phase 1 distribution projects equally leverage advanced technologies. For example, Con Edison describes five new energy storage projects, where we plan to optimize grid needs by siting batteries in areas of increasing distributed generation (DG) penetration to increase hosting capacity and shift mid-day DG production to manage system peaks that occur later in the day.

Con Edison's planning for the distribution system will continue to use advanced technologies and Non-Wires Solutions (NWS) alongside traditional infrastructure to meet the changing and growing demand for electricity expected to result from electrification, as

stakeholders support[43]. Con Edison looks forward to further engagement with the Commission and stakeholders on these projects in our next rate proceeding.

B. The Proposed Incremental DSP Program Investments Support the CLCPA, Have Support from Key Stakeholders, and Should be Approved in Con Edison's Next Rate Case

While the Initial Report largely supports Con Edison's distribution projects, it requests additional information regarding Con Edison's proposed Distributed System Platform incremental investments. Con Edison's DSP budget has integrated and will continue to integrate new technologies into the distribution system. These investments will become more and more important as the distribution system experiences the addition of storage and other clean energy resources, and ultimately to meet increased load growth from electrification to meet the CLCPA's 100x40 goal. In this way, these programs fit fully within the concept of Phase 1 – projects the utilities are pursuing already under our capital plans, but that also provide material CLCPA benefits.

Recent DSP investments have included investments to modernize protective relays, invest in software and data efforts to catalogue the Distributed Energy Resources (DER) on the system for better monitoring and optimization (Distributed Energy Resource Management System or DERMS), and integrate growing smart inverter functionality into our system. Protective relays are one of the more significant barriers to interconnecting resources to the distribution system, and upgrades can allow for more DG – including distributed solar and storage – to be interconnected at lower cost. Con Edison continues to prioritize locations where DG queues and penetration levels are increasing. This prioritization increases hosting capacity in the network to benefit future DG interconnections. Many locations can be equipped with Supervisory Control and Data Acquisition (SCADA) so that our operators have greater situational awareness, as well as the ability to remotely

[43] See, e.g., Transmission Planning Proceeding, *Comments of the City of New York* (January 19, 2021) at p. 3.

operate the devices. This ability can decrease the need to send utility workers to various locations and will decrease O&M cost over time.

Con Edison will request incremental funding to the existing DSP budget in its next rate proceeding to further fund on-going projects and programs, such as the Modernizing Protective Relay upgrades, continued DERMS efforts and upgrades to hosting capacity tools as well as invest in future needs pertaining to monitoring control and the communications infrastructure necessary to facilitate smart inverter functionality and the reliable participation of DER in NYISO's wholesale markets. A main component of continued monitoring and control efforts will be ongoing work to expand the deployment of smart inverter functionality. These continued investments have been highlighted by stakeholders in the DG community as necessary to continue to drive down the barriers to interconnection within utility service territories. New York Solar Energy Industries Association, in their comments, recommend that utilities not only continue to invest in distribution programs that increase hosting capacity but also in advanced technologies, such as DERMS, that will allow utilities to optimize DG utilization and capitalize on advanced smart inverter functionality.[44] Con Edison incorporates both use cases into their continued DSP portfolio of investments. Ultimately, this will enable interconnection of greater amounts of storage and solar to the distribution system, in support of the CLCPA's mandates.

VI. O&R PHASE 1 TRANSMISSION AND DISTRIBUTION PROJECTS

A. The Initial Report Supports O&R's Multi-Value Projects

The Initial Report identified O&R's service territory as particularly well-suited to the siting of solar and energy storage projects due to the availability of open spaces. O&R agrees, as recent

[44] Transmission Planning Proceeding, *Comments of New York Solar Energy Industries Association Regarding Motion of the Commission to Implement Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act* (January 18, 2020) at pp. 6-7.

interest from project developers in the NYISO interconnection queue affirms. In developing its section of the Utility T&D Report, O&R used a flexible approach to identify projects in its long-term (10-20 year) capital plan that could be accelerated to support integration of renewables. These projects will replace obsolescent infrastructure, support load growth, and enable integration of renewables, storage, and other DERs.

The Initial Report also recommends approval of several of O&R's Phase 1 transmission and distribution projects. O&R agrees with and supports the recommendations for its projects. Consistent with those recommendations, O&R included several of its Phase 1 projects in its most recent rate filing.[45] O&R anticipates that its other identified projects will be proposed and funded through subsequent rate cases, consistent with their respective proposed in-service dates. The table below identifies O&R's projects, those recommended by the Initial Report, and those included in O&R's recently filed rate case.

Project Name	Project Description	Proposed I/S Date	Net MW Benefit	Power Grid Study Recommendation	Included in Rate Case?
Transmission					
TL Lines 12 & 13/131	Upgrade of 69kV Transmission Lines 12 & 13/131	2027	108	Recommended	Yes
Shoemaker Station Upgrade	New 138 kV and 69 kV air insulated stations	2028	-	Recommended	
Western Division 34.5 kV System	Upgrade of 34.5 kV Western Division sub-transmission system	2029	50	Recommended	
TL Line 18 to 69kV	Upgrade of 34.5kV Line 18 to 69kV	2030	99	Requires Further Consideration	
TL Lines 24/241 & 25	Upgrade of 69kV Transmission Lines 24/241 & 25	2033	98	Requires Further Consideration	
TL Lines 26 and 261	Upgrade of 138kV Transmission Lines 26 and 261	2036	144	Requires Further Consideration	

[45] See Case No. 21-E-0074, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Orange and Rockland Utilities, Inc. for Electric Service*.

Distribution					
Blooming Grove Station	Upgrade of Blooming Grove Station	2023	51	Recommended	Yes
Woodbury Station	Upgrade of Woodbury Station	2025	76	Recommended	Yes
Shoemaker Station	Upgrade of Shoemaker Station	2028	41	Recommended	
Westtown 2nd Bank	2nd bank at Westtown Station	2030	18	Recommended	
Bullville Station	Upgrade of Bullville Station	2027	33	Recommended (Conditional)	Yes
Wurtsboro Station	Upgrade of Wurtsboro Station	2029	30	Recommended (Conditional)	
Bloomingburg Station	Upgrade of Bloomingburg Station	2030	38	Recommended (Conditional)	
Rio Station	Upgrade of Rio Station	2030	21	Recommended (Conditional)	
Woodbury Batteries	Utility Owned battery to support growth in the area.	2023	-	Requires Further Consideration	Yes

Moreover, O&R continues to explore ways to deploy advanced technologies as part of its capital plans. Similar to Con Edison, O&R has deployed projects through its distribution plans for improved situation awareness, including the Advanced Distribution Management System (ADMS) and Distribution Automation Smart Grid projects, which contribute to a smarter and more resilient grid. O&R will evaluate deployment of advanced technologies and storage with its Phase 1 projects where appropriate. For example, O&R utilizes transformer monitoring in both transmission and distribution substation transformers which will be supported where applicable in the proposed Phase 1 projects. In addition, as described further below, O&R proposes to incorporate energy storage capabilities on the site of the proposed stations as a hybrid solution mixing traditional and new technologies.

B. O&R's Woodbury Substation Merits Phase 1 Prioritization.

With respect to projects for which the Initial Report recommends additional consideration, O&R notes that the proposed batteries at O&R's Woodbury Substation should be prioritized under Phase 1. This project helps achieve the CLCPA goals for storage and fits into O&R's "hybrid approach" to future substation design, allocating space and infrastructure for on-site storage (which can be re-purposed). It represents one of the many ways O&R is committed to implementing advanced technologies on its system, as a key part of the solution to meeting CLCPA. This project was included in O&R's rate case filing, and O&R looks forward to further discussion with stakeholders on the benefits of the project through that proceeding.

C. O&R Supports Identification of a Renewable Energy Zone in Sullivan County

The Initial Report also proposes the identification of a Renewable Energy Zone in Sullivan County, noting the potential for greenfield renewable development in the area.[46] O&R agrees with the proposal to create a REZ in the area. Although O&R has not yet seen renewable project applications in this portion of its service territory as of this writing, the lower Sullivan County is an area of likely future interest for renewable projects due to its open spaces and relative proximity to load. Accordingly, O&R anticipates an increase in project inquiries and development in the coming years.

In moving forward with a REZ in Sullivan County, the Commission should first consider whether local projects can provide the anticipated level of headroom required. For example, some of O&R's projects included in the Utility T&D Report, such as O&R's proposed upgrades to the Western Division 34.5 kV System, will help to create this headroom. In fact, the Initial Report recommended the project to proceed under Phase 1. Because Sullivan County could attract more

[46] Initial Report at p. 40.

development in the coming years if it is designated as a REZ, upgrading the 34.5 kV system to a more robust 69 kV system could provide appropriate additional headroom to integrate these future renewables. O&R could work with DPS Staff and stakeholders to determine the appropriate scale of upgrades in the area when the project is brought forward in a subsequent rate filing based on the anticipated scale of renewable development there. O&R looks forward to collaborating with DPS Staff to define the criteria applicable to and the impact of REZ designation.[47] In addition, with the recommendation for a REZ, O&R's proposed upgrades to Line18 and Rio substation upgrade would also provide significant CLCPA benefits by improving transmission reliability and headroom in that zone. These projects can also be considered through future O&R rate cases.

VII. CONCLUSION

As noted above, the Commission's Notice stated that parties may file comments on the Initial Report and "other relevant issues." The Companies respectfully submit these comments.

For the reasons described herein, the Companies respectfully request that the Commission approve cost recovery of all Con Edison's Phase 1 transmission projects as Con Edison requested in the December 30th Petition. In addition, as requested in the Utility T&D Report, the Companies request a Commission ruling that (1) clarifies that Con Edison's proposed Phase 2 Clean Energy Hub projects are "local" within the meaning of the Commission's May Order;[48] (2) prioritizes Con Edison's Clean Energy Hub projects within Phase 2 and, subject to (1), directs Con Edison to submit additional information with respect to them, beginning with NYC Clean Energy Hub #1, so they are authorized to proceed before NYSERDA's next Offshore Wind Request for Proposals; and (3) approves in its pending rate proceeding the Phase 1 projects O&R proposes.

[47] *See* Transmission Planning Proceeding, Comments of the Joint Utilities (March 22, 2021) at pp. 13-15.

[48] While Con Edison seeks clarification that its three Phase 2 NYC Feeder Projects and Load Transfer Project are also "local" within the meaning of the May Order, we do not seek that clarification immediately.

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Respectfully Submitted,

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