

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on April 20, 2023

COMMISSIONERS PRESENT:

Rory M. Christian, Chair
Diane X. Burman
James S. Alesi
Tracey A. Edwards
John B. Howard
David J. Valesky
John B. Maggiore

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.

ORDER APPROVING COST RECOVERY FOR CLEAN ENERGY HUB

(Issued and Effective April 20, 2023)

BY THE COMMISSION:

INTRODUCTION

Consolidated Edison Company of New York, Inc. (Con Edison or Company) filed a petition on April 15, 2022 (Petition), seeking authorization to recover the costs associated with the Brooklyn Clean Energy Hub (Hub or Project) - a proposed transmission substation that would be sited on property owned by Con Edison in northwest Brooklyn, adjacent to the East River. Through its Petition, Con Edison also asks the Commission to allow cost recovery for the Hub to be calculated volumetrically on a load ratio share basis, consistent with the Commission's Phase 2 Order in this proceeding. Con Edison bases its request for Phase 2 cost allocation and recovery on the assertion that, by supporting points of interconnection (POIs)

for 6,000 megawatts (MW) of offshore wind energy, the Hub is necessary to achieve the renewables targets specified under the Climate Leadership and Community Protection Act (CLCPA).¹

On December 13, 2022, Con Edison filed a supplement to the Petition (Supplement), in which the Company proposes what it terms a Scalable Reliability version of the Hub aimed primarily at meeting a projected local reliability need, which the Company expects to arise in the summer of 2028. Con Edison states that the Scalable Reliability version would be less expensive to build than the version of the Hub proposed in the Petition and would support POIs for only 1,500 MW of energy into the New York City transmission grid. The Supplement specifies that, should the Commission determine that Phase 2 cost recovery is not available for the Scalable Reliability version of the Hub, then it should allow the Company to recover the costs initially from Con Edison's customers, either through a surcharge or in base rates, depending upon when the Project comes into service.²

For the reasons discussed below, the Commission denies the Petition based on the lack of record evidence showing that the Hub can be feasibly used as a POI for 6,000 MW of offshore wind energy. However, the Commission grants the Petition, as modified by the Supplement, insofar as agreeing that the proposed Scalable Reliability version of the Hub is primarily needed to meet local reliability requirements. Accordingly, the Commission authorizes a surcharge to be added to the bills of

¹ See Case 20-E-0197, Petition of Con Edison for Approval to Recover Costs of Brooklyn Clean Energy Hub (filed April 15, 2022), (citing Order on Local Transmission and Distribution Planning Process and Phase 2 Project Proposals, (issued September 9, 2021) (Phase 2 Order)), pp. 1-2.

² Con Edison Petition Supplement to Propose an Alternative Brooklyn Clean Energy Hub (filed December 13, 2022) (Supplement).

Con Edison's customers for the purpose of recovering the carrying costs associated with the Scalable Reliability version of the Hub after it is placed into service and until such costs are reflected in base rates. The Commission also authorizes Con Edison to file a separate petition seeking an alternative cost recovery mechanism no later than one year prior to completion of the Scalable Reliability version of the Hub, in compliance with the conditions established in this Order.

BACKGROUND

January 2022 Order

Through its Order on Power Grid Study Recommendations, the Commission authorized Con Edison to file a petition addressing the Hub.³ Based on information provided by Con Edison, the Commission noted that the Hub would be "built on real estate owned by Con Edison and located in northwest Brooklyn adjacent to the Farragut substation, would be electrically tied to substations serving major population centers in Brooklyn and Manhattan."⁴ Given the difficulty of finding feasible and cost-effective POIs in New York City, the Commission determined that the "Hub appears to be a potential solution for offshore wind generation injected into New York City."⁵ Based on this preliminary determination, the Commission authorized Con Edison to file a petition addressing the criteria outlined in the January 2022 Order.

The January 2022 Order required Con Edison to explain in the Petition the specific bases for: (1) "the project's ability to both accommodate energy from offshore wind and inject

³ Order on Power Grid Study Recommendations (issued January 20, 2022) (January 2022 Order), pp. 17-24.

⁴ Id., pp. 21-22.

⁵ Id., p. 22.

such energy into the New York Control Area"; and (2) "the feasibility ... of routing an AC [i.e., alternating current] transmission line from the converter station to the Con Edison Hub."⁶ With respect to this information, the Order specified that Con Edison "should give due consideration to where the converter stations associated with [offshore wind transmission] lines would be located and whether or not the proximity of such converter stations to the Con Edison Hub has logistical and/or cost impacts that may make interconnecting into the Con Edison Hub infeasible or cost prohibitive."⁷ In addition, the Order required Con Edison to provide, among other things, "[a]n engineering cost estimate associated with" the Hub proposal, as well as an evaluation of "co-benefits, including those related to reliability, redundancies, and resiliency, and the monetization of such benefits, if feasible," alternatives to the Con Edison Hub, and discussion on its proposed use of advanced technology.⁸

Con Edison's Petition

As noted, Con Edison filed the Petition on April 15, 2022. The Petition starts by noting that, because the purpose of the Hub is to "capture CLCPA benefits," the Commission's approval of the Hub would be "consistent with the directives of the Phase 2 Order" and thus the costs associated with the Project "should be allocated statewide on a volumetric load ratio share basis."⁹ The Petition provides a high-level understanding of the topology of the existing portion of Con Edison's local 345 kilovolt (kV) transmission system, and where

⁶ Id., p. 23.

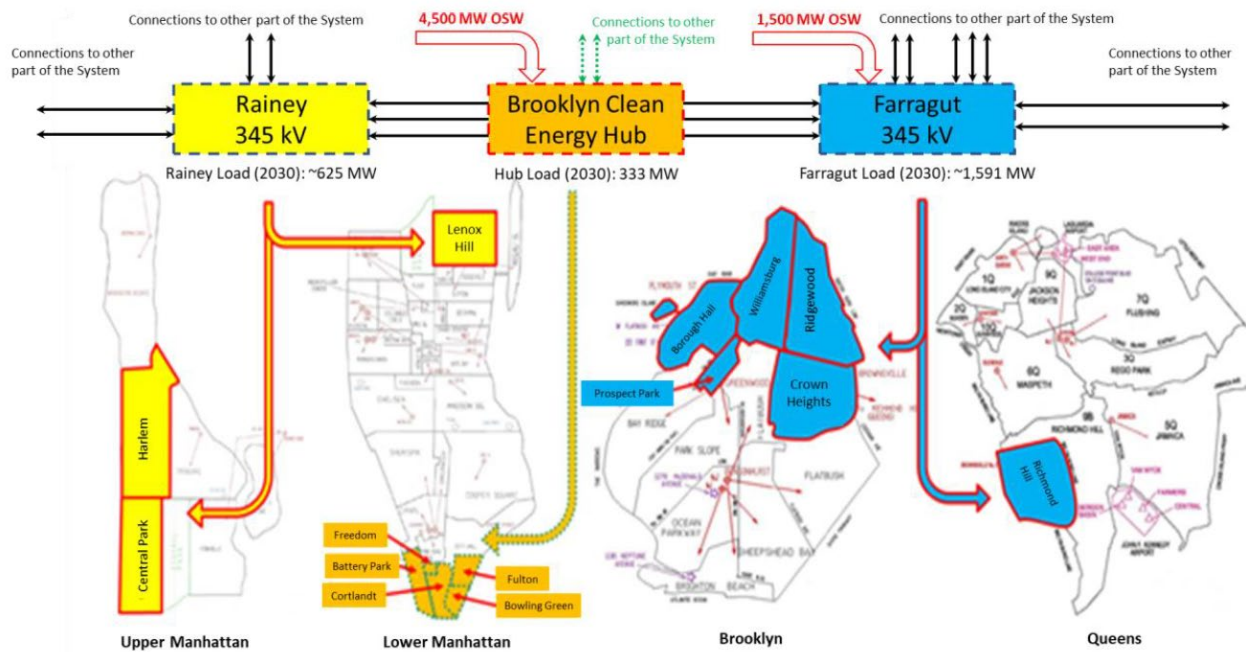
⁷ Id., p. 24.

⁸ Id., pp. 22-25.

⁹ Petition, p. 10.

and how the Hub would intercept the three high capacity 345 kV transmission feeders, currently with significant spare capacity, between the Rainey and Farragut substations in northwest Brooklyn. Figure 1 below illustrates the areas that would be served by 6,000 MW of offshore wind energy should such energy be interconnected into the Hub.

Figure 1: Inclusion of Hub within Con Edison's 345-kV System



1. Hub Description as Contemplated in the Petition

As explained in the Petition, the Hub would constitute a 345 kV transmission substation located adjacent to Con Edison's Farragut substation on Con Edison-owned property in Brooklyn, New York. The Project would require re-purposing real property currently occupied by an office building and Con Edison's Hudson Avenue Gas Turbine Nos. 3, 4, and 5 (Hudson Ave GTs), which the Company retired on November 1, 2022. The Hub would include five 345/138 kV transformer banks that would provide supply to Con Edison's existing World Trade Center and South Street Seaport substations (Nos. 1 and 2) in Lower

Manhattan (see Figure 1) and would also supply future area substations (creating approximately 1,600 MW of headroom).¹⁰

As originally contemplated, Con Edison would undertake the Project in two stages. The first stage of construction would include the design and construction of a double ring bus substation with twenty 345 kV circuit breakers, six POIs and four 345/138 kV transformer banks. Three existing 345 kV feeders (61, 62, and 63) between Con Edison's Farragut and Rainey 345 kV substations would be intercepted and diverted to the Hub so that the Hub would provide another source of power to the Farragut and Rainey 345 kV substations. The Petition asserts that, at the conclusion of this stage of construction, the Hub would be in service and ready to accept about 4,500 MW of offshore wind generation.¹¹

The second stage of construction would include creating two more POIs at Farragut Substation by re-routing to the Hub existing feeders B47 and 48, adding a fifth 345/138 kV transformer while also re-routing to the Hub existing Seaport and Trade Center supply feeders 38M11-38M15. The 345 kV transmission feeders B47 and 48 are currently connected to Farragut Substation (from East 13th Street substation) and this stage of construction would move their connection over to the Hub. The vacated positions from feeders B47 and 48 at Farragut would create two additional POIs for an additional 1,500 MW of offshore wind generation. The Petition notes that shifting the supply of Seaport/Trade Center loads from the Farragut Substation to the Hub would improve resiliency and reduce load loss during an extreme contingency event. The Petition states that, to serve load growth and enhance resilience, the Hub would

¹⁰ Id., p. 16.

¹¹ Id., p. 17.

be capable of supplying as many as five-transformer bank load-serving substations that might be constructed in the future.¹²

2. Phase 2 Justification

The Petition asserts that the Hub would create POIs electrically suitable to inject up to 6,000 MW of offshore wind generation.¹³ Specifically, the Petition states that energy from large-scale offshore wind "injection at the Hub will not only supply load directly by displacing fossil generation, but also through eight free flowing 345 kV transmission feeders to the densely populated Rainey and Farragut load centers of Central Park and Harlem (in Manhattan), Borough Hall, Prospect Park, Williamsburg, Ridgewood, and Crown Heights (in Brooklyn), and Richmond Hill (in Queens), and, on low-load days, potentially further to other upstate and downstate New York customers."¹⁴

In response to an Information Request from staff of the Department of Public Service (DPS Staff), Con Edison pointed to the New York Independent System Operator (NYISO) interconnection process as the mechanism by which the feasibility of interconnecting offshore wind energy to the Hub would be addressed. Con Edison otherwise noted that, "[u]pon the completion of the construction of the Hub, feeder access would be immediately available through 375' of waterfront access from the East River and/or ~800' of terrestrial access (via local streets)" and, "following the demolition of the existing Hudson Avenue generating station, an additional 422' of waterfront (also from the East River) and 400' of terrestrial access [would] become available for the Developer's

¹² Petition, p. 17.

¹³ Id., p. 18.

¹⁴ Id., pp. 15-16.

consideration.”¹⁵ Con Edison elaborated that it assumed that approximately four converter stations would be required to achieve the targeted 6,000 MW of offshore wind generation, a total of eight high voltage alternating current (HVAC) circuits from the converter stations (at approximately 750 MW per circuit) would interconnect into the Hub, and each HVAC circuit would be associated with three conductors, meaning twenty-four conductors would be required to accommodate the full 6,000 MW.¹⁶

3. Other Co-Benefits Associated with the Hub

The Petition asserts that the Hub would have the capacity to supply future load-serving substations in New York City, including in areas most densely populated and with the highest electricity demand. As an example, the Petition notes that the Hub would be the supply source for the new 27 kV Gateway Park Area Substation (Gateway), to be located in Brownsville, Brooklyn, which would serve the reliability needs of the Company’s stressed Brooklyn and Queens load centers and can supply other stations in the future as electricity demand grows due to electrification and other factors.¹⁷ The Petition also asserts that the Hub would provide co-benefits related to resiliency; namely, that the Hub would “enhance[] system diversity by allowing the reconfiguration of feeder connections (i.e., between the Hub and Farragut to area stations) to permit large load areas to be served by multiple sources and substations, providing additional assurance that the loss of even key substations in the case of an extreme contingency will no longer result in the loss of the system.”¹⁸

¹⁵ Response to DPS Interrogatories - Set DPS-3, Question No. 5 (filed August 19, 2022).

¹⁶ Ibid.

¹⁷ Petition, pp. 25-26.

¹⁸ Id., p. 26.

4. Estimated Schedule and Capital Cost of Project

The Petition estimates that the capital costs of the Project would be \$1 billion. The capital cost estimate provided in the Petition includes a cost breakdown per year, including estimated costs for materials and supplies, labor, and contract services. Additionally, the Petition provides an estimated construction schedule for the Hub that would have Phase 1 of the Hub in service by the end of 2027, and Phase 2 of the Hub in service by the middle of 2032.¹⁹

Technical Conference Held on August 17, 2022

DPS Staff and staff of the New York State Energy Research and Development Authority (NYSERDA) held a technical conference on August 17, 2022, to provide a forum for interested stakeholders to ask questions associated with the Hub. At the conference, personnel from Con Edison first provided a presentation summarizing the Petition. One point stressed by Con Edison at the conference is that the Hub would be a “make ready” facility, which the Company explained would eliminate the need for additional system upgrades such as station expansions for additional bus positions or breakers.²⁰ Con Edison asserted that there are several potential marine and on-land pathways for which HVAC feeder lines from offshore wind projects could be interconnected to the Hub.²¹

On September 8, 2022, Con Edison formally filed written responses to questions either pre-filed or posed during the technical conference. For example, in response to questions related to the feasibility of interconnecting HVAC transmission cables from the East River to the Hub, Con Edison stated that

¹⁹ Id., pp. A-5 to A-6.

²⁰ See Slides (filed August 31, 2022), p. 11.

²¹ Petition, p. 25.

"conceptual plans for the Hub provide space for developer's Horizontal Directional Drill (HDD) receiving pits along the shore to accept HVAC cables connecting to the Hub," and "[t]he final routing will be determined by the Developers following project specific engineering and design."²² In response to a similar question, Con Edison stated that "sea approaches to the Hub are possible."²³ In response to a question related to potential impacts to the East River seabed resulting from the use of HDD, Con Edison stated that it "has not surveyed the seabed conditions" and "Developers should address this as part of their engineering effort."²⁴

With respect to questions regarding the accuracy of Con Edison's cost estimate for the Hub, the Company stated that its "petition for cost recovery of the Hub presents a detailed cost estimate for the project of the same class and quality as any other capital spend requested in its rate cases."²⁵ With respect to a question related to the expected timeline for rate recovery, Con Edison stated that "[t]he assets comprising the Hub will have varying depreciation schedules with the major components having a book life between 50 and 75 years and would be recovered from customers over that timeframe."²⁶

Several stakeholders submitted comments in response to the information provided by Con Edison during and after the technical conference. For example, the New York Offshore Wind Alliance (NYOWA) noted that "the ability to run multiple submarine cables in the East River is a potential Achilles heel

²² Additional Pre-Submitted and Live Webex [Q]uestions and Con Edison's Answers (filed September 8, 2022), p. 8.

²³ Id., p. 10.

²⁴ Id., p. 9.

²⁵ Id., pp. 12-13.

²⁶ Id., p. 21.

with the [Hub],” and suggested that issues regarding the feasibility of routing transmission cables through New York Harbor should be “more fully diligenced [sic] and weighed against the merits of alternative solutions in the project review that normally accompanies New York’s Public Policy Transmission Needs” process.”²⁷ Atlantic Shores Offshore Wind, LLC (Atlantic Shores), which represented that it is one of the largest offshore wind leaseholders on the Eastern seaboard, requested that the Commission issue an Order with respect to the Petition prior to the submission date for responses to NYSERDA’s most recent offshore wind solicitation so that potential bidders could prepare fully-informed responses to the solicitation.²⁸ For its part, Multiple Intervenors (MI) noted that it “does not question here the need to increase points of interconnection in the southeast region of the State to facilitate offshore wind development”; however, it raised a concern that consideration of the Hub “is not the product of any type of competitive solicitation process” like the NYISO’s Public Policy Transmission Planning Process, and thus may not result in the lowest price and certainty around the cost estimate that would more likely result through that process.²⁹

Rise Light & Power, LLC (Rise) asserted that Con Edison failed to perform “any feasibility analyses for cable routing into the Hub, and is instead leaving developers to fend for themselves,” or justify “how it arrived at the \$1 billion cost estimate.”³⁰ Eversource Investment Serv. Co. LLC (Eversource) asserted that Con Edison’s submissions “demonstrate

²⁷ NYOWA’s letter, dated September 21, 2022, p. 3.

²⁸ Atlantic Shore’s letter, dated September 21, 2022, pp. 9-13.

²⁹ MI’s letter, dated September 21, 2022, pp. 1-3.

³⁰ Rise’s Comments, dated September 21, 2022, p. 5.

that it has not sufficiently addressed the constructability for offshore wind projects to interconnect to the Con Edison Hub, instead providing admittedly 'conceptual plans.'"³¹ LS Power Grid New York Corp. (LS Power) raised concerns with respect to the feasibility of interconnecting offshore wind transmission into the Hub from the East River, and urged the Commission to utilize the NYISO's Public Policy Transmission Planning Process to solicit offshore wind transmission solutions as an alternative to the Hub.³²

Con Edison's Supplement to the Petition

On December 13, 2022, Con Edison filed a Supplement to the Petition raising the additional ground that the Project is needed to meet specific reliability needs beginning in the summer of 2028. Con Edison explains that, "[b]ased on the Company's most recent forecasts, electric customer demand in the areas currently served by Con Edison's [two] distribution area substations in Brownsville, Brooklyn ... is now expected to increase significantly over the next several years due to factors such as increased electrification from electric vehicles [and that] by summer 2028, the Brownsville substations will no longer be able to reliably serve customer demand."³³ Con Edison states that, despite ongoing demand response measures, "starting in summer 2028 the Brownsville substations will be at their capacity limit of 771 MW."³⁴ To address this reliability need, the Company reiterates that it must complete construction of the new Gateway substation by the summer of 2028 and that,

³¹ Eversource's letter, dated September 21, 2022, p. 2.

³² LS Power's Letter, dated September 21, 2022, pp. 2-3.

³³ Consolidated Edison Company Of New York, Inc. Petition Supplement to Propose an Alternative Brooklyn Clean Energy Hub (filed December 13, 2022) (Supplement), pp. 1, 3.

³⁴ Id., pp. 4-5.

"[b]ecause there is no existing facility available on the Con Edison transmission system to supply the [] Gateway facility, the Brooklyn Clean Energy Hub is needed to supply that ... substation by its need date."³⁵

In response to an Information Request from DPS Staff, Con Edison provided an updated 2022 peak demand forecast for the Brownsville substations shown in Figure 2 below. Referencing

Figure 2: Brownsville 1 & 2 Ten-Year Outlook

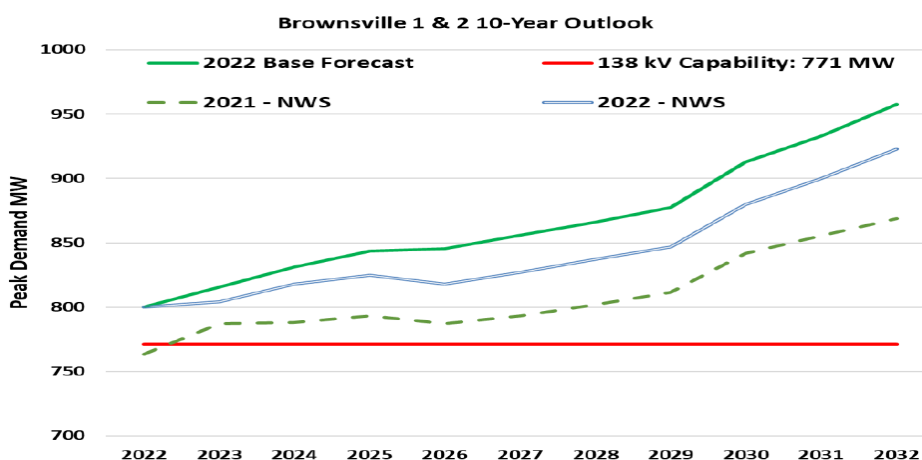


Figure 2, Con Edison states that, "even after Non-Wire Solutions, the 2022 peak demand forecast for this load pocket already exceeds the 771 MW capability at 138 kV."³⁶ Con Edison noted several recent developments resulting in it increasing the demand forecast, including higher than expected recovery following the COVID-19 pandemic, accelerated growth of electric vehicle (EV) use and electrification of non-heating appliances, and the expansion of John F. Kennedy Airport.

Con Edison states that the Hub is the only resource that could be available by the summer of 2028 to provide energy to the new Gateway substation. In response to a DPS Staff

³⁵ Id., pp. 3-4.

³⁶ Response to DPS Interrogatories Set 2-13-23, Question No. DPS-8. (emphasis in original).

Information Request, the Company elaborated that the Gowanus substation in southwest Brooklyn is the only substation that is currently capable of providing energy to Brownsville Substations 1 and 2 but expanding Gowanus would require "substantial reconfiguration of existing feeders and associated equipment," which "cannot be achieved in time to meet the summer 2028 service date required to supply the Gateway substation."³⁷

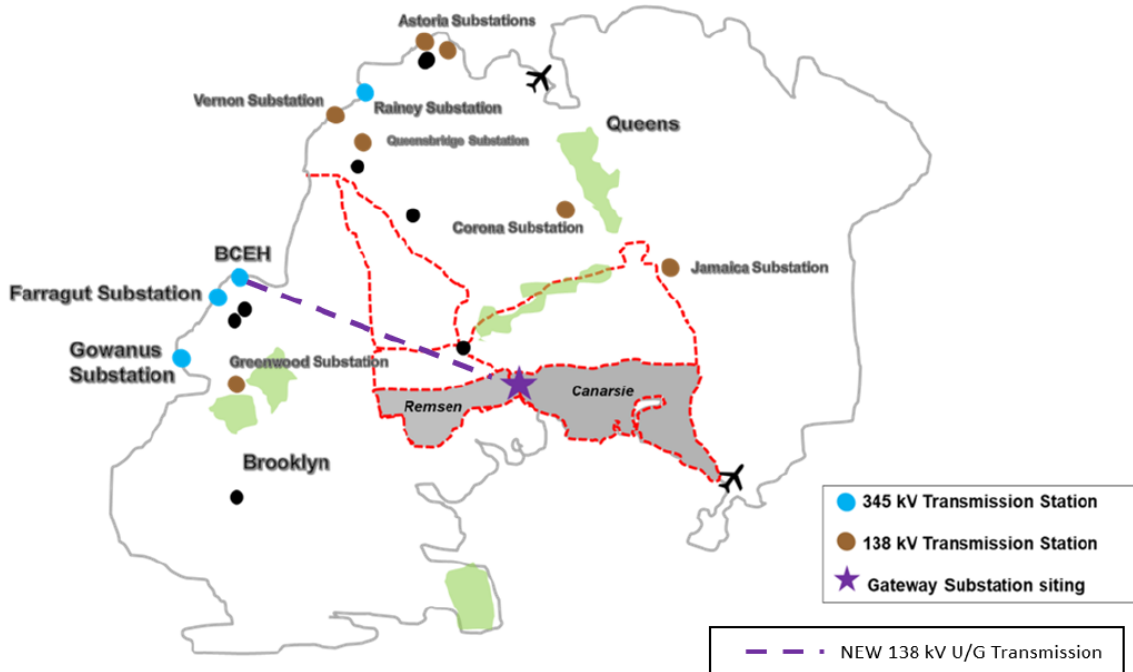
Con Edison states that Brownsville Substations 1 and 2 are each currently supplied from the Farragut Substation "through five common 138 kV underground transmission lines" that are provided with energy from five feeders from the Farragut substation, which are also "operating at full capacity."³⁸ The Company concludes that, because "no space is available at Farragut to add additional feeders there, the Brooklyn Clean Energy Hub is needed to supply the new Gateway facility."³⁹ Figure 3 below shows the proposed location of the Hub, its proximity to the proposed Gateway Substation, and a new 138 kV transmission line that would run between the two.

³⁷ Response to DPS Interrogatories Set 2-13-23, Question No. DPS-9.

³⁸ Supplement, p. 5.

³⁹ Id.

Figure 3: Topographical View of Connection Between Hub and Gateway



Con Edison also notes that, “due to local load growth and electrification, the Company projects that the [the Hub] would also additionally supply two new distribution area substations - Gateway Park No. 2 and Nevins Street - with approximately 1,066 MW of load by year 2042. The total load serving capability of the [the Hub], through five 345/138 kV transformers, is 1,919 MW.”⁴⁰ Per the Company’s latest 20-year forecast projections (2023-2042), existing Water Street, Plymouth Street, Greenwood, and Bensonhurst No. 2 distribution area substations are projected to no longer be able to reliably serve customer demand in parts of Brooklyn; hence the need for additional distribution substation in those areas.⁴¹ The Company also asserts that “[l]arge base load fossil fuel-fired

⁴⁰ Response to DPS Interrogatories Set 2-13-23, Question No. DPS-10 (Response to DPS-10).

⁴¹ Response to DPS Interrogatories Set 2-16-23, Question No. DPS-12.

generation cannot disconnect from the grid until replacement renewable resources that provide the equivalent reliability contribution are connected and placed into service in New York City (NYISO Zone J), and the Hub creates POIs for such replacement resources.”⁴²

To address the identified reliability need, the Supplement proposes a Scalable Reliability version of the Hub that would constitute “a double-ring bus substation with fourteen 345 kV circuit breakers and six transmission connections to the existing system”; however, “unlike the original Hub, this alternative does not include the re-routing of existing 345 kV feeders B47 and 48 or the additional 345 kV circuit breakers necessary for the ‘make ready’ interconnections of new supplies, including offshore wind.”⁴³ Con Edison notes that it rejected a reliability only version of the Hub that would have included a single ring bus substation with twelve 345 kV circuit breakers because “expanding it to a double ring bus that would create the same interconnection points as the recommended [Scalable Reliability] alternative would not be feasible prior to Gateway’s energization.”⁴⁴

Con Edison states that the Scalable Reliability version of the Hub would “result[] in a lower initial cost while still providing a reliable transmission source for Gateway.”⁴⁵ The costs associated with the three versions of the Hub identified in the Petition and Supplement are summarized in Table 1 below. The Supplement notes that that funding associated with each version of the Hub is “on an order of

⁴² Response to DPS-10.

⁴³ Supplement, p. 8.

⁴⁴ Id., p. 9.

⁴⁵ Id., p. 7.

magnitude estimate that includes overheads, escalation and the standard 30% contingency."⁴⁶ As in the Petition, the Supplement also provides a cost breakdown associated with the Scalable Reliability version of the Hub for the period 2023-28.⁴⁷

Table 1: Comparison of Versions of Hub

Project	Initial Topology	Expandable	345 kV Breakers	Resiliency Benefits	Interconnection Points	Estimated Cost
Original	Double Ring Bus	Not necessary	20	Yes, solves extreme contingency case	8 total, 6 at Hub and 2 at Farragut	\$998M
Scalable Reliability Proposal	Double Ring Bus	Both during and after construction	14	No	Expandable to 8 (original Hub design) but only after construction	\$810M
Reliability-Only Alternative	Single Ring Bus	After construction only	12	No	Expandable to 8 (original Hub design) but only after construction	\$773M

On the issue of cost recovery and allocation, Con Edison requests that the Scalable Reliability version of the Hub proposed in the Supplement be approved for funding as a Phase 2 project under the utilities' Cost Sharing and Recovery Agreement (CSRA) on the grounds that, in addition to addressing reliability needs, it also provides CLCPA benefits. Con Edison asserts that, to "encourage [] multi-benefit projects wherever possible," the Commission should "approve them as eligible for statewide cost allocation - as a contrary result would undermine the equity that the cost sharing agreement sought to achieve."⁴⁸ Nevertheless, Con Edison notes its understanding "that because the project's only certain use at this juncture is to meet local

⁴⁶ Id., p. 18.

⁴⁷ Id.

⁴⁸ Id., p. 12.

reliability needs, the Commission may determine that its costs should initially be paid by Con Edison customers only.”⁴⁹

Finally, the Supplement specifies that Con Edison plans to make a filing no later than one year prior to the in-service date of the Scalable Reliability version of the Project to inform the Commission on whether any offshore wind project developers (or potentially other projects that would help the State achieve its CLCPA goals) have expressed interest in using the Hub as a POI. The future filing would request statewide load-ratio-share cost recovery in accordance with these interconnection requests, including (but not limited to) the costs of any additional work that Con Edison would need to complete due to such developer interconnections.⁵⁰

NOTICE OF PROPOSED RULE MAKING

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), a Notice of Proposed Rulemaking with respect to the Petition was published in the State Register on May 11, 2022 [SAPA No. 20-E-0197SP12]. In addition, on May 13, 2022, the Secretary to the Commission issued a Notice Soliciting Comments on the Petition. The time for submission of comments pursuant to these notices expired on July 11, 2022. Pursuant to SAPA §202(1), a Notice of Proposed Rulemaking with respect to the Supplement was published in the State Register on January 4, 2023 [SAPA No. 20-E-0197SP13]. The time for submission of comments pursuant to this notice expired on March 6, 2023. The comments in response to the Petition and Supplement are summarized in Appendices A and B to this Order.

⁴⁹ Id., pp. 11-12.

⁵⁰ Id., p. 11.

LEGAL AUTHORITY

The Public Service Law (PSL) provides the Commission with broad authority to undertake the actions at issue here; namely, directing action to ensure that energy supplies and transmission resources are adequate to meet demand in a manner that is protective of the environment. PSL §4(1) expressly imbues the Commission with "all powers necessary or proper to enable [the Commission] to carry out the purposes of [the PSL]" which include, without limitation, the provision of safe and adequate service at just and reasonable rates,⁵¹ environmental stewardship, and the conservation of resources.⁵² PSL §5(1) provides that the "jurisdiction, supervision, powers and duties" of the Commission extend to the "manufacture, conveying, transportation, sale or distribution of ... electricity." Under PSL §5(2), the Commission is required to "encourage all persons and corporations subject to its jurisdiction to formulate and carry out long-range programs, individually or cooperatively, for the performance of their public service responsibilities with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources."

PSL §65(1) grants the Commission authority to ensure that "every electric corporation and every municipality shall furnish and provide such service, instrumentalities and facilities as shall be safe and adequate and, in all respects,

⁵¹ See Int'l Ry. Co. v. Pub. Serv. Comm'n, 264 A.D. 506, 510 (3d Dep't 1942).

⁵² PSL §5(2); see also Consolidated Edison Co. of N.Y., Inc. v. Pub. Serv. Comm'n, 47 N.Y.2d 94 (1979) (overturned on other grounds) (describing the broad delegation of authority to the Commission and the Legislature's unqualified recognition of the importance of environmental stewardship and resource conservation in amending the PSL to include §5).

just and reasonable.” The Commission has further authority under PSL §66(5) to prescribe the “safe, efficient and adequate property, equipment and appliances thereafter to be used, maintained and operated for the security and accommodation of the public” whenever the Commission determines that the utility's existing equipment is “unsafe, inefficient or inadequate.” Similarly, PSL §66(2) provides that the Commission shall “examine or investigate the methods employed by ... persons, corporations and municipalities in manufacturing, distributing and supplying ... electricity ... and have power to order such reasonable improvements as will best promote the public interest, preserve the public health and protect those using such ... electricity.”

The Accelerated Renewable Energy Growth and Community Benefit Act (Act), also applicable here, provides the Commission with broad authority to take action to ensure that renewable energy can be efficiently and cost-effectively injected into the State's transmission and distribution system for delivery to regions of the State where it is needed.⁵³ The Act requires the Commission to develop plans that “provide for the timely development of local transmission and distribution upgrades by the State's regulated utilities” and LIPA.⁵⁴

DISCUSSION

Hub Proposed in Petition

The record of this case is not definitive enough to support Con Edison's request for approval of the Hub as originally proposed in the Petition. Although Con Edison states that the Hub will enable the interconnection of 6,000 MW of

⁵³ L. 2020, ch. 58, part JJJ, §7(2).

⁵⁴ Act §7(3).

offshore wind, the Petition fails to make an adequate showing regarding how the Project can realistically accomplish this purpose.

As noted above, the Commission's January 2022 Order required Con Edison to address the feasibility of its proposal for two primary reasons. First, the Commission understood that "interconnecting between 5,000 MW and 6,000 MW of offshore wind into Zone J ... may be difficult due to the scarce cable routing corridors."⁵⁵ The Order recognized the highly constrained nature of the corridor into New York Harbor from the Narrows - the body of water that separates Brooklyn from Staten Island. In addition, to "preserve maximum efficient use of" those limited corridors, the Commission directed NYSERDA to condition future offshore wind solicitations on the use of high voltage direct current (HVDC) transmission cables, which have approximately three times the capability of HVAC transmission cables.⁵⁶ The HVDC transmission cable requirement created a need for onshore converter stations to transform the HVDC electricity into HVAC electricity for delivery to Con Edison's customers. The same requirement also means that between 15-18 HVAC transmission lines would be needed to complete the interconnection of 6,000 MW of offshore wind energy at the Hub, taking account of the 3:1 ratio between HVDC and HVAC transmission capability and the general capacity limitations associated with AC transmission.

Although there is significant generator interest in using a location near the Hub as a POI, the Petition and supporting information lack sufficient detail regarding the feasibility of using the Hub as the POI for up to 6,000 MW of offshore wind. Specifically, six offshore wind projects with a

⁵⁵ January 2022 Order, p. 16.

⁵⁶ Id.

total capacity of 7,670 MW have identified the Farragut substation - located adjacent to where the Hub would be sited - as a potential POI in the NYISO interconnection queue.⁵⁷ It is doubtful that Farragut could be used for this purpose, however, because it is already at capacity, with no available land for expansion. Although the Hub would be electrically connected to the Farragut substation and thus an obvious alternative for use as a POI, the information cited by Con Edison from the NYISO queue shows only that there is strong interest in using Farragut as a POI - not that HVAC cables carrying 6,000 MW of energy can feasibly be connected to the Hub.

Given the limited capability to route transmission cables through the Narrows and East River, as already noted, it was incumbent on Con Edison to explain with sufficient specificity how these limited State-owned resources would be utilized for this purpose. Con Edison, however, fell short in this regard. For example, the Company acknowledged in response to a DPS Staff Information Request that "studies beyond the standards used in the NYISO interconnection process for physical feasibility were not performed."⁵⁸ Additionally, Con Edison provided little details at the technical conference regarding the feasibility of interconnecting HVAC transmission lines into the Hub from the East River, despite many of the participants in the conference raising this issue in questions.

Several commenters raised concerns with respect to the feasibility of utilizing the Hub as a POI for 6,000 MW of offshore wind. The Commission finds relevant a schematic provided by NextEra Energy Transmission New York, Inc. (NEETNY)

⁵⁷ NYISO Interconnection Queue (1/31/23), <https://www.nyiso.com/interconnections>.

⁵⁸ Con Edison's Response to DPS Interrogatories - Set DPS-3 (filed August 19, 2022).

in its comments (reproduced below as Figure 4). This schematic illustrates the complexity of interconnecting HVDC and HVAC cables to the Hub. As shown in Figure 4 below, routing HVAC transmission cables associated with 6,000 MW of offshore wind to the Hub would likely result in HVDC cables associated with offshore wind projects intersecting with HVAC cables emanating from converter stations. As noted in a recent study released by NYSERDA, "HVAC and HVDC cables can induce currents in adjacent cables and other metallic infrastructure."⁵⁹ In short, there are significant safety risks associated with intersecting HVAC and HVDC cables. This risk can be somewhat mitigated by separating the HVAC and HVDC cables at varying burial depths but such a practice is complex and costly. Thus, the intersection of HVAC and HVDC cables is to be avoided, if possible, and the Company does not explain how such risk would be managed.

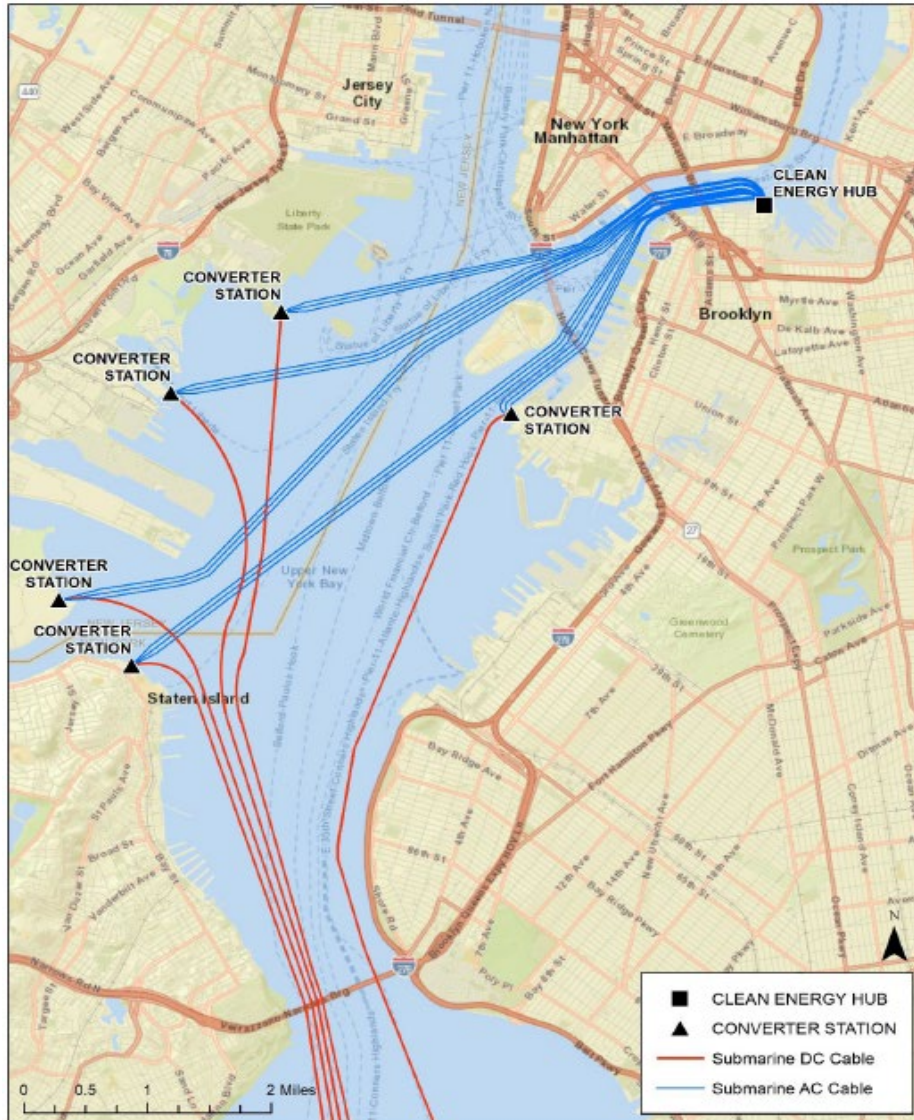
NEETNY states that it prepared a constructability analysis showing that it is not possible to use the Hub as a POI for 6,000 MW of offshore wind. In addition to the risks associated with intersecting HVAC and HVDC cables noted above, NEETNY asserts that the narrow portion of the East River adjacent to where the Hub would be sited presents an additional physical constraint for all cables entering the East River from the south. NEETNY also asserts that the existing shoreline structures, including piers and bulkheads, extend nearly to the federal channel boundary, thus requiring HVAC cables to be installed entirely within the federal channel in this area prior to interconnecting into the Hub.⁶⁰ Several other commenters,

⁵⁹ Offshore Wind Cable Corridor Constraints Assessment, dated January 2023, p. 26. <https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Offshore-Wind/2306-Offshore-Wind-Cable-Corridor-Constraints-Assessment--completeacc.pdf>

⁶⁰ NEETNY's Comments, p. 4.

including Rise, Anbaric, LS Power, Eversource, and Attentive Energy, similarly assert that the Hub as proposed in the Petition is infeasible.

Figure 4: NEETNY's Schematic Illustration



In sum, the Commission presumes that the strong interest of offshore wind generators in using Farragut as POIs for 7,670 MW of offshore wind energy shows that developers have undertaken some due diligence regarding the feasibility of routing transmission cables through the Narrows and East River. However, based on the lack of specificity in the Petition and supporting documents regarding the feasibility of

interconnecting a full 6,000 MW of offshore wind energy into the Hub, the Commission denies the request for Phase 2 cost recovery related to the version of the Hub proposed in the Petition. To be clear, while at some point the feasibility of routing sufficient cables to connect 6,000 MW of wind energy to New York City POIs may be demonstrated, Con Edison has failed to make that showing here.

Scalable Reliability Hub Proposed in Supplement

The Commission next examines the Supplement to the Petition, in which Con Edison proposes a Scalable Reliability version of the Hub focused primarily on addressing what it asserts as a reliability need in the Brownsville area of Brooklyn. Con Edison states that, based on the current electric forecast, the 138 kV supply feeders for Brownsville Substation Nos. 1 and 2 are overloaded.⁶¹ Con Edison states that, although it will implement various measures to alleviate the overloads, including customer electric demand transfers (a total of 6 MW from Brownsville to the Flatbush and Maspeth Networks in 2023 and 60 MW to the Glendale Network in 2026) and using higher operational voltages and power factors, the Brownsville supply feeders would again exceed their rated capacity by the summer of 2028, at which point the only remaining load relief measure would be to perform additional network transfers to the Gateway substation the Company plans to build in Brownsville.

Con Edison asserts that the Scalable Reliability version of the Hub, which it estimates would cost \$810 million, would be needed as a supply source to Gateway:

"Gateway is needed to maintain reliability to customers in southeast Brooklyn and southwest Queens. Gateway cannot be placed into service without a transmission substation supply. The [Hub] will

⁶¹ Supplement, p. 16.

establish a transmission supply to Gateway and can be completed by summer 2028.”⁶²

Con Edison asserts that, if the Scalable Reliability version of the Hub is not completed by the summer of 2028, Gateway would not have a transmission supply, which in turn would result in a lack of “adequate capacity to supply the networks of southeast Brooklyn or southwest Queens during peak conditions and this could lead to widespread customer outages.”⁶³

Con Edison also provided evidence supporting its assertion that the Hub is the only potential source of energy to the new Gateway substation. As noted above, Con Edison established that its existing substation at Gowanus could be expanded to supply energy to Gateway; however, the Company showed that the expansion of Gowanus could not be completed until well after the summer of 2028 when Gateway must be energized to meet the forecasted reliability need.⁶⁴ The Company also showed that it explored several non-wires alternatives but none would suffice to reduce load to the extent of addressing or even delaying the reliability need.

In approving a recent petition filed by Con Edison requesting cost recovery regarding the Transmission Reliability and Clean Energy (TRACE) projects, the Commission explained the significant challenges confronting the State related to maintaining reliability during the transition to a clean energy economy:

“[I]t is clear that New York State is in the middle of a fundamental change in the generation and delivery of electricity. Priority has shifted to ensuring renewable, clean sources are integrated into the grid while polluting sources are being phased out. With such changes, it is expected that additions and

⁶² Id.

⁶³ Id., p. 17.

⁶⁴ Id.

modifications to the utilities' transmission infrastructure will be needed to accommodate the shifting sources of electricity, and flexible methods for recovering the costs of such additions will need to be relied upon."⁶⁵

The key point is that, in this period of transformation, the Commission must respond flexibly and promptly to changes associated with the State's transmission system. The TRACE projects were needed to address the retirement of gas turbine peaker plants in New York City. Here, the primary purpose of the Scalable Reliability version of the Hub is to address the increased demand associated with the electrification of vehicles and buildings in New York City.

Based on the record of this case and the projections established by Con Edison, which we find to be reasonable, the Commission agrees that the Hub is the only potential substation that can provide new supply to energize Gateway in time to meet the local reliability need. The Commission also finds sufficient the Company's showing that, due to expected load growth attributable to the accelerated growth of EV charging stations and building electrification, two distribution area substations (in addition to Gateway) that could be served by the Hub would be needed within its service area by 2042. Indeed, to meet the target under the CLCPA to achieve a zero-emission grid by 2040, the Initial Report on the New York Power Grid Study, issued earlier in this proceeding, projected a growth in statewide installed generation capacity from about 43 gigawatts (GW) in 2019 to 90 GW of in 2040.⁶⁶ Much of the associated load

⁶⁵ Case 19-E-0065, Con Edison - Electric Rates, Order Regarding Transmission Investment Petition (issued April 15, 2021), p. 12.

⁶⁶ See Initial Report on the New York Power Grid Study (Issued January 19, 2021), p. 80, Figure 17 (referencing requirement under PSL §66-p(2)(b)).

growth would occur in New York City. Thus, we can expect a need for additional 345 kV substations in New York City - where available real estate is at a premium - to accommodate the projected increase in load.

As noted above, the Supplement discusses two versions of the Hub to solve the projected 2028 local reliability need: (1) the Scalable Reliability version; and (2) a reliability-only version of the Hub - estimated to cost \$773 million. However, Con Edison does not propose the reliability-only version of the Hub because the Company anticipates that POIs for offshore wind or other resource interconnections in New York City will be needed. This expectation leads Con Edison to point out that the upgrades that would be needed in the future to use the Hub as a POI would have to be undertaken as a retrofit to the reliability version, at significant incremental cost. In other words, Con Edison rejected the reliability-only version of the Hub because, in its view, ratepayers would overall be better served with the Scalable Reliability project. The Commission concurs with this assessment.

The Commission notes that the Scalable Reliability version of the Hub is estimated to cost \$37 million more than the reliability-only version. With the \$37 million (i.e., 4.6 percent) in additional costs, the Scalable Reliability version would include relevant 345 kV circuit breakers and associated system protection devices and equipment to allow the Hub to act as a make-ready POI for 1,500 MW of energy from any energy resource.⁶⁷ By contrast, the reliability-only version of the Hub would not provide any POIs. The \$37 million in additional costs thus would provide a significant benefit in terms of potential POIs at a relatively small incremental cost.

⁶⁷ Con Edison's Response to DPS Interrogatories - Set DPS-14 (filed March 6, 2023).

Additionally, as already noted, based on projects in the NYISO interconnection queue, there is significant interest in using the Farragut as a POI for 7,670 MW of offshore wind, despite that substation being at its capacity limitation. The Hub would be an obvious alternative to Farragut for use as a POI. The high level of developer interest suggests that the Commission may reasonably assume that at least 1,500 MW of energy - no matter the source - would seek to interconnect at the Hub and absorb at least some of the ratepayer investment.

Regarding this issue, Natural Resources Defense Council, the New York League of Conservation Voters, and Environmental Advocates of New York (collectively, Clean Energy Parties) filed a joint comment letter basing their support for the Hub, in part, on "expressions of interest from offshore wind energy developers looking to connect to the Hub so that there is a more accurate measure of demand for the [P]roject."⁶⁸ The Commission agrees and reiterates that the 7,670 MW of offshore wind capacity that have identified Farragut as a POI in the NYISO interconnection queue represents significant interest in using the Hub - which would be electrically connected to Farragut - as a POI for 1,500 MW of offshore wind energy.

For these reasons, the Commission finds that Con Edison has met its burden of showing that that the Scalable Reliability version of the Hub is necessary and appropriate to meet an immediate local reliability need in Brownsville and future needs related to projected increases in local load. We also find that the location would provide interconnection points for 1,500 MW of energy. Relatedly, we disagree with New York City's comments to the extent of requesting that the Commission refrain from approving the Company's proposal until additional

⁶⁸ Comments, filed on July 11, 2022, p. 1.

analysis is undertaken. Con Edison's projection of an increase in electric demand requires the Commission to act flexibly and quickly, which we are doing through issuance of this Order.

The Commission also disagrees with New York City's argument that the Hub is not cost-effective and does not promote resiliency. As noted, there is an impending need for multiple 345 kV substations in New York City to address the projected increase in demand resulting from the CLCPA mandate to move toward electrification. The Hub is the first of several 345 kV substations that will need to be built in the next 15 to 20 years in New York City to address the projected increase in demand. The Hub would be built on Con Edison-owned real estate, meaning that it would not result in any real estate acquisition costs. The Hub would be electrically connected to Farragut and located between Farragut and Rainey, meaning that it would be connecting to two electrically "strong" transmission stations, creating increased flexibility of energy transfers around Con Edison's NYC 345 kV load serving transmission system.

Additionally, the Supplement states that the "funding request is on an order of magnitude estimate that includes overheads, escalation and the standard 30% contingency."⁶⁹ The project scope detail and cost estimate accuracy for the proposed Hub is a "rate-case quality" submittal with a contingency of +30 percent, such that the cost estimate and schedule for the scope of work is reasonable for a capital investment that is proposed in advance of project-specific engineering. Given that the Hub has not advanced to the point of final engineering design, for the purposes of this request, we accept the Company's cost estimate as the basis for the Commission's funding decision. In the Supplement, Con Edison stated it has already incurred \$2.7

⁶⁹ Supplement, p. 18.

million of costs for the Project.⁷⁰ For transparency regarding spending and Project progress, Con Edison shall file Project status updates with its annual and quarterly capital reports required by the Commission in the Company's most recent electric rate case. At minimum, Con Edison shall provide updates regarding schedule, actual spend, forecasted spend, work scope, and work completed along with reasons for such changes.

As for resiliency, Con Edison explained in the Petition that it would weather-harden the Hub "by building it to a flood protection standard of the 2015 FEMA PFIRM 1% annual flood probability (i.e., base flood elevation, plus 3 feet of sea rise and 2 feet of freeboard (FEMA + 5)),⁷¹" and design the Hub to "include the placement of critical substation systems, such as relay panels and the control room, on the second floor of the building" and mechanical systems on the roof whenever possible.⁷¹ For these reasons, the Commission is satisfied that the Hub will be built in a manner to withstand potential storms.

The Commission also takes note of the many comments, including those from NYOWA, Orsted, New York City, NEETNY, Rise, LS Power, and Anbaric, suggesting we should utilize the NYISO's Public Policy Transmission Planning (PPTP) process to address offshore wind transmission infrastructure. The NYISO issued its most recent solicitation for Public Policy Transmission Needs on August 31, 2022, and several of the responses to the solicitation identified the requirement under PSL §66-t(5) for the Commission to create a program requiring load serving entities to procure at least 9 GW of offshore wind energy (9 GW

⁷⁰ Id.

⁷¹ Petition, p. A-2.

OSW mandate).⁷² Pursuant to the PPTP process, the Commission noticed the responses to the NYISO solicitation in the State Register, and multiple comments were filed in response to the notice prior to the closure of the public comment period. The matter is thus fully submitted for Commission consideration. We do not view the determination here as in any way precluding the Commission from taking action on the pending requests to identify a Public Policy Transmission Need related to the 9 GW OSW mandate.⁷³

Finally, the Commission addresses the open issues related to the recovery of the \$810 million in estimated costs associated with the Scalable Renewable version of the Hub. The Commission agrees with Con Edison that there is nothing at this point to show that the primary purpose of the Hub is to facilitate compliance with CLCPA targets. From what can be known now, the Hub is adequately justified by the need to address near-term and future reliability needs in Brooklyn. Again, this is not to express doubts regarding whether the Hub might also be used for purposes of interconnecting and distributing renewable energy but the specifics of those future uses are not yet known. Indeed, given the significant increase in electric load projected in New York City and the fact that current State policy requires such load to be met by zero-emission generation resources, the Commission believes that

⁷² Case 22-E-0633, In the Matter of New York Independent System Operator, Inc. Proposed Public Policy Transmission Needs for Consideration, Comments on the Need for Public Policy Transmission Need Declarations (filed October 31, 2022).

⁷³ The Commission rejects LS Power's related argument that the new radial line that would provide energy from the Hub to Gateway is a bulk transmission line subject to the authority of the Federal Energy Regulatory Commission. The Commission is applying here its broad authority to ensure that Con Edison provides safe and adequate service related to local load.

clean energy injections at the Hub will ultimately be needed. However, at this point in time, the primary justification for the Project is its role in maintaining reliability and, for this reason, the Commission finds that the costs of the Scalable Reliability version of the Hub may be recovered from Con Edison's customers.

In so finding, the Commission recognizes that Con Edison is in the midst of an ongoing rate case; however, the exigent circumstances associated with both addressing the reliability need in Brownsville and meeting CLCPA targets, and the fact that Con Edison's original Petition was filed prior to the rate case provide the necessary basis for the Commission to act now. Of note, New York City takes the position that cost recovery through the load ratio share cost recovery mechanism is not appropriate on the grounds that "the City is very concerned about the precedent that would be created if the Commission were to allow for socialized cost allocation and recovery of local reliability projects."⁷⁴ The Commission concurs. Accordingly, as requested in the Supplement, the Commission authorizes a surcharge to recover the carrying costs from Con Edison's customers after the Hub is placed into service and until such costs are reflected in base rates. The costs will be subject to DPS Staff review prior to the commencement of any cost recovery through the surcharge. The carrying costs shall consist of the return of investment and the return on investment at the Company's pre-tax rate of return approved by the Commission at the time the surcharge is to be collected from customers. Con Edison shall recover the carrying costs of the Hub from its electric customers through the Monthly Adjustment Clause included in the Company's P.S.C. No. 10 - Electricity tariff and

⁷⁴ Comments of New York City, filed on March 6, 2023, p. 8.

Power Authority of the State of New York's Statement of Other Charges and Adjustments included in the Company's P.S.C. No. 12 - Electricity tariff. Because an extensive public notice and comment process has been afforded to provide input on this tariff change, including the SAPA rulemaking process noted above, the requirements for newspaper publication under PSL §66(12)(b) and 16 NYCRR §720-8.1 will be waived. The surcharge recovery is capped at the \$810 million estimate provided by the Company in the Supplement and any excess costs prudently incurred for the Project shall be addressed in Con Edison's next rate case filed after the completion of the Project, unless the Commission decides otherwise after considering the petition Con Edison may file no later than one year prior to the in-service date of the Scalable Renewable Hub as discussed below.

The emergence of well-developed and feasible options for clean energy interconnections at the Hub could justify a change in this approach to cost recovery. The costs of a reliability project that is expanded or modified to capture CLCPA benefits from its baseline configuration may be allocable on a load ratio share basis.⁷⁵ For this reason, the Commission grants Con Edison's request to file a petition no later than one year prior to the Scalable Renewable Hub's in-service date to request an alternative cost-recovery mechanism associated with the Hub. This deadline is appropriate because it would allow Con Edison and other parties time to explore solutions for offshore wind resources seeking interconnections in New York City. If feasible options emerge, the Commission may well decide an alternative cost recovery mechanism should apply to Hub costs.

⁷⁵ Phase 2 Order, pp. 22-23 (recognizing that incremental investment to capture CLCPA benefits over a baseline project may be allocable as Phase 2 costs).

In granting this request, however, the Commission notes its skepticism regarding whether it would authorize Con Edison to seek alternative cost recovery for the aspect of the Hub that appears focused on reliability; i.e., the \$773 million associated with what Con Edison describes as the reliability only version of the Hub. The Commission also notes that the Company should explore cost recovery mechanisms other than the mechanism available under Phase 2 for any upgrades to the Hub associated with clean energy interconnections. Indeed, there is nothing preventing Con Edison from participating with other parties in responding to future offshore wind solicitations issued by NYSERDA or solicitations issued by the NYISO related to any identified public policy transmission needs associated with offshore wind transmission.

As part of our continuing effort to maintain transparency regarding the rate impacts associated with projects approved outside of the rate case cycle, the Commission provides Table 2 below to show the range of potential bill increases associated with the Scalable Renewable version of the Hub approved here. As noted, this includes the standard 30 percent contingency noted in Con Edison's filing. In addition, since the Company has filed for a rate increase that has yet to be considered by the Commission, Appendix C of this Order includes the bill impacts based on current rates in effect and the proposed Rate Year 3 rates included in the Joint Proposal filed in Case 22-E-0064.⁷⁶

⁷⁶ Rate Year 3 rates are for the 2025 calendar year. See Case 22-E-0064 and Case 22-G-0065, Con Edison - Electric and Gas Rates, Joint Proposal (filed February 16, 2023).

**Table 2: Typical Residential Customers'
Potential Monthly Bill Impacts⁷⁷**

Typical Usage	Change to Service Classification No. 1 Bills	
	\$Change	%Change
280 kWh (NYC)	\$0.91 - \$1.06	1.0% - 1.1%
425 kWh (Westchester)	\$1.39 - \$1.60	1.1% - 1.2%
600 kWh	\$1.96 - \$2.26	1.1% - 1.2%

CONCLUSION

The Commission concludes that Con Edison's current and future demand forecast and anticipated near-term reliability needs justify the relief Con Edison requests in its Supplement to the Petition. The Commission therefore approves the cost recovery of the Scalable Reliability version of the Hub proposed in the Supplement and authorizes surcharge recovery of the Project's carrying costs after the Project is placed into service and until such costs are reflected in base rates. The Commission denies the requested relief in the Petition.

The Commission orders:

1. Cost recovery of the Clean Energy Hub as described in Consolidated Edison Company of New York, Inc.'s supplement to the petition is approved, subject to the terms and conditions identified in the body of this Order.

⁷⁷ These bill impacts are solely illustrative in nature and provide a range of bill impacts if the Project is completed at a total cost of \$773 million or as high as \$998 million. In addition, this assumes the Project costs are recovered from Con Edison's electric customers only. The actual bill impacts can be determined once rates are known at the time the Project is placed in service. In addition, while the total monthly bill is different when comparing current rates to the Rate Year 3 rates, as shown in Appendix C of this Order, the change to bill (i.e., the increase by dollars and increase by percent) is the similar.

2. Consolidated Edison Company of New York, Inc.'s request to file a petition no later than one year prior to the Clean Energy Hub's in-service date to request an alternative cost-recovery mechanism is approved, subject to the terms and conditions identified in the body of this Order.

3. The petition as supplemented is otherwise denied.

4. Consolidated Edison Company of New York, Inc. is directed to file compliance tariff revisions to its P.S.C. No. 10 - Electricity and P.S.C. No. 12 - Electricity tariffs to effectuate cost recovery of the Brooklyn Clean Energy Hub within 30 days of the issuance of this Order, as discussed in the body of this Order.

5. The requirements of Public Service Law §66(12)(b) and 16 NYCRR §720-8.1, as to newspaper publication with respect to the tariff filings directed in Ordering Clause No. 4, are waived.

6. After the Brooklyn Clean Energy Hub goes into service, Consolidated Edison Company of New York, Inc. shall make a filing of the costs it proposes to recover through the Monthly Adjustment Clause and the Other Charges and Adjustments mechanisms at least 90 days prior to commencing cost recovery. The filing shall include associated workpapers detailing project costs and proof of costs incurred.

7. In the Secretary's sole discretion, the deadlines set forth in this Order may be extended. Any request for an extension must be in writing, must include a justification for the extension, and must be filed at least three days prior to the affected deadline.

8. This proceeding is continued.

By the Commission,

(SIGNED)

MICHELLE L. PHILLIPS
Secretary

APPENDIX A: SUMMARY OF COMMENTS IN RESPONSE TO PETITIONRise Light & Power (Rise) 5/17/2022 Comments

Rise asks the Commission to reject the Petition as proposed and direct the Company to resubmit a more detailed Petition. Rise states that the new Petition should be submitted after the NYSERDA Offshore Wind Renewable Energy Certificate and Request for Proposals (NYSERDA OREC RFP) is completed; after the New York Independent System Operator (NYISO) Awards from its most recent solicitation are issued; and after NYSERDA and DPS Staff file a report on potential cable routes. Rise asserts that, by submitting the Petition before these processes have been completed, Con Edison is adding uncertainty to the market.

Rise states that the Petition fails to provide the information required by the Commission in its January 2022 Order. In this respect, Rise asserts that the Petition (i) provides capital expense estimates that are a summary of calculations without providing data or an explanation to support the estimates, (ii) provides a single conclusory solution without detailed analysis of the costs or benefits of competing options, and (iii) excludes a sensitivity analysis or comparison of how the estimated \$1 billion in cost varies in different scenarios. Rise also asserts that the proposal for statewide cost allocation of the Project is premature because the Commissioner directed Con Edison to address procedural matters after the merits, costs, and actual need for the Hub is established.

Further, Rise asserts that the Petition includes material claims that are unsupported. For example, Rise takes issue with Con Edison's claim that Zone J points of interconnection (POIs) held by fossil fuel generators would not be available because such resources cannot disconnect from the

grid if there will be reliability need until replacement resources are available. Rise asserts that this claim is contrary to State policy because Governor Hochul directed DPS, the Department of Environmental Conservation, and NYSERDA to create blueprints to achieve the replacement of downstate fossil fuel units by 2030. Rise also asserts that Con Edison's concerns regarding reliability are rebuffed by numerous facilities that have retired without the system being reliability maintained. As examples, Rise points to the retirement of Indian Point and several peaker plants.

Rise 7/11/22 Comments

Rise also filed comments, dated July 11, 2022, making similar points to its prior comments. Rise added that the Petition is inconsistent with the Commission's September 9, 2021, Phase-Two Order and the State's broader coordinated transmission planning efforts. Rise also claims that Con Edison's Petition is an attempt to skirt the State's coordinated grid planning efforts.

With respect to the issue of feasibility, Rise states that the East River can only support nine alternating current (AC) cables, which could carry energy from at most 3,375 MW of offshore wind capacity - not the 6,000 MW of capacity claimed in the Petition. Rise notes that maximizing cables to the Hub would prevent the use of other potential POIs. Rise asserts that the Petition fails to appropriately address the location of necessary HVDC converter stations and lacks guidance for developers or reserve space for routing cables into the facility. Rise states that there are also no details on how the cables will land, and no information is given regarding the routing of terrestrial cables onshore.

Rise further asserts that there is no reason for the Commission to hastily approve the Hub. Specifically, Rise

states that the Commission should delay any determination on the petition under after (i) the NYISO completes the Long Island Public Policy Transmission Needs (LIPPTN) process, (ii) NYSERDA completes its offshore wind cable routing yet, and (iii) the Commission finalizes the coordinated transmission planning.

Ocean Winds

Ocean Winds believes that this proposal needs additional clarity if the Project is to be tied to the NYSERDA OREC RFP. Ocean Winds recommends that the Hub should either be kept separate from the upcoming procurement or the OREC procurement should be delayed o allow for more time for the proposal to be refined. While Ocean Winds believes the Hub is an interesting and well-intentioned proposal, it asserts that the proposal is incomplete and thus could create confusion, risk, and an increased cost to rate payers. Ocean Winds suggests the Commission request that Con Edison address several issues related to the feasibility of the project, including issues related to land use, export cable landing, coordination with stakeholders, make ready and converter specifications, and site control.

Long Island Power Authority (LIPA)

LIPA believes there is a need for a careful approach. Given the \$1 billion cost estimate, LIPA recommends the Commission evaluate whether costs are appropriate for statewide cost allocation, whether costs are appropriate for statewide cost allocation, and whether Con Ed's justifications are in conformance with Commission orders. LIPA asserts that Con Edison should provide specific information about why its existing substations are inadequate, as directed by a January 2022 Commission Order. Additionally, LIPA claims that the Petition discussed and rejected alternative projects without a comprehensive review of the POIs and their associated cost

estimates. LIPA further claims that the Petition identified some fossil fuel plants as sites to utilize existing infrastructure for integrating offshore wind but did not provide comparative costs for using other points of interconnection that could be vacated by existing steam plants. LIPA recommends that the Commission require further analyses of other site locations that could be repurposed prior to approval of the Petition. Further, because the NYISO's Long Island Public Policy Transmission Need (PPTN) process is still ongoing, the Commission should consider deferring approval of the Petition until the NYISO selects solutions to the identified need.

LIPA also believes there needs to be further considerations given to reliability and resiliency. It states, for example, that the Petition does not consider the potential creation of the largest single contingency or common mode failure contingency and the associated reserve requirements or costs. LIPA believes the Commission should require further examination to assess reliability and planning implications of interconnection 4,500 megawatts (MW) to just one substation and 1,500 MW to an adjacent substation.

LIPA expresses concerns over issues related to cost recovery measures. Although stating that it supports statewide cost allocation for transmission projects connecting offshore wind, LIPA asserts that the Hub would provide extensive local benefits. LIPA states that it is unclear whether the benefits are ancillary to the Project or if they're incurring additional costs to obtain these benefits. LIPA recommends that the Commission consider the risk of potential cost overruns and a more complete examination of the revenue requirement and potential rate impact associated with the Project.

NextEra Energy Transmission New York, Inc. (NEETNY)

NEETNY recommends that the Commission reject the Petition. NEETNY specifies that, under Con Edison's assumed scenario, offshore wind developers would need to install up to three HVAC cables from each converter to the Hub. NEETNY notes that this would require numerous cables and siting and installing converters near the water, which would present significant coordination, permitting, and construction challenges. NEETNY conducted a constructability analysis of the proposal and found that it would not be possible to implement the Hub as proposed because the physical constraints of the East River would require the cables to be installed entirely within the federal channel, and siting of cable corridors is limited.

NEETNY asserts that the Hub fails to identify upgrades to the existing system needed to reliably deliver 6,000 MW of offshore wind. NEETNY states that, absent these upgrades, the injection capability of the Hub is only about 3,750 MW. NEETNY estimates that about \$500 million of additional system upgrades would be required to meet projected goals, and thus the Commission should require Con Edison to quantify the scope and cost of potential upgrades prior to approval of the Hub.

NEETNY believes that the Long Island PPTN proposals issued in response to the NYISO's solicitation are capable of delivering over 9,000 MW of offshore wind without the need for the Hub. Selection of a Long Island PPTN project could reduce or obviate the need for the Hub. NEETNY states that premature approval of the Hub could result in creating unnecessary transmission capacity at the expense of consumers. Additionally, NEETNY states that the Hub is not turn-key or made ready and offshore wind generators would incur significant and costly challenges, including routing cables to converter

stations, siting HVDC converter stations, and routing cables to the Hub.

NEETNY states that the Hub would introduce uncertainty into the offshore wind market and the NYSERDA OREP RFP solicitation. NEETNY notes that NYSERDA recent solicitation raised the possibility of allowing offshore wind projects to interconnection to the Hub, contingent upon approval of the Petition by the Commission. NEETNYT notes that the uncertainty regarding Commission approval creates risks for offshore wind developers including those related to whether the Hub is approved and moves successfully through the NYISO interconnection process, whether developers can site an HVDC converter station, whether developers can route HVDC cables through Verrazzano-Narrows to HVDC converter, and whether developers can route AC cables to the Hub.

NEETNY emphasizes that the Hub would be a regional, not local, Project and that Con Edison implicitly acknowledges this by noting the statewide benefits of the Project and its export capabilities to other regions. Specifically, NEETNY points out that more than half the energy collected and transmitted from the Hub would be delivered to regions other than New York City. NEETNY suggests that regional transmission projects seeking regional cost allocation be subject to competition through the NYISO PPTN process.

NEETNY believes that the use of the NYISO's competitive PPTN process would allow for the development of competitive bulk power solutions that can be more cost effective and allow for the efficient expansion of headroom for the renewable capacity required under the CLCPA. NEETNY states that the Hub would interconnect a large amount of capacity at a single location, which it asserts would increase the risk of manmade and extreme weather-related disruptions. NEETNY states

that competition, by contrast, would encourage developers to minimize costs, optimize solutions, and bring forth market innovation. NEETNY notes that the PPTN process also would include cost containment measures to incentivize developers to efficiently construct the project, reducing risk of potential cost overruns.

Anbaric Development Partners, LLC (Anbaric)

Anbaric believes the Commission inquiry needs to take a wider focus. It states that the Commission should consider policies and factors affecting infrastructure both upstream and downstream of the proposed Hub. Anbaric asserts its belief that the Hub should be subjected to an extensive review process that address several issues, including the number of cables that can feasibly be routed through the Verrazano Narrows, the minimum number of cables required to connect 6,000 MW of offshore wind to Zone J, the number of circuits that can feasibly be installed within the Upper New York Bay, any land routes that can be used to run cables to the Hub, and whether the Hub would disrupt existing plans for interconnecting offshore wind capacity to the Gowanus substation.

Like other parties, Anbaric asserts that the Hub should be examined in the context of a comprehensive transmission planning process; specifically, the NYISO's PPTN process. Anbaric states that the PPTN process would result in a full airing of issues regarding offshore wind transmission and include input from industry stakeholders prior to cost authorization. Anbaric notes that approval of Con Ed's request, by contract, would deprive the public from the benefits of a broad market of ideas.

LS Power Grid NY Corporation (LS Power)

LS Power states that there is no evidence supporting Con Edison's claim that the Hub can accept 6,000 MW without

significant curtailment and/or additional upgrades. LS Power asserts that the Petition lacks evidence that cables can be feasibly routed from generators to the Hub. LS Power also disagrees with Con Edison's assertion in the Petition that connection to the Hub from individual offshore wind generators would not require additional system upgrades. LS Power states that the NYISO class year process would determine if system upgrades are necessary and that Con Edison's assertion in this regard should be disregarded.

LS Power states that the Power Grid Study identifies routing constraints in New York City including navigation, infrastructure, and physical constraints. Specifically, LS Power notes that the Petition identifies potential HVDC converter sites upstream of the Narrows but does not identify converter sites at the Hub. LS Power states that, presumably, this means the Hub does not have sufficient space for any HVDC converter stations, meaning that the Hub would only be able to accommodate HVAC connections. LS Power concludes that Con Edison failed to meet the directive to show the feasibility of routing HVAC cables to the Hub from off-site converter stations.

LS Power takes issue with Con Edison's assertion that existing POIs from fossil fuel-fired power plants would not be available in the immediate future. In this respect, LS Power notes that Governor Hochul directed NYSERDA to provide additional scoring credits for projects that propose to repurpose fossil fuel-based electric generation infrastructure. LS Power states that the Commission should deny the Petition based on this alleged failure to consider alternative POIs.

LS Power notes that, rather than authorize Con Edison to proceed with the Hub, the Commission should utilize the NYISO's PPTN process to address offshore wind transmission and interconnections through a competitive process. It notes in

this respect that other states, such as New Jersey, are using competition to solve their offshore wind interconnection issues. LS Power states that if the Hub is in the public interest it would be identified through PPTN process.

The City of New York (NYC)

NYC opposes the Petition. In the wake of Hurricane Sandy, NYC has advocated for the development of a third transmission ring. NYC states that, while the Hub slightly expands the existing system, it neither adds a new transmission path, nor improve connectivity with Staten Island. NYC suggests that the Hub would because it would be located near the Farragut substation it would be subject to the same resiliency risks. NYC states that the Hub's location directly adjacent to the Farragut substation would not achieve NYC's goal of reducing "too big to fail" substations because it expands reliance on an existing location. NYC states that the Petition does not address or analyze the potential risks of a single interconnection point.

NYC also expresses concern with respect to potential curtailment of generation. For example, it notes that the Petition does not address the addition of the 2,550 MW capacity of the Clean Energy Standard Tier 4 projects. NYC also expresses concern regarding the impact the Hub would have on the transmission project selected through the Long Island PPTN process, as the Hub could curtail or aid power flow across that project. NYC states the Commission should ensure that the Hub would allow for complete use of all renewable resources intended to serve the load in NYC. Finally, like other parties, NYC advocates for the use of the NYISO PPTN process to provide cost-effective solutions to address offshore wind transmission.

Eversource Investment Service Company, LLC (Eversource)

Eversource supports the Hub proposal but believes it should be further evaluated by the Commission prior to approval. Eversource states it belief that the Petition is a good starting point for the development process. Eversource suggests the Commission examine the Hub as proposed and assess whether more information is warranted before any potential connection is made with NYSERDA's upcoming 2022 offshore wind solicitation or future solicitations.

Eversource states that the Commission should consider the several technical elements of the Hub, including cable landings and types of connections available at the Hub, soil conditions to determine cable capacities, cable routing issues related to submarine cables in a narrow waterfront landing area, the ability of the Hub site to accommodate the necessary infrastructure, the potential environmental impacts associated with the project, the increased risk and/or vulnerability for cable faults based on the limited design information in the Petition, and detailed cost, engineering, economic, permitting, and environmental assessments.

Eversource also believes there are several market elements the Commission should consider. For example, Eversource notes that the Hub has not entered the NYISO Class Year Study and that the timing and outcome of the Class Year process would determine the Hub's economic viability. Like other parties, Eversource states that there is a lack of clarity regarding the responsibility and potential costs associated with facility and system upgrades.

Eversource states that the incorporation of the Hub into NYSERDA's offshore wind solicitation could cause complications. Specifically, Eversource notes that offshore wind developers do not have access to necessary technical

interconnection information. Eversource also states that developers should be able to pursue points of interconnection that best suit their project and reflect the level of due diligence required by NYSERDA. For these reasons, Eversource believes the Commission should keep the Hub and the offshore wind solicitation separate.

New York Offshore Wind Alliance (NYOWA)

NYOWA supports the Hub but believes the Petition lacks important details. NYOWA notes that no technical or economic studies have been filed supporting Con Ed's assertion that the Hub will create 6 gigawatts (GW) of headroom for offshore wind. NYOWA also states that the Petition lacks supporting studies verifying grid stability and project curtailment, which NYOWA believes should be provided, and fails to establish the mechanism by which Con Edison would provide site control. NYOWA also states that the Petition should be supported by a study proving the feasibility of coordinating cable routes and landings for eight circuits.

NYOWA states that the use of a single POI for meshed-ready solutions might be counter-productive to resiliency and congestion relief objectives. Additionally, NYOWA believes the Petition lacks support for the \$1 billion price tag, as well as support for why the Hub is superior to other alternatives.

NYOWA supports testing the merits of the Hub through an open-source competitive solicitation process. NYOWA recommends using the NYISO PPTN process for this purpose. NYOWA asserts that utilization of the PPTN process could be implemented in a way that does not delay NYSERDA's OREC RFP solicitation. NYOWA strongly opposes imposing mandatory conditions on developers committing them to interconnecting to the Hub. NYOWA believes this would undermine developers' abilities to achieve the objectives of the CLCPA. Additionally,

there are too many uncertainties related to the Hub for developers to take the leap of faith.

However, if the Commission adopts the Petition, NYOWA believes the Commission should ensure that offshore wind developers who do use the Hub do not see the value of their OREC Purchase and Sales agreements erode due to delays with placing the Hub in service. Additionally, the Commission should not unduly penalize offshore wind developers who do not use the Hub. Further, the Commission should ensure the Hub does not introduce inequities in the bidding process.

Clean Energy Parties

Clean Energy Parties filed a joint comment letter supporting the Petition for the Hub on the grounds that it would aid New York in achieving the goals of the CLCPA. They state that the existing transmission system offers few available POIs to accommodate new, large sources of energy generation. They also note that upgrades to existing substations would be costly, and that there is limited availability of real estate for new substations and substation expansion. These limitations demonstrate a need for the Hub.

Clean Energy Parties note that the Hub would allow for the integration of large volumes of offshore wind and help in addressed the expected increase in load needed for the increased electrification of the building and vehicle sectors. Clean Energy Parties also state that the Hub would create 1,600 MW of additional capacity and contribute to the retirement of fossil-fueled powered Peaker Plants. Clean Energy Parties state that reconfiguring feeder connections would allow for large load areas to be serviced by multiple sources and substations, which would prevent power loss during extreme weather events. They state that, since the Hub would be located indoors, it would be protected from extreme weather events.

Clean Energy Parties assert that the Commission should clarify that developers who have already been awarded contracts are not required to connect to the Hub. However, the Commission should consider requiring that future solicitations utilize the Hub. They posit that, to address this issue, Con Edison could provide to the Commission letters of commitment from developers pledging to connect to the Hub, with a 50% subscription level being satisfactory. Finally, Clean Energy Parties state that Con Edison should provide more information supporting the desirability of the Hub to ensure that it is the lowest cost solution.

Attentive Energy (Attentive)

Attentive asserts that the Petition lacks supporting technical material demonstrating the feasibility of interconnecting 6 GW of offshore wind to the Hub. Attentive states that, when incorporating an interconnection solution into project planning or a NYSEERDA bid proposal, offshore wind developers are expected to do their due diligence including detailed reports on power flow and injection characteristics, grid upgrade and stability analysis, production cost modeling, site layout/conceptual design drawings, and constructability assessments. Until due diligence is completed, Attentive states, the Hub creates project uncertainty that could result in less cost-effective bids into the NYSEERDA solicitation.

Attentive states that the \$1 billion cost estimate lacks supporting details. Attentive believes it would be inappropriate to move forward with the Project without proper due diligence regarding the costs, conducted in a process that aligns with State transmission planning precedents, such as the NYSEERDA Tier 4 solicitation. Attentive adds that it is unclear how the Hub centralizing 6 GW of offshore wind addresses the resiliency and grid flexibility of NYSEERDA's meshed-ready

system. For these reasons, Attentive strongly recommends that NYSERDA not be required to consider only those solicitations that include the Hub as a POI.

Orsted N.A. Transmission Holding, LLC (Orsted)

Orsted strongly urges the Commission to not preemptively conclude that the Hub is the best possible solution regarding appropriate POIs for offshore wind energy. Orsted suggests that the Commission use the NYISO PPTN process to address offshore transmission needs on the grounds that the NYISO's competitive process would result in cost-effective transmission solutions.

Orsted recognizes the several technical challenges associated with using the Hub as a POI, given the lack of available space for HVDC converter stations and the feasibility of routing transmission cables through the Narrows. Orsted states that these challenges would require developers to find their own real estate to site a converter station within range of the Hub. Additionally, Orsted notes that there are engineering challenges regarding the installation of AC submarine cables, and environmental permitting risks associated with the installation of submarine cables, and concentrating the delivery of offshore wind to a single injection point could increase risk of a single fault preventing clean power from reaching the market.

APPENDIX B: SUMMARY OF COMMENTS IN RESPONSE TO SUPPLEMENTLIPA

LIPA notes that, according to Con Edison, the Hub may be needed for local reliability sooner than offshore wind development may dictate and maintains that such a “multi-value” project presents a challenge to determining fair cost allocation. LIPA highlights the Commission’s order declaring that the incremental costs associated with meeting CLCPA goals is the appropriate basis for statewide load ration share cost allocation, but questions what portion of the Hub should be subject to statewide cost allocation.

Due to the uncertain path of clean energy development, LIPA encourages the Commission to be cautious in determining that the Hub should be subject to statewide cost allocation. LIPA maintains that the Commission has set a high bar for projects to be approved for statewide cost allocation prior to the completion of the first cycle of the Coordinated Grid Planning Process (CGPP). Additionally, LIPA notes that later this year the results of NYSERDA’s OSW RFP and the NYISO’s Long Island PPTN solicitation would be known. LIPA believes that, if after these procurements there is a need for the Hub, the question of cost allocation could be reconsidered.

Orsted

Orsted does not take a position on Con Edison’s contention that the Hub is necessary to meet reliability needs in the summer of 2028, or whether the Hub costs should be considered CLCPA projects cost and recovered statewide. However, consistent with its comments on the original proposal, Orsted believes a competitive solicitation under the NYISO’s Public Policy Transmission Planning Process (PPTPP) should be pursued to achieve the most cost-effective transmission solution

in this case. Orsted urges the Commission to work with NYISO and use the PPTPP to identify potential transmission needs in NYISO Zone J that may be driven by public policy requirements. A competitive PPTPP, according to Orsted, would result in a range of concepts that could be superior to the Hub. It notes that the PPTPP could be used to request proposals that accommodate future projects, improve reliability and resilience, reduce congestion, and address the interconnection and space limitations of Zone J.

Orsted believes the Commission should help ensure that the NYISO seeks comprehensive solutions that address multiple factors when considering transmission solutions in Zone J. Orsted calls on the Commission to provide guidance to the NYISO that includes (i) optimizing the utilization of limited cable routes into and through New York Harbor, (ii) increasing transmission capacity and transfer capability between NYISO Zones J and I, H, G, E and F, (iii) reducing congestion and increasing reliability and resiliency, (iv) offering scalable solutions to meet transmission needs to incorporate carbon-free electricity while allowing for gradual ratepayer increase, (v) selecting POIs with sufficient physical onshore space to accommodate HVDC converters, and (vii) facilitating the implementation of a meshed offshore grid to limit the number of interconnection points.

Additionally, Orsted asserts that Con Edison's proposal to scale up the Hub, if there is significant interest in interconnecting at the Hub, does not address today's needs and "kicks the can" down the road to address Zone J interconnection issues. Orsted urges the Commission to consider additional alternatives to the "Scalable Reliability Proposal" iteration of the Hub to ensure it is the most cost-effective means of resolving future reliability needs in addition to

serving as a potential down payment on offshore wind transmission infrastructure.

LS Power

LS Power identifies several deficiencies in Con Edison's filing. First, LS Power reiterates that Con Edison's assertion that the Hub would provide up to 6,000 MW of offshore wind energy is misleading. According to LS Power, Con Edison cannot identify the scope of upgrades that would be required for connection at the Hub until a request is in the class year process, and notes that Con Edison defers any questions related to the scope of upgrades to that process. Additionally, LS Power avers that the Petition lacks any independent study analysis to support Con Edison's claim.

LS Power points out that Con Edison has yet to provide any evidence regarding the feasibility of physically routing cables to the Hub from offshore wind generators. The Commission's January 2022 Order, it maintains, requires an understanding of the feasibility and estimated costs of routing transmission lines. LS Power also notes that, even if it were electrically and physically possible to inject 6,000 MW, doing so would violate the requirement in the January 2022 Order to preserve flexibility in planning for a meshed-ready system. LS Power states that the routing of all offshore transmission to the Hub would moot any actions taken to preserve the optionality of a meshed-ready system.

LS Power notes that the Supplement does not truly identify an alternative to the Hub as described. The design and flaws of the original proposal, it proffers, remain unaddressed. In its view, the Supplement only expands the scope of the proposal to include a new bulk power element to meet a reliability need. LS Power states that the Hub even as reconfigured should be subject to the NYISO PPTPP.

Additionally, LS Power believes it is speculative to identify the Hub as an element to a reliability solution when it has been proposed for another purpose. LS Power asserts that it is discriminatory to consider only the Hub as a solution to this need. LS Power suggests that Con Edison's attempt to create urgency to get the Hub approved should be rejected and any issue should be resolved in the NYISO planning process.

LS Power highlights that Con Edison continues to dismiss alternatives out of hand. The newly identified need is fed radially, and Con Edison proposes in its Supplement to add an additional radial feed to meet the need. LS Power points to NYSERDA's September 2022 technical conference, which presented many alternatives, including NYPA and LS Power's King's Spoke Project, which would serve the need by creating several new network connections and providing offshore wind interconnection points. LS Power argues that Con Edison has a clear conflict of interest in reviewing alternatives. LS Power does not intend to usurp the Commission's broad planning authority, as noted in but reiterates that the NYISO planning process is a powerful tool and maintains that the Commission should exercise its authority to refer the creation of points of interconnection to the NYISO process.

NYC

NYC notes that, because the Supplement is so similar to the original proposal, the concerns raised in its initial comments remain as stated. NYC reiterates multiple concerns about the resiliency and reliability of the proposed project. Neither the new justification for the initial project nor the alternative described in the Supplement resolve the City's concerns. NYC states that Con Edison's proposal to build the project to a protection standard based on the 2015 Federal Emergency Management Agency Preliminary Flood Insurance Rate Map

is not sufficient to make the project or its alternatives increase resiliency of the electric system. According to NYC, the Commission should not approve a project with a cost of over \$1 billion that does not increase the resiliency of the electric system.

NYC maintains that, in order to appropriately respond to climate change, new facilities should be placed in areas that are less at risk of climatic events. NYC avers that the project proposed in the Supplement would remain at risk to sea level rise, storm surges, flooding, and related impacts. NYC also asserts that placing the project directly adjacent to an existing large substation leaves the electric system vulnerable to a single hostile attack, natural disaster, or single accident. NYC believes the better approach would be to reduce reliance on a small group of large substations by placing new transmission substations in geographically separated locations and by making substations electrically distinct.

Additionally, NYC notes that Con Edison has not offered any analysis demonstrating that adding a new substation next to the Farragut substation, which would rely on the same supply feeders and thus would add to system reliability. The project at issue here, NYC continues, is geographically and electrically remote from the need, and the diagrams in the Supplement do not convey the challenges associated with constructing new feeders in Queens and Brooklyn.

NYC questions whether Con Edison considered upgrading the existing Jamaica substation to 345 kV and why it is not proposing doing so. In the NYC's view, that option warrants careful consideration because it would be more compatible with the project selected by the NYISO to address Long Island PPTN, easier to construct, less susceptible to climate change related risks, and would foster diversification of supply.

NYC believes the initial proposal provides CLCPA benefits, and if it were to be approved by the Commission, costs should be socialized. However, if the Commission approves any of the alternatives in the Supplement, NYC does not believe those project costs should be socialized. NYC states that is very concerned by the precedent the project at issue in the Supplement was socialized because it would allow for socialized cost allocation of local reliability projects.

NYC notes that Con Edison estimates the costs would be \$1 billion for the originally proposed project and \$810 million and \$773 million for the alternatives. NYC argues that, under the alternatives, the primary purpose for which the project was conceived would be eliminated and the cost savings would be small. NYC highlights that the funding request is a very preliminary estimate, and the actual cost estimate could have a range of plus 50 percent and minus 25 percent, meaning the cost of the Hub could be substantially higher than estimated. The Supplement heightens the City's concerns over the estimated costs. As NYC emphasizes, the project was advanced and justified with the intention of achieving CLCPA goals, it was not advanced as a reliability or resiliency project. The scope change eliminates the primary purpose and rationale for this project, and customers are being asked to pay nearly the same amount or more, for a limited benefit. Therefore, NYC requests that the Commission deny cost recovery for any variant.

NYC suggests that the Commission require Con Edison to demonstrate that a new substation along the East River is a better, more cost effective, option. Moreover, NYC highlights the Brooklyn Queens Management Program as a successful method for reducing peak demand with opportunities for additional reductions. NYC postulates that, if that program is ultimately expanded, the need date for the Hub can be pushed further into

the future, allowing more time to consider more appropriate and cost-effective solutions. NYC cautions the Commission from approving an expensive project with admitted limited functionality. Instead, NYC suggests that the Commission direct Con Edison to supplement the record to aid in understanding and evaluating alternatives.

NYC notes that the only information in support of Con Edison's assertion that its proposal is cost-effective is a flawed comparison of interconnection costs, not project costs. Additionally, NYC highlights that the analysis lacks merit because the developers refused to accept those interconnection costs. Further, Con Edison has not agreed to cost containment, and appears to be unwilling to bear the risk of cost overruns. Con Edison has not offered any information or analysis to show that the initial project or its alternatives are actually the most cost-effective option, which is the premise of the Supplement. Additionally, NYC highlights Con Edison's opposition to the Commission's consideration of other, less costly, options, therefore, there is nothing in the record supporting the assertion that the Hub is the most cost-effective option.

Rise

Rise notes that Con Edison identifies real and problematic issues on the transmission system which necessitate Con Edison's Gateway Park Distribution Area Substation, which will be served by the project described in the Scalable Reliability Proposal. Rise agrees that the issues identified by Con Edison necessitate significant upgrades to achieve the State's policy goals while maintaining reliability because both needs are well settled. However, Rise offers that these issues be explored and remedied through existing processes to protect the system and ratepayers.

Rise suggests that the Hub be reviewed in a competitive process to ensure the development of efficient transmission that will promote state goals and maintain reliability in a cost-effective manner, while preserving optionality for future development. Although Con Edison has requested that the Hub not be reviewed through the PPTTPP because the Hub is needed to address near-term reliability needs, Rise suggests that the Hub can still be considered through a local upgrade proceeding, such as a rate case. Further, Rise claims that Con Edison contradicts itself by referring to the Hub as a multi-value CLCPA project that offers reliability and resiliency but argues the Scalable Reliability Proposal is purely local and not subject to the public policy transmission planning process. In Rise's view, it is unclear from the Petition, Supplement, and comments, taken together, whether Con Edison is arguing that the Hub should or should not be subject to the NYISO planning process. Rise recommends that the Commission direct Con Edison to submit a revised petition with information to help categorize the needs as bulk or local (after the NYSERDA OREC Solicitation and NYSIO PPTTPP has concluded).

Rise recognizes that a local utility is required to take action to upgrade its system to maintain reliability, and that the local utility may be best positioned to address this issue. However, Rise asserts that those upgrades should still be coordinated and subject to criteria established by the Commission to resolve Near Term CLCPA Needs, delineated in the Commission's September 2021 Order. Finally, Rise cautions against acting on petitions outside of an existing process because of the precedential effect.

NYOWA

NYOWA members recognize the paramount objective of the utilities obligation to maintain system reliability and support

necessary investments to meet reliability needs. However, NYOWA does not take a position on whether growth in customer demand served by the Brownsville Brooklyn area substation warrants investment in the local distribution system, as asserted by Con Edison. Further, NYOWA takes no position on whether the Hub represents a cost-effective alternative for meeting this reliability need.

NYOWA's objective is to reiterate its earlier position of underscoring the advantages of the Commission's PPTN process for eliciting competitive proposals for meeting transmission needs driven by public policy objectives. NYISO urges the Commission, in coordination with the NYISO, to continually evaluate the availability of electrically and economically viable points of interconnection for offshore wind. NYOWA also states that the Commission should not make the Hub the only source of transmission development to meet CLCPA goals.

**Typical Electric Residential Customers' Total Bill Impacts
Illustrative Only**

		\$998 million Hub Cost			\$773 million Hub Cost		
Service Classification 1	Bills at Current	Bills at	\$	%	Bills at	\$	%
Electric Sales	Rates	Proposed Rates	Change	Change	Proposed Rates	Change	Change
New York City - 280 kWh	\$96.12	\$97.18	\$1.06	1.1%	\$97.04	\$0.91	1.0%
Westchester - 425 kWh	\$128.32	\$129.92	\$1.60	1.2%	\$129.71	\$1.39	1.1%
600 kWh	\$185.95	\$188.21	\$2.26	1.2%	\$187.90	\$1.96	1.1%
Service Classification 1	Bills at Joint	Bills at	\$	%	Bills at	\$	%
Electric Sales	Proposal Rate Year 3	Proposed Rates	Change	Change	Proposed Rates	Change	Change
	(2025) Rates						
New York City - 280 kWh	\$95.63	\$96.69	\$1.06	1.1%	\$96.54	\$0.91	1.0%
Westchester - 425 kWh	\$134.83	\$136.43	\$1.60	1.2%	\$136.22	\$1.39	1.0%
600 kWh	\$182.16	\$184.42	\$2.26	1.2%	\$184.12	\$1.96	1.1%
<p>Note: Assumes recovery from Con Edison customers (including the Power Authority of the State of New York) only. Current rates are based on actual bills for the 12 months ending February 2023. Electric supply rate and tax for Rate Year 3 are as identified in the pending electric rate proceeding in Case 22-E-0064.</p>							