Nikolai Albert T. M. Wolfe, Esq.
Staff Attorney | Law Department

August 7, 2024

VIA ELECTRONIC MAIL

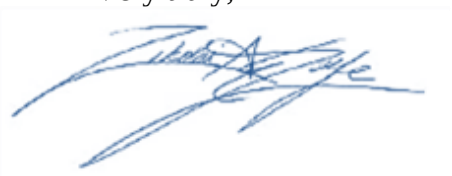
Honorable Michelle L. Phillips
Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

Re: **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: Petition Supplement of Consolidated Edison Company of New York, Inc. Petition Supplement to Propose an Alternative Brooklyn Clean Energy Hub

Dear Secretary Phillips:

Pursuant to Section 202(6) of the New York State Administrative Procedures Act, Consolidated Edison Company of New York, Inc. ("Con Edison") respectfully submits the attached petition requesting expedited approval and cost recovery of an expanded work scope at the Brooklyn Clean Energy Hub. For the justifications provided therein, Con Edison requests that the Public Service Commission grant the petition by August 29, 2024. Please contact me if you have any questions.

Very truly,



Nikolai Albert T. M. Wolfe

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
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BEFORE THE STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

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

PETITION OF CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. FOR EXPEDITED APPROVAL AND COST RECOVERY OF AN EXPANDED WORK SCOPE AT THE BROOKLYN CLEAN ENERGY HUB

I. INTRODUCTION

On April 20, 2023, the Commission approved Consolidated Edison Company of New York, Inc.'s ("Con Edison") Scalable Reliability proposal for the Brooklyn Clean Energy Hub.[1] The Scalable Reliability version of the Hub solves a reliability need on Con Edison's system and includes two interconnection points for the future addition of 1,500 MW to the New York City transmission grid.[2] In approving the Scalable Reliability version of the Hub, the Commission denied Con Edison's earlier proposal[3] to build a Hub with interconnection points that could

[1] Case 20-E-0197, Proceeding on Motion of the Commission to Implement Transmission Planning Pursuant to the accelerated Renewable Energy Growth and Community Benefit Act, Order Approving Cost Recovery for Clean Energy Hub (issued April 20, 2023) ("Hub Order").

[2] 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, Consolidated Edison Company of New York, Inc. Petition Supplement to Propose an Alternative Brooklyn Clean Energy Hub, December 13, 2022.

[3] 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, Petition of Consolidated Edison Company of

accommodate up to 6,000 MW of offshore wind or other renewable energy resources. The Commission acknowledged "that clean energy injections at the Hub will ultimately be needed,"[4] but at the time found a "lack of record evidence showing that the Hub can be feasibly used as a POI for 6,000 MW of offshore wind energy."[5] The Hub Order thus limited Con Edison to building a reliability project with only two interconnection points[6] and capped Con Edison's spending at $810 million.[7]

Subsequent developments have demonstrated that building additional interconnection points before the Hub is placed into service in May 2028 would benefit customers. Specifically, on June 25, 2024, four developers[8] responded to the NYISO's solicitation for the New York City Public Policy Transmission Need ("NYC PPTN") with 28 proposed solutions; these solutions all use the Hub as an interconnection point for their proposed clean energy projects. Many of these solutions will require more than the original two interconnection points included in the Hub Order. As approved by the Commission, however, the Hub is not configured to accommodate all the proposed solutions. If the NYISO selects a proposal that requires more interconnection points than the two currently approved by the Commission, the interconnection points would need to be

New York, Inc. for Approval to Recover Costs of Brooklyn Clean Energy Hub, April 15, 2022 ("April 2022 Petition").

[4] Hub Order, pp. 32-33.

[5] Hub Order, p. 2.

[6] Hub Order, Order Clause 1, p. 36.

[7] Hub Order, p. 34.

[8] *See* Exhibit A for the list of developers/development teams and their proposed NYC PPTN solutions which were submitted to NYISO. Additionally, as part of its collaboration with a number of developers, it is evident that all proposals utilize connections to the Hub.

constructed later at a higher cost and with more operational risks and inefficiencies than if built before the Hub is placed into service.

Con Edison has a limited opportunity to expand the Hub while it is under construction to include four additional interconnection points. But Con Edison cannot move forward without Commission authorization to build the additional interconnection points and approval for additional cost recovery above the cost cap. Moreover, time is of the essence. For Con Edison to expand the Hub and still build it by its required May 2028 in-service date, the supplier has advised Con Edison that it must order materials for the additional interconnection points by August 30, 2024. Accordingly, pursuant to Section 202(6) of the New York State Administrative Procedure Act, Con Edison seeks an expedited order by August 29, 2024, authorizing it to build four additional interconnection points at the Hub and to recover its incremental costs above the Hub's currently approved cost cap.

II. JUSTIFICATION TO EXPAND THE APPROVED PROJECT SCOPE

Expanding the scope of the Hub *now* (pre-energization) to include four additional interconnection points will cost approximately $66 million above the $810 million cost cap, but it will benefit customers by reducing overall costs and avoiding the operational risks and inefficiencies of installing the interconnection points after the Hub is energized.

First, building the interconnection points post-energization will result in delays and increased equipment costs. Supply chain challenges continue to impact the utility industry because of competition for materials to build renewable infrastructure and increases in material costs continue at an upward trend. In addition, if the Company is required to install breakers for the interconnection points after the Hub is in service (*i.e.*, "live"), it must schedule outages on the 345kV transmission system, which will increase the time to perform the work and add

approximately $25-$30 million per installation for a total estimated cost of $100 to $120 million, a net increase of $34M - $54M.[9]

Second, any delay will significantly increase the future construction time for the additional interconnection points. After the in-service date for the Hub, each of the four interconnection points will require a separate outage at the Hub to install the equipment. As a result, assuming there are no other higher priority needs on the transmission system in this area, the installation of the four additional interconnection points would be completed no earlier than 2032, with a total minimum construction schedule of four years.

Third, the Hub is in a major transmission area. Once the Hub is complete, there will be eight 345 kV transmission feeders connected 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. Installing points of interconnection after the in-service date for the Hub will require scheduled outages which are limited. Using limited outages for the installation of points of interconnection reduces the Company's flexibility for managing the transmission system and could delay other necessary work. Installing the points of interconnection pre-energization avoid those operational conflicts.

III. CHANGED CIRCUMSTANCES SINCE THE HUB ORDER

Con Edison initially proposed to build eight interconnection points at the Hub.[10] The Commission denied the proposal because it was concerned about whether energy providers could

[9] See Exhibit B for an estimate of additional costs of delay, included in the BCEH Whitepaper.

[10] 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, Petition of Consolidated Edison Company of New York, Inc. for Approval to Recover Costs of Brooklyn Clean Energy Hub, April 15, 2022. Six interconnection points were at the Hub and two were at the Farragut 345 kV Substation.

access the proposed interconnection points and because it determined that Con Edison had not provided sufficient detail regarding the feasibility of using the Hub as the interconnection point for up to 6,000 MW of offshore wind.[11] The Commission was specifically concerned about the "limited capability" to route transmission cables to the Hub.[12] At the same time, the Commission recognized that "… 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 . . . clean energy injections at the Hub will ultimately be needed."[13]

Subsequent developments since the Hub Order have given the Commission more information which should allay its concerns about feasibility while validating its prediction that additional interconnection points would be necessary. In the response to NYISO's NYC PPTN solicitation, all four developers proposed solutions that require points[14] of interconnection at the Hub.[15] Developers were required to submit "complete end-to-end proposals comprised of both offshore and onshore components to enable power injection into Zone J."[16] All submitted proposals were required to provide detailed feeder routing between identified transmission assets up to and including the final Points of Interconnection.[17] Specifically, the required components

[11]Hub Order, p. 21.

[12]Hub Order, p. 22.

[13] Hub Order, pp. 32-33.

[14] See New York Independent System Operator, Public Policy Transmission Projects proposed to meet the New York City Offshore Wind Public Policy Transmission Need, June 25, 2024, attached as Exhibit A.

[15] The current Hub design would only support two points of interconnection in the initial build-out.

[16] New York Independent System Operator, New York City Offshore Wind Public Policy Transmission Need Project Solicitation, April 4, 2024, p. 2, attached as Exhibit C.

[17] See New York Independent System Operator, Public Policy Transmission Planning Process Manual Attachments, Attachment C "Data Submission for Public Policy Transmission Projects, dated April 2, 2024, p. 4, attached as Exhibit D.

include "[o]ffshore transmission (i.e., submarine cables)" and "[o]nshore transmission path(s) (i.e. terrestrial cables) from cable landing points to points of interconnection (POIs) in Zone J…"[18] As noted above, all 28 proposed solutions have selected the Hub as a point of interconnection. The Commission can take notice of these proposals and draw the reasonable conclusion that developers, before paying the application fee,[19] submitting a detailed engineering proposal in response to the NYISO solicitation, and publicly initiating the intensive interconnection process for a given project, have undertaken sufficient due diligence regarding the feasibility of routing transmission cables to the Hub to address the Commission's concern in this regard. The developers' review of the routes needed to inject power into Zone J led them to conclude that the Hub was a feasible and desirable location for delivering offshore wind energy.[20]

IV. COST RECOVERY

Because the Commission authorized Con Edison to build only two interconnection points and capped costs at $810 million, Con Edison cannot move forward without the Commission expressly authorizing additional interconnection points and expressly authorizing cost recovery above the $810 million cap for those additional interconnection points. For these incremental costs Con Edison requests the same cost recovery provisions approved for the rest of the project; namely, a surcharge to recover the carrying costs from Con Edison's customers after the Hub is placed into

[18] See n. 16, *supra.*

[19] Developers are required to submit to the NYISO a non-refundable application fee of $10,000 and a study deposit of $100,000 for each solution submitted.

[20] Given its feasibility and desirable location on the system, Con Edison expects that any additional interconnection points will be utilized in the interconnection process even if they aren't all ultimately utilized by the winning PPTN proposal.

service and until such costs are reflected in base rates and the right to petition the Commission for state-wide cost allocation.

V. REQUEST FOR EXPEDITED RELIEF

The Commission should grant this petition on an expedited basis as necessary for the general welfare pursuant to Section 202(6) of the New York State Administrative Procedure Act and should do so by August 29.[21] If Con Edison does not order the equipment for the additional interconnection points by August 30, it cannot build them before the Hub goes into service even if the Commission acts later. The vendor has advised Con Edison that, if the Company does not place the order by August 30, the vendor will release the Company's current queue position for equipment manufacturing to other purchasers. As such, the Company will not receive the equipment for the additional interconnection points in time for the Hub's May 2028 in-service date.

Granting the petition on an expedited basis as necessary for the general welfare is supported by Commission precedent. In *Central Hudson*, customers would have lost the opportunity for federal funding if the Commission did not approve an easement on an expedited basis. The Commission recognized that the potential economic benefits that flowed from approval of the easement promoted the general welfare and granted expedited approval under SAPA 202(6).[22] Here, customers will lose the opportunity to avoid significant cost increases if the Commission does not approve the petition by August 29 and Con Edison does not order the equipment by

[21] A draft SAPA Notice is attached as Exhibit E.

[22] Case 09-M-0739, Petition of Central Hudson Gas & Electric Corporation for Expedited Approval Pursuant to Section 70 of the Public Service Law of a Grant to Dutchess County of an Easement Located in LaGrange, New York in Connection with the Dutchess Rail Trail Project and Request for Emergency Action, November 12, 2009.

August 30. Absent Commission action, the costs for the four additional interconnection points will increase from approximately $16.5 million per interconnection to $25-30 million per interconnection (i.e., a potential cost avoidance of $34 -$54 million for customers). As in *Central Hudson*, the economic benefits to customers of granting the petition promote the general welfare and justify approval under SAPA 202(6). Expedited approval also supports the general welfare because Con Edison can install the additional interconnection points while building the Hub, which will result in fewer operational risks and outages at the facility.

VI. CONCLUSION

Circumstances have changed since the Commission initially approved the Hub. The NYC PPTN process has moved forward, and all 28 solutions propose to use the Hub as an interconnection point for offshore wind. At this stage in construction, Con Edison has a limited opportunity to build four additional interconnection points at the Hub to accommodate those proposals that would require them. Waiting to build them until after the Hub goes into service would increase equipment and construction costs, significantly lengthen the schedule for building future interconnection points, and reduce Con Edison's flexibility managing the transmission system due to required outages.

Because the Hub Order specifically denied Con Edison's request for additional interconnection points at the Hub and limited cost recovery to the Scalable Reliability version of the Hub with only two interconnection points, Con Edison cannot build additional interconnection points without the Commission expressly authorizing them and expressly authorizing cost recovery above the $810 million cap for them. In addition, Con Edison cannot build the additional interconnection points unless the Commission acts by August 29, 2024, because the vendor has

stated that ordering the equipment by August 30 is necessary for the Hub to meet its in-service date.

Accordingly, Con Edison requests that the Commission grant this petition by August 29, 2024, and issue an order authorizing additional interconnection points and expressly authorizing cost recovery above the $810 million cap which will enable Con Edison to build four additional interconnection points and authorizing cost recovery above the $810 million cap for those additional interconnection points. Con Edison also requests authority to implement 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 and the possibility of petitioning the Commission for state-wide cost allocation.

Dated: August 7, 2024

Respectfully submitted,

CONSOLIDATED EDSION COMPANY OF NEW YORK, INC.

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Exhibit A

New York ISO
Independent System Operator

Public Policy Transmission Projects proposed to meet the New York City Offshore Wind Public Policy Transmission Need

June 25, 2024

Developer	Project Name	PPTP #	Queue #	Proposed In-Service Date	No. of Offshore Platforms	No. of Offshore Cables	Zone J Injection Point(s) for Onshore Converter Stations
Energy Re Giga-Projects USA, LLC	Clean Borough Power Link #1	T102	Q1685	12-2032	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV
Energy Re Giga-Projects USA, LLC	Clean Borough Power Link #2	T103	Q1686	12-2032	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Proposed Manhattan Clean Energy Hub 345kV
Energy Re Giga-Projects USA, LLC	Clean Borough Power Link #3	T104	Q1687	12-2032	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Proposed Astoria Clean Energy Hub 345kV
Viridon New York Inc.	Liberty Link 1	T105	Q1688	12-2032	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV
Viridon New York Inc.	Liberty Link 2	T106	Q1689	12-2032	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV
Viridon New York Inc.	Liberty Link 3	T107	Q1690	12-2032	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Proposed Manhattan Clean Energy Hub 345kV
New York Transco LLC	Energy Link New York Solution 1	T108	Q1691	01-2033	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV
New York Transco LLC	Energy Link New York Solution 2	T109	Q1692	01-2033	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV
New York Transco LLC	Energy Link New York Solution 3	T110	Q1693	01-2033	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Proposed Edgewater Clean Energy Hub 345kV
New York Transco LLC	Energy Link New York Solution 4	T111	Q1694	01-2033	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Proposed Edgewater Clean Energy Hub 345kV
New York Transco LLC	Energy Link New York Solution 5	T112	Q1695	01-2033	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Proposed Edgewater Clean Energy Hub 345kV
New York Transco LLC	Energy Link New York Solution 6	T113	Q1696	01-2033	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Proposed Astoria Clean Energy Hub 345kV
New York Transco LLC	Energy Link New York Solution 7	T114	Q1697	01-2033	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Proposed Edgewater Clean Energy Hub 345kV Proposed Astoria Clean Energy Hub 345kV
New York Transco LLC	Energy Link New York Solution 8	T115	Q1700	01-2033	4	4 (HVDC)	Proposed Newtown Creek Energy Hub 345kV

New York ISO
Independent System Operator

Developer	Project Name	PPTP #	Queue #	Proposed In-Service Date	No. of Offshore Platforms	No. of Offshore Cables	Zone J Injection Point(s) for Onshore Converter Stations
New York Transco LLC	Energy Link New York Solution 9	T116	Q1701	01-2033	4	4 (HVDC)	Proposed Newtown Creek Energy Hub 345kV
New York Transco LLC	Energy Link New York Solution 10	T117	Q1698	01-2033	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Proposed Edgewater Clean Energy Hub 345kV Proposed Astoria Clean Energy Hub 345kV
New York Power Authority & LS Power Grid New York Corporation I	Five Boro Energy Connect – Mint	T118	Q1699	10-2032	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Rainey 345kV Academy 345kV
New York Power Authority & LS Power Grid New York Corporation I	Five Boro Energy Connect – Sage	T119	Q1702	09-2032	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Academy 345kV Proposed New Astoria 345kV
New York Power Authority & LS Power Grid New York Corporation I	Five Boro Energy Connect – Olive	T120	Q1705	06-2033	5	5 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Rainey 345kV Academy 345kV Proposed New Astoria 345kV
New York Power Authority & LS Power Grid New York Corporation I	Five Boro Energy Connect – Kelly	T121	Q1706	08-2033	5	5 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Rainey 345kV Academy 345kV Proposed New Astoria 345kV
New York Power Authority & LS Power Grid New York Corporation I	Five Boro Energy Connect – Hazel	T122	Q1707	12-2033	5	5 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Rainey 345kV Academy 345kV Proposed New Astoria 345kV
New York Power Authority & LS Power Grid New York Corporation I	Five Boro Energy Connect – Navy	T123	Q1708	09-2032	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Proposed New Astoria 345kV Proposed Teleport 345kV
New York Power Authority & LS Power Grid New York Corporation I	Five Boro Energy Connect – Royal	T124	Q1709	05-2033	5	5 (HVDC)	Brooklyn Clean Energy Hub 345kV Rainey 345kV Proposed New Astoria 345kV Proposed Teleport 345kV

New York ISO
Independent System Operator

Developer	Project Name	PPTP #	Queue #	Proposed In-Service Date	No. of Offshore Platforms	No. of Offshore Cables	Zone J Injection Point(s) for Onshore Converter Stations
New York Power Authority & LS Power Grid New York Corporation I	Five Boro Energy Connect – Cobalt	T125	Q1712	10-2033	6	6 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Rainey 345kV Academy 345kV Proposed New Astoria 345kV Proposed Teleport 345kV
New York Power Authority & LS Power Grid New York Corporation I	Five Boro Energy Connect – Ruby	T126	Q1703	09-2032	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Rainey 345kV Proposed New Astoria 345kV
New York Power Authority & LS Power Grid New York Corporation I	Five Boro Energy Connect – Rose	T127	Q1704	09-2032	4	4 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Rainey 345kV Proposed New Astoria 345kV
New York Power Authority & LS Power Grid New York Corporation I	Five Boro Energy Connect – Honey	T128	Q1711	10-2033	5	5 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Academy 345kV Proposed Ravenswood 345kV/138kV Hub
New York Power Authority & LS Power Grid New York Corporation I	Five Boro Energy Connect – Golden	T129	Q1710	10-2033	6	6 (HVDC)	Brooklyn Clean Energy Hub 345kV Farragut 345kV Academy 345kV Proposed New Astoria 345kV Proposed Ravenswood 345kV/138kV Hub

Note #1: Information in this summary is based on preliminary review of project applications and is subject to change.

Exhibit B

Central Operations / Substation Operations
2024

1. Project / Program Summary

Type: ☒ **Project** ☐ **Program**	**Category:** ☒ **Capital** ☐ **O&M** ☐ **Regulatory Asset**
Work Plan Category: ☐ **Regulatory Mandated** ☐ **Operationally Required** ☒ **Strategic**	
Project/Program Title: Brooklyn Clean Energy Hub Expanded Proposal	
Project/Program Manager: Various	**Project/Program Number (Level 1):**
Status: ☒ **Initiation/Planning** ☐ **In-Progress (Projects Only)** ☐ **On-going (Programs Only)**	
Estimated Start Date: August 2024	**Estimated Date In Service:** May 2028
2025-2029 Funding Request ($000) **Capital:** $66,000 **O&M:**	

Work Description:

In April 2023, the Commission issued an order approving cost recovery for a scalable reliability version of the Brooklyn Clean Energy Hub (BCEH), which Con Edison proposed as a new 345kV transmission substation needed for reliability and to facilitate interconnecting clean energy resources to Con Edison's system.

The scalable reliability version of the BCEH is currently planned to include the design and construction of a double ring bus substation with fourteen 345kV circuit breakers, six feeder positions for existing transmission lines and four 345kV/138kV autotransformers. The BCEH will supply the new Gateway Park Distribution Substation as well as supply planned future distribution substations to meet local reliability needs that will arise due to load growth and electrification. The current BCEH design includes two interconnection points, and will be scalable to accommodate additional Points of Interconnection (POI) for large scale renewable resources, such as Offshore Wind Generation (OSW) and potentially other clean energy resources.

Pursuant to significant developer interest in using the BCEH as an interconnection point for their clean energy projects, further expansion of the BCEH from the approved scalable reliability version is now necessary. Specifically, the Company must build four additional 345kV circuit breakers and other associated equipment to accommodate the proposed clean energy projects. Constructing these needed interconnection points before the BCEH is placed in service will provide the most benefit to customers. Waiting until after the BCEH goes in service will increase equipment and construction costs, significantly lengthen the schedule for building future interconnection points, and reduce Con Edison's flexibility in managing the transmission system. Due to outage scheduling constraints, the Company would be limited to constructing only one breaker and point of interconnection per outage window, thus requiring four separate outage windows to complete this work. Con Edison has a narrow window of opportunity to build the required additional interconnection points at the BCEH. Engineering and long lead equipment procurement for this expansion must begin in August 2024 to complete these four points of interconnection prior to BCEH energization.

Therefore, Con Edison proposes to construct the four points of interconnection within the current BCEH project to avoid increased equipment costs and lengthy transmission outages, and better position the BCEH to realize New York State's clean energy goals.

Justification Summary:

In 2019, New York State passed the nation-leading Climate Leadership and Community Protection Act (CLCPA). CLCPA's targets are among the most rigorous of any major economy in the world and include goals of 70% renewable energy by 2030 with 100% emanating from zero-emission electricity by 2040. The Accelerated Renewable Energy Growth and Community Benefit Act established the requirement to interconnect 9,000 MW of Offshore Wind (OSW) by 2035. The BCEH Scalable Reliability design should be reconfigured to help achieve this goal by creating POIs for up to 4,500 MW of OSW (in additional to the 1,500 MW expected from the two approved BCEH interconnection points).

The Public Policy Transmission Need (PPTN) in New York City is a requirement driving the need for additional transmission facilities and points of interconnection to receive/deliver the output of OSW generation resources. There is widespread interest for third-party developers to connect to the BCEH, as demonstrated by all twenty-eight proposed PPTN solutions including the BECH as an interconnection point for OSW.

While the BCEH is designed to facilitate expansion, additional re-configurations are necessary to accommodate aggressive timelines in public policy driven transmission needs and will require the addition of four 345kV breakers to the scalable reliability scope of work. With the addition of the four 345kV circuit breakers, additional POIs can be created to accommodate additional OSW connections. Advancing the installation of the additional equipment now, as part of the initial station construction, reduces barriers to energization for renewable and clean energy sources as well as offers less schedule and supply chain constraints for future interconnections. Performing this additional work in a non-energized station offers greater system flexibility in an otherwise congested part of the transmission system.

Relationship to Broader Company Plans, Initiatives and the NYS Climate Leadership and Community Protection Act

The system improvements implemented by expanding the BCEH scope of work will better align with the Company's to addressing constraints to renewable energy delivery within the system and to satisfying reliability, resiliency, safety, and compliance regulations.

2. Supplemental Information

Alternatives

The alternative is to build the four additional 345kV circuit breakers post energization of the BCEH rather than pre-energization. This will be done at a greater cost and will require significant equipment outages as well as other constraints should there be additional proposals in the PPTN process requesting for the BCEH as an interconnection point.

Risk of No Action

If this equipment is not procured by August 2024, expansion of the facility will be necessary post station energization and will require extensive transmission outages during limited times of the year, at a compressed schedule and increased costs. Once the BCEH is in service, the Company anticipates that only one circuit breaker per outage season and one point of interconnection can be completed per year to accommodate transmission system outage constraints.

Non-Financial Benefits

The project will achieve environmental policy objectives and help to facilitate achievement of CLCPA goals while avoiding potential outage scheduling conflicts in a congested part of the transmission system.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

Adding these points of interconnection after the BCEH has been energized will increase cost and have negative schedule impacts. Compressed work schedules within limited outage windows will drive higher costs. Construction and equipment pricing will increase in outer years.

The cost avoidance per Point of Interconnection is based on recent pricing information from equipment manufacturers and is estimated to be between $8.5-13.5M per POI, or between $34 and $54M for all four. The pre-energization scenario below is based on the current BCEH pricing information from the equipment manufacturer and installer with standard Con Edison overhead and contingency factors applied. The post-energization scenarios are based on pricing information from the equipment manufacturer and installer for similar work in an energized substation on Con Edison's system with standard Con Edison escalation, overhead, and contingency factors applied. The below chart illustrates the breakdown of the anticipated cost avoidance:

Per POI Costs ($M)	Pre-Energization	Post-Energization 2029	Post-Energization 2032
Direct Material	6	8	9
Installation	3	6	7
Overheads	3.5	5.5	6.5
Contingency	4	6	7
Total	**16.5**	**25.5**	**29.5**

Some of the drivers of the cost avoidance associated with the pre-energization scenario include:

- Discounted pricing associated with bulk procurement as this order will be included in the larger BCEH order as opposed to a smaller order for the post-energization scenarios;
- The price certainty when issuing purchase order in 2024;
- The efficiencies gained when working multiple POIs in parallel;
- The reduced installation costs achieved through flexible scheduling. That is, there are costs associated with taking outages and working within compressed schedules while the station is energized.

Project Risks and Mitigation Plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

This project is related to the previously filed Brooklyn Clean Energy Hub Scalable Reliability Proposal. Building the additional equipment as part of the initial construction removes a barrier to energization for clean energy sources, reduces schedule risk of future interconnections, and facilitates the timely completion of the NYC PPTN if solutions utilizing BCEH are selected. In addition, installation of these breakers in a non-energized BCEH creates more system flexibility in a congested part of the system.

3. Funding Detail ($000)

2025-2029 Request:

Total Request by Year:

	2024	2025	2026	2027	2028
O&M					
Regulatory Asset					
Capital (Total)	$5,000	$5,000	$20,000	$21,000	$15,000
Labor					
M&S					
Contract Svcs.					
Other					
Overheads					

Exhibit C

New York ISO
Independent System Operator

NEW YORK CITY OFFSHORE WIND PUBLIC POLICY TRANSMISSION NEED PROJECT SOLICITATION

Response due June 3, 2024 11:59 PM EDT

April 4, 2024

Dear NYISO Stakeholder or Interested Party:

With this letter, the NYISO solicits Public Policy Transmission Projects[1] and Other Public Policy Projects[2] to address the New York City Offshore Wind Public Policy Transmission Need ("NYC PPTN") for consideration in the NYISO's Public Policy Transmission Planning Process.

I. New York City Offshore Wind Public Policy Transmission Need

On August 31, 2022, the NYISO issued a letter inviting stakeholders and interested parties to submit proposed transmission needs driven by Public Policy Requirements to the NYISO on or before October 31, 2022.[3] On November 7, 2022, the NYISO filed with the New York State Public Service Commission ("PSC") proposals for transmission needs driven by Public Policy Requirements submitted by 17 entities.[4] On November 8, 2022, the NYISO also submitted to the Long Island Power Authority nine proposals for transmission needs that, as proposed, would require a physical modification to transmission facilities in the Long Island Transmission District. On December 21, 2022, the PSC published the proposed needs in the State Register for comments in accordance with the New York State Administrative Procedure Act.[5]

Following the public comment period, the PSC issued an order on June 22, 2023 stating:

> The [PSC] finds that the [the Climate Leadership and Community Protection Act (CLCPA)] constitutes a Public Policy Requirement driving the need for transmission to support the injection of offshore wind generation into New York City (NYISO Zone J). Solicitations to that need shall:

[1] Capitalized terms in this letter refer to defined terms in the NYISO's Open Access Transmission Tariff ("OATT") or the NYISO Public Policy Transmission Planning Process Manual ("PPTPP Manual").

[2] An Other Public Policy Project is defined as a "non-transmission project or a portfolio of transmission and non-transmission projects proposed by a Developer to satisfy an identified Public Policy Transmission Need."

[3] The requirements for the Public Policy Transmission Planning Process are set forth in Attachment Y of the OATT and the NYISO PPTPP Manual.

[4] The NYISO posted these submittals on its Planning Studies website under "Proposed Needs" contained within the "Public Policy Documents" folder on the NYISO's Planning Studies website, which can be accessed at: https://www.nyiso.com/cspp.

[5] Notice of Proposed Rulemaking, *Proposed Public Policy Transmission Needs/Public Policy Requirements, As Defined Under the NYISO Tariff*, New York State Register (December 21, 2022), *available at* https://dos.ny.gov/system/files/documents/2022/12/122122.pdf.

1) Accommodate the full output of at least 4,770 MW of incremental offshore wind generation injected into New York City (Zone J), under applicable reliability standards, without reducing the overall output of other renewable resources interconnected in Zones J and K.

2) Consist of complete end-to-end proposals comprised of both offshore and onshore components to enable power injection into Zone J. The components should include:

    - One or more offshore interconnection point(s);
    - Offshore transmission (i.e., submarine cables);
    - Sites for cable landing points;
    - Onshore transmission path(s) (i.e., terrestrial cables) from cable landing points to points of interconnection (POIs) in Zone J, including sites for converter stations, if necessary; and
    - Necessary improvements to and/or expansion of the existing onshore transmission system.

3) Include plans for how offshore wind generation would interconnect to the end-to-end transmission proposal at the offshore interconnection points. Examples may include, but are not limited to, individual standalone DC connectors, each for a single offshore wind project; or an offshore substation for HVDC cable(s) and offshore wind project export line(s).

4) Demonstrate plans to complete all permitting and construction activities necessary to achieve an in-service date no later than January 1, 2033.[6]

In the Order, the PSC referred the NYC PPTN to the NYISO to consider solutions to support the injection of offshore wind generation into New York City. The Order prescribed the following criteria for the NYISO to consider in its evaluation in accordance with its OATT:

1) Scenarios representing up to 8,000 MW of incremental offshore wind generation injected into New York City should be used to evaluate the performance of proposed solutions.

2) Minimize, to the extent possible, the use of AC submarine cables in constrained areas.

[6] Case No. 22-E-0633, *Matter of New York Indep. Sys. Operator, Inc. Proposed Public Policy Transmission Needs for Consideration for 2022,* Order Addressing Public Policy Requirements for Transmission Planning Purposes (June 22, 2023), at 47 ("the Order"), *available at* https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId= {A077E488-0000-C217-BAED-C4B0826480C5}.

3) Demonstrate that [proposed solutions] do not preclude or foreclose on the ability to expand and/or integrate into a future offshore transmission network.

4) No requirement to relieve bulk export constraints on the interface from Zone J to the rest of the New York Control Area during light load conditions.

5) Optimize the use of intended corridors to achieve the intended level of offshore wind integration and account for the findings of NYSERDA's Cable Corridor Assessment.

6) Take into consideration potential interference and/or synergy with the Long Island Offshore Wind Export PPTN.[7]

In addition to technical requirements and evaluation criteria, the Order proposes supplemental criteria outlined in its Appendix B for consideration during the NYISO's evaluation and ranking of proposed transmission projects, which includes twelve design principles for Developers to optimize routing of multiple offshore wind cables in the marine environment and at landfalls and over land. The Order also stressed the importance of Developers having the necessary real property rights for the development of their proposed solutions so that they are "in a position to move forward promptly in order to meet the 2033 in-service date."[8] In doing so, the Order prescribed an evaluation criterion to consider the extent that each Developer has the necessary real property rights to implement its proposed Public Policy Transmission Project.[9]

Following the PSC's issuance of the Order, DPS staff filed three documents, on September 7, 2023,[10] January 17, 2024,[11] and February 14, 2024,[12] that addressed questions on the requirements contained in the Order. Additionally, DPS staff, in a letter to the NYISO, further provided direction in preparing the Viability and Sufficiency Assessment (VSA) baseline

[7] *Id.* at 48–49
[8] *Id.* at 43.
[9] *Id.*
[10] Case No. 22-E-0633, *Matter of New York Indep. Sys. Operator, Inc. Proposed Public Policy Transmission Needs for Consideration for 2022*, Letter with Question/Answer for NYC Public Policy Transmission Need (September 7, 2023), *available at* https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={D0D6748A-0000-C412-9633-A73311B58EDF}.
[11] Case No. 22-E-0633, *Matter of New York Indep. Sys. Operator, Inc. Proposed Public Policy Transmission Needs for Consideration for 2022*, Letter with Question & Answer (January 17, 2024), *available at* https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={5095188D-0000-C01B-9C28-4F73EBCD2D21}.
[12] Case No. 22-E-0633, *Matter of New York Indep. Sys. Operator, Inc. Proposed Public Policy Transmission Needs for Consideration for 2022*, PPTN Questions and Answers (February 14, 2024), *available at* https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={70FAA88D-0000-C810-9C28-D8E1A22A61CB}.

case in response to updates from the cancellation of Offshore Renewable Energy Certificate (OREC) agreements with two offshore wind generation projects.[13]

II. Stakeholder Discussions and Technical Conferences

The NYISO made presentations at combined meetings of the Electric System Planning Working Group (ESPWG) and the Transmission Planning Advisory Subcommittee (TPAS)[14] to review the Order, the PSC's determination of the Public Policy Requirement, and the nature of the resulting NYC PPTN.[15] The NYISO held technical conferences on November 6, 2023 and December 7, 2023 with Developers and interested parties to provide information and obtain input on the NYISO's application of the selection metrics set forth in Section 31.4.8.1 of the OATT for purposes of soliciting solutions to the Public Policy Transmission Need.[16]

On September 7, 2023, as noted above, the DPS staff filed with the PSC a "Letter with Question/Answer for NYC Public Policy Transmission Need" document, which was jointly prepared with the NYISO, that responded to stakeholders' questions on requirements contained in the Order.[17] The NYISO also has prepared documents[18] containing answers to frequently asked questions received from Developers and stakeholders. Additionally, the NYISO has developed a "Developer Technical Guidance Document" to provide additional technical guidance in the preparation of proposed solutions.

Furthermore, the NYISO has established sufficiency criteria in accordance with the criteria set forth in the Order and has developed a VSA baseline powerflow model and associated power flow results to aid interested Developers in developing proposed solutions. The attached "Sufficiency Criteria, Evaluation Criteria, Project Submittal Requirements, and Additional Information" document details the criteria that the NYISO will apply in assessing the sufficiency of each proposed Public Policy Transmission Project and Other Public Policy Project to satisfy the NYC PPTN.

Future updates and discussions regarding the NYC PPTN will be held at ESPWG and TPAS throughout the assessment and evaluation process.

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[13] Case No. 22-E-0633, *Matter of New York Indep. Sys. Operator, Inc. Proposed Public Policy Transmission Needs for Consideration for 2022*, DPS Staff Letter to NYISO (February 14, 2024), *available at* https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={90F7A88D-0000-CF19-829E-3550AB1E4094}.

[14] Meetings were held on July 25, 2023, August 22, 2023, September 21, 2023, October 2, 2023, October 24, 2023, November 21, 2023, December 19, 2023, January 23, 2024, February 6, 2024, February 22, 2024, March 8, 2024, and March 21, 2024.

[15] The NYISO's presentations are posted on its website under meeting materials at the following links: https://www.nyiso.com/espwg and https://www.nyiso.com/tpas.

[16] OATT § 31.4.4.3.1; Public Policy Transmission Planning Process Manual ("PPTPP Manual") § 3.2.

[17] *See* footnote 10, *supra.*

[18] NYISO-prepared documents for the NYC PPTN are located and available at the following link under "NYC Offshore Wind PPTN" contained within the "Public Policy Documents" folder on the NYISO's Planning Studies website, which can be accessed at https://www.nyiso.com/cspp.

III. Project Submission Requirements

General Requirements

Pursuant to Section 31.4.3 of the OATT, the NYISO hereby solicits Public Policy Transmission Projects and Other Public Policy Projects to address the NYC PPTN. Developers, including Transmission Owners and Other Developers, must provide project information in accordance with Section 31.4.5 of the OATT and Sections 3.3, 3.4.2, 3.4.3 of the PPTPP Manual, as well as Attachments B and C of the PPTPP Manual.[19] Specifically, a Developer proposing a Public Policy Transmission Project or an Other Public Policy Project must submit the project information required in Attachment B of the PPTPP Manual, including the additional information requested by the NYISO specific to the NYC PPTN.[20] A Developer proposing a Public Policy Transmission Project must, in addition to submitting Attachment B, submit the project information required in Attachment C of the PPTPP Manual for the NYISO's project evaluation and selection,[21] as well as the additional information required by the Order as set forth in the attached "Sufficiency Criteria, Evaluation Criteria, Project Submittal Requirements, and Additional Information" document. If a Developer submits Confidential Information as part of its project information, the Developer shall submit redacted and unredacted versions of the project information pursuant to Section 31.4.15.4 of the OATT.[22] Project information required in Attachment C of the PPTPP Manual must not contain Confidential Information.

Developers should compile and submit project proposals in an organized and complete manner. The NYISO will consider the quality of project proposals during the evaluation of projects with an emphasis on consistency, clarity, and completeness.

Please note that once a Developer submits a Public Policy Transmission Project to the NYISO for consideration, the design of the proposed facilities (*i.e.*, new transmission facilities or Public Policy Transmission Upgrades proposed to satisfy the Public Policy Transmission Need) cannot be modified.

A Developer must submit its proposed solution to the NYISO in the manner described below by 11:59 pm EDT on June 3, 2024 in order to be considered in the NYISO's Public Policy Transmission Planning Process for the NYC PPTN.

[19] NYISO Public Policy Transmission Planning Process Manual, *available at* https://www.nyiso.com/documents/20142/2924447/M-36_Public%20Policy%20Manual_v1_0_Final.pdf/.

[20] Attachment B to the PPTPP Manual, entitled "Information for a Proposed Solution to a Public Policy Transmission Need," is posted at: https://www.nyiso.com/manuals-tech-bulletins-user-guides. Please note that Attachment B was updated on April 2, 2024.

[21] Attachment C to the PPTPP Manual entitled "Data Submission for Public Policy Projects" is posted at: https://www.nyiso.com/manuals-tech-bulletins-user-guides. Please note that Attachment C was updated on April 2, 2024.

[22] *See id.* at § 31.4.4.3.3.

Specific only to a Public Policy Transmission Project, a Developer must also include with its submission (also by 11:59 pm EDT on June 3, 2024):

(1) an executed Study Agreement for Evaluation of Public Policy Transmission Projects, which is contained in Appendix I of Section 31.12 of the OATT and provided as a fillable form as Attachment II to this letter,[23]

(2) a non-refundable application fee of $10,000, and

(3) a study deposit of $100,000.[24]

Please contact NYISO Accounts Receivable (NYISOFinancePlanningStudies@nyiso.com) regarding submission of the application fee and study deposit.

Developers must send their proposed solutions electronically to publicpolicyplanningmailbox@nyiso.com, including in the subject line, "NYC PPTN Project Proposal." Due to file size restrictions, email attachments should not exceed 60 MB for any single email. Project proposal attachments exceeding the email size limit must be uploaded to a location designated by the NYISO, and the Developer must include the list of files uploaded to the location in the email. The link to access the location for the uploading of files can be requested in advance by sending an email to stakeholder_services@nyiso.com by May 29, 2024 with the subject line "NYC PPTN Project Proposal" and the body of the email indicating the name of Developer and a list of individuals' names and email addresses who will upload the files.

Interconnection Requirements

The Developer of a Public Policy Transmission Project must also demonstrate to the NYISO, simultaneous with its submission of its proposed project, that it has also submitted a Transmission Interconnection Application that contains the same project information submitted for its Public Policy Transmission Project. For the avoidance of any doubt, the "same" project information means that the transmission facilities that are identified as part of the project and necessary to address the NYC PPTN in its submittal in the Public Policy Transmission Planning Process must be identical to the transmission facilities in the Transmission Interconnection Application with identical electrical characteristics, modeling information, and contingency information. If a Developer includes a transmission facility with its proposed Public Policy Transmission Project that is identified by the Developer as potential Network Upgrade Facilities ("NUF") required for the reliable interconnection of the project, the Developer must not include that facility in the Transmission Interconnection Application as part of the "Transmission Project," as defined under Attachment P to the OATT. Facilities that the Developer identifies as potential NUFs required to reliably interconnect the project are subject to change, as the NUFs for the project will be ultimately identified by the NYISO through the Transmission Interconnection Procedures.

[23] OATT § 31.4.4.4; PPTPP Manual § 3.4.2.
[24] OATT § 31.4.4.4.

Please note that references to the interconnection process in this letter are focused on the Transmission Interconnection Procedures.[25] Additional information on the coordination of the Public Policy Transmission Planning Process and the NYISO's interconnection processes is contained in Section 3.4.4 and Attachment C of the PPTPP Manual.

Voluntary Cost Caps

For a Public Policy Transmission Project, a Developer may voluntarily submit with its project information a Cost Cap for its proposed project that covers its Included Capital Costs, as defined in Section 31.4.5.1.8.1 of the OATT, but not its Excluded Capital Costs, as defined in Section 31.4.5.1.8.2.[26] Such Cost Cap for a proposed Public Policy Transmission Project may be in the form of a hard Cost Cap or a soft Cost Cap as described in Sections 31.4.5.1.8.3 and 31.4.5.1.8.4 of the OATT. The NYISO's consideration of any Cost Cap submitted by a Developer will be based on the quantitative and qualitative considerations in Sections 31.4.8.1 and 31.4.8.2 of the OATT. The NYISO's consideration of Excluded Capital Costs and/or costs of a proposal that does not contain a voluntary Cost Cap in its evaluation and selection will rely on the cost estimates determined by its independent consultant.

Alternative Proposals

A Developer must submit a separate application for each distinct Public Policy Transmission Project. The only permitted alternatives within a proposed Public Policy Transmission Project are routing alternatives as provided in Section 31.4.5.1.3 of the OATT. Any other alternative must be submitted as a separate Public Policy Transmission Project.[27]

IV. Developer Qualification for Proposed Transmission Projects

A Developer proposing a Public Policy Transmission Project must be qualified under the provisions of Attachment Y. **A Developer that is not yet qualified to submit transmission projects but intends to respond to this solicitation, must submit a Developer Qualification Form on or before May 4, 2024**.[28] Please note that this date is before submissions for proposed Public Policy Transmission Projects are due to the NYISO. Developers intending to participate are strongly encouraged to submit qualification applications as soon as they are ready but no later than this date. Additional information can be found on the NYISO's website.[29]

[25] *Id.* at § 31.4.4.3.4. In most cases for the NYC PPTN, Developers of a Public Policy Transmission Project will need to submit a Transmission Interconnection Application for their proposals. For Developers considering an interconnection process other than the Transmission Interconnection Procedures for its Public Policy Transmission Project, they should refer to the NYISO's initiative to comply with Order No. 2023 and fully understand the Cluster Study Process and the transition from the Large Facility Interconnection Procedures under Attachments S and X to the Standard Interconnection Procedures under Attachment HH that will be requested to be effective on April 4, 2024. *See generally*, Interconnection Order No. 2023 Compliance Plan and Tariff Review Presentation (March 1, 2024), *available at* https://www.nyiso.com/documents/20142/43295731/02%20Order%20No.%202023%20Compliance%20Plan%20and%20Tariff%20Revisions_IITF_20240301.pdf/.

[26] *See* OATT § 31.4.5.1.8.

[27] *Id.* at § 31.4.4.3.2.

[28] *Id.* at § 31.4.4.3.7; *see also id.* at §§ 31.4.4.1, 31.4.4.3.

[29] The primer on the Developer qualification process may be obtained at the following link: https://www.nyiso.com/documents/20142/1395552/Developer-Qualification-Process.pdf/.

Additionally, the Developer Qualification Form can be found in Attachment A of the NYISO's Reliability Planning Process Manual, as well as accessed through Attachment A of the PPTPP Manual.[30] A Developer that has been qualified has the continuing obligation to (a) inform the NYISO within 30 days of any material change not previously reported to the information that it provided in support of its qualifications and (b) submit to the NYISO each year its most recent audited annual financial statement when available.[31] Additional details on the application of the qualification requirements to Developers of proposed transmission projects are contained in Attachment G of the Reliability Planning Process Manual.[32] All submissions of Developer Qualification Forms and updates must be submitted to DeveloperQualification@nyiso.com.

V. Project Evaluation and Selection

The NYISO staff will evaluate the proposed Public Policy Transmission Projects using metrics as described in the NYISO's tariff, as well as the criteria prescribed by the PSC, to identify the more efficient or cost-effective solution to satisfy the NYC PPTN. The process for the evaluation of proposed Public Policy Transmission Projects is detailed in Section 31.4.8 of the OATT and described in the PPTPP Manual. The attached "Sufficiency Criteria, Evaluation Criteria, Project Submittal Requirements, and Additional Information" document lists the criteria that the NYISO will consider to identify the more efficient or cost-effective solution. The evaluation may also include scenarios to evaluate the proposed Public Policy Transmission Projects impact on the NYISO's wholesale electricity markets and how each proposal could facilitate achievement of the Public Policy Requirement—*i.e.*, the CLCPA.

Questions about the submittal of project information or about the Public Policy Transmission Planning Process should be addressed to stakeholder_services@nyiso.com with the subject line "NYC PPTN."

Very truly yours,

/s/ Zachary G. Smith

Zachary G. Smith
Senior Vice President
System & Resource Planning

Attachment I
Attachment II

cc: Robert Rosenthal, General Counsel, State of New York Department of Public Service

[30] The Developer qualification form may be obtained at the following link: https://www.nyiso.com/documents/20142/2924881/M-26_RPP%20Manual_Att%20A_Final.pdf/.

[31] *See* OATT § 31.4.4.1.2.

[32] Attachment G of the Reliability Planning Process Manual is available at the following link: https://www.nyiso.com/documents/20142/2924881/M-26_RPP%20Manual_Att%20G_v2016-04-01_Final.pdf/.

New York ISO
Independent System Operator

Attachment I

Sufficiency Criteria, Evaluation Criteria, Project Submittal Requirements, and Additional Information

New York City Offshore Wind Public Policy Transmission Need

Sufficiency Criteria, Evaluation Criteria,
Project Submittal Requirements, and Additional Information

Sufficiency Criteria (Minimum Criteria)

In order to address the New York City Offshore Wind Public Policy Transmission Need ("NYC PPTN") as identified by the New York State Public Commission ("PSC"), a proposed Public Policy Transmission Project or Other Public Policy Project shall meet the following minimum sufficiency criteria:

- Accommodate the full output of at least 4,770 MW of incremental offshore wind generation injected into New York City (Zone J), under applicable reliability standards, without reducing the overall output of other renewable resources interconnected in Zones J and K;
- Consist of complete end-to-end proposals comprised of both offshore and onshore components to enable power injection into Zone J. The components should include:
    - One or more offshore interconnection point(s),
    - Offshore transmission (i.e., submarine cables),
    - Sites for cable landing points
    - Onshore transmission path(s) (i.e., terrestrial cables) from cable landing points to points of interconnection (POIs) in Zone J, including sites for converter stations, if necessary, and
    - Necessary improvements to and/or expansion of the existing onshore transmission system;
- Include plans for how offshore wind generation would interconnect to the end-to-end transmission proposal at the offshore interconnection points. Examples may include, but are not limited to, individual standalone DC connectors, each for a single offshore wind project; or an offshore substation for HVDC cable(s) and offshore wind project export line(s); and
- Demonstrate plans to complete all permitting and construction activities necessary to achieve an in-service date no later than January 1, 2033.

In reviewing the minimum sufficiency criteria, Developers should be mindful of three documents that DPS filed in the PSC docket to address questions on the requirements contained in the Order on September 7, 2023, January 17, 2024, and on February 14, 2024.

Additionally, the DPS, in a letter to the NYISO dated February 14, 2024, provided further direction to the NYISO in preparing the Viability and Sufficiency Assessment (VSA) baseline case.

Developers shall refer to the Developer Technical Guidance Document made available by the NYISO to CEII approved requestors when designing proposed solutions to address the NYC PPTN.

Evaluation and Selection Criteria for a Public Policy Transmission Project

For the purposes of the evaluation and selection of the more efficient or cost-effective Public Policy Transmission Project to address the NYC PPTN, the following criteria will be applied:

- In accordance with Section 31.4.8.1 of its OATT, the NYISO will consider the following criteria and metrics: capital cost estimate, voluntary Cost Cap, cost per MW ratio, expandability, operability, performance, property rights and routing, potential construction delays, and any criteria specified by the Climate Leadership and Community Protection Act (CLCPA).
- The following additional evaluation criteria were provided by the PSC in the Order:
    - Scenarios representing up to 8,000 MW of incremental offshore wind generation injected into New York City will be evaluated in the performance of the proposed solutions with respect to expandability, renewable energy delivery,
    - Minimize, to the extent possible, the use of AC submarine cables in constrained areas,
    - Demonstrate that they do not preclude or foreclose on the ability to expand and/or integrate into a future offshore transmission network,
    - No requirement to relieve bulk export constraints on the interface from Zone J to the rest of the New York Control Area during light load conditions,
    - Optimize the use of intended corridors to achieve the intended level of offshore wind integration and account for the findings of NYSERDA's Cable Corridor Assessment,
    - Consider potential interference and/or synergy with the Long Island Offshore Wind Export PPTN, and
    - Extent to which the Developer has the real property rights to implement its proposed Public Policy Transmission Project; and

- Compliance with the twelve design principles contained in Appendix B to the Order to optimize routing of multiple offshore wind cables (a) in the marine environment and (b) at landfalls and over land.

- Additional considerations/assumptions that were presented and discussed with stakeholders and interested parties in evaluating and selecting the more efficient or cost-effective solution:
  - Transmission constraints excluded from the sufficiency assessment (e.g., criteria exceedances identified in the VSA baseline case) may be considered in the evaluation of project proposals to identify the more efficient or cost-effective solution;
  - Scenarios with the following conditions may be considered in the evaluation of project proposals to identify the more efficient or cost-effective solution, such as:
    - Transmission constraints resulting from dispatch of other renewable resources up to their full output in Zones J and K,
    - Inclusion of offshore wind generators that receive NYSERDA awards for Offshore Renewable Energy Certificates that are not already included in the VSA baseline case, and/or
    - Flow of 311 MW on Linden VFT into Zone J;
- Criteria that will be excluded from the sufficiency assessment will be valued in the operability metric and considered in other evaluation metrics to identify the more efficient or cost-effective solution, such as:
    - Ability of a proposed transmission project to enable phase angle regulators ("PARs") to maintain a pre-contingency loading to 75% of its applicable pre-contingency rating (Normal rating) within Zone J, on a Zone J tie line (except for A-line PAR and 300 MW flow scheduled flow over lines 901 and 903 into Zone J), or for any PAR proposed as part of a proposed solution to the NYC PPTN,
    - Ability to inject offshore wind generation with post-contingency loading of the underground cables limited to LTE rating without use of the NYSRC reliability rule allowing for loading to STE rating post-contingency,
    - Ability to inject offshore wind generation without reliance on energy storage to mitigate violations,
    - Ability to inject offshore wind generation with gas turbine units that are still in service at full dispatch, and

  - The quality of project proposals based on its consistency, clarity, completeness, and organization; and

- Developers should consider the guidelines outlined in the Developer Technical Guidance Document made available by the NYISO to CEII approved requestors when designing proposed solutions.

Project Submission Requirements

- Developers should ensure the following while submitting project proposals:
  - Consistency in data and description across different documents,
  - Quality of documents conveying requested information,
  - Sharing of information in the requested format, and
  - Clarity of instructions to interpret data (e.g., calculation sheets, manufacturer's sheets, etc.).
- Developers must submit project models and data in the format requested by the NYISO in Attachments B and C of the PPTPP Manual, as well as the additional information requested by NYISO specific to NYC PPTN under Question 13 of Attachment B of the PPTPP Manual.
- When submitting Confidential Information, as defined in Section 31.4.15 of the OATT, the Developer must submit redacted and un-redacted versions of this project information pursuant to Section 31.4.15.4 of the OATT. Developers proposing a Public Policy Transmission Project shall not submit any Confidential Information in Attachment C of the PPTPP Manual.
- Proposed Public Policy Transmission Projects must include the following in Attachment C.8 of the PPTPP Manual:
  - Clear and succinct demonstration of how the proposed solution meets the viability and sufficiency criteria,
  - Clear and succinct highlights of the specific characteristics and benefits of the proposed solution under the evaluation criteria, as prescribed by the OATT, the PSC Order, and this document,
  - Documentation demonstrating compliance with each of the siting principles outlined in Appendix B of the Order, including an explanation of why and how any necessary deviation, if any, from a siting principle will affect the cost, the schedule, or the permitting risks for the proposed solution,
  - Demonstration of how the solution integrates offshore wind generation by 2035, including any in-service date phasing, above the minimum requirement

of incremental 4,770 MW, if any, up to 8,000 MW, to meet the CLCPA target to integrate 9,000 MW of offshore wind by 2035, and

- Clear and succinct demonstration of any additional benefits and special characteristics of the proposed solution not already addressed under the above.

- Developers must identify which components of their Public Policy Transmission Projects that are necessary to satisfy the NYC PPTN are new facilities or Public Policy Transmission Upgrades[1] as more fully described in Attachments B and C of the PPTPP Manual. Developers, at their option, may identify potential interconnection facilities (also referred to as "preliminary interconnection facilities"), such as Network Upgrade Facilities, that in the Developers' estimation will be identified through the interconnection studies.[2] Such potential Network Upgrade Facilities should be separately listed and not commingled with the components of the project (e.g., new facilities or Public Policy Transmission Upgrades) that are necessary to satisfy the NYC PPTN. In accordance with the OATT, the NYISO will review the classification of Project components and, if necessary, ask the Developer for additional information, as necessary. Facilities that the Developer identifies as potential Network Upgrade Facilities required to reliably interconnect the project are subject to change, as the Network Upgrade Facilities for the project will be ultimately identified by the NYISO through the Transmission Interconnection Procedures.

PPTN-Specific Project Information

- For the purpose of determining whether a proposed solution satisfies the NYC PPTN (i.e., sufficiency), the following constraints do not need to be resolved:
  - Facilities operated at a voltage below 100 kV, and
  - Radial facilities that can be excluded for voltage and thermal violations monitoring for the post-contingency conditions as per NPCC and NYSRC performance requirements for the Bulk Power System. NERC Bulk Electric System exclusions may also apply.
- Non-compliance to planning criteria (thermal and voltage) observed in the VSA baseline case shall not increase or worsen after addition of proposed project and associated offshore wind generation under various assessments (N-0, N-1, N-1-0, N-1-1).

[1] OATT §§ 31 (definition of "Public Policy Transmission Upgrade"), 31.6.4.
[2] OATT § 22.1.

Baseline Study Cases

The VSA baseline case for the NYC PPTN is based on the NYISO 2023 FERC 715 system representation filing with modifications in accordance with NYISO's tariffs and procedures and as required by the Order identifying the NYC PPTN.

The following summarize the major modifications:

- The following offshore wind generation modeled:
    - ~816 MW connected to Zone J (New York City) 816 MW @ Gowanus 345 kV,
    - ~3,000 MW connected to Zone K (Long Island): 139 MW @ East Hampton 69 kV, 880 MW @ Holbrook 138 kV, 1,260 MW @ 138kV lines connecting to Barrett 138 kV, 800 MW @ Ruland Rd 138 kV.

- The following major transmission projects are modeled:
    - T051 Propel NY Alt 5 solution to Long Island Offshore Wind Export PPTN,
    - Champlain-Hudson Power Express (~600 MW injection in VSA baseline case),
    - Clean Path NY (0 MW injection in VSA baseline case),
    - Brooklyn Clean Energy Hub, and
    - Eastern Queens substation.

Please note that the above assumptions are specific to the VSA baseline case.

In addition to the VSA baseline case, the NYISO will utilize a Light Load case with a 2033 system representation, along with updates consistent with NYISO tariffs and procedures, to assess transmission solutions' performance in the evaluation and selection of the more efficient or cost-effective solution. Other scenarios and assumptions including scenarios representing achievement of the CLCPA may also be utilized in the evaluation and selection of the more efficient or cost-effective solution.

The study cases, baseline case study results, and the Developer Technical Guidance Document are available, subject to a Critical Energy Infrastructure Information (CEII) request and approval: https://nyiso.tfaforms.net/187

References - Documents

- PSC Order
- Developer Technical Guidance Document (available upon CEII request)
- DPS/NYISO PSC Order Q&A Document (Sep 2023)
- DPS PSC Order Q&A Document (Jan 2024)
- DPS PSC Order Q&A Document (Feb 2024)
- DPS NYC PPTN Letter to NYISO (Feb 2024)
- NYISO FAQs (Under Public Policy Documents/NYC Offshore Wind PPTN)
- NYSERDA Offshore Wind Cable Corridor Constraints Assessment
- Agency Working Group Technical Conference Presentation
- Con Edison Technical Conference Presentation
- Con Edison FAQs
- Con Edison Updates Dec 7, 2023

References – Meeting Material

- July 25, 2023 NYC PPTN Update
- August 22, 2023 NYC PPTN Update
- September 21, 2023 NYC PPTN Update
- October 2, 2023 NYC PPTN Update
- October 24, 2023 NYC PPTN Update
- November 2, 2023 NYC PPTN Update
- November 6, 2023 NYISO Technical Conference
- November 21, 2023 NYC PPTN Update
- December 7, 2023 NYISO Technical Conference
- December 19, 2023 PPTPP Manual Updates
- January 23, 2024 NYC PPTN Update
- February 6, 2024 NYC PPTN Update
- February 22, 2024 NYC PPTN Update

- March 8, 2024 NYC PPTN Update
- March 21 2024 NYC PPTN Update

New York ISO
Independent System Operator

Attachment II

Study Agreement for Evaluation of Public Policy Transmission Projects

STUDY AGREEMENT FOR
EVALUATION OF PUBLIC POLICY TRANSMISSION PROJECTS

THIS AGREEMENT is made and entered into this ____ day of _____, 2021 by and between _____, a _____ organized and existing under the laws of the State of _____("Developer"), and the New York Independent System Operator, Inc., a not-for-profit corporation organized and existing under the laws of the State of New York ("NYISO"). Developer and NYISO each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Developer is proposing to develop a Public Policy Transmission Project to satisfy one or more identified Public Policy Transmission Needs ("Transmission Project");

WHEREAS, pursuant to Sections 31.4.3.1, 31.4.4.3, and 31.4.4.4 of Attachment Y to the ISO OATT, the NYISO has requested that all entities interested in proposing a Transmission Project submit specific solutions to the Public Policy Transmission Need, including: (i) submitting their project information and an application fee for purposes of being evaluated in the NYISO's Public Policy Transmission Planning Process, and (ii) executing this Agreement and submitting a study deposit for purposes of the NYISO's evaluation and selection of the more efficient or cost-effective transmission solution to the identified Public Policy Transmission Need(s);

WHEREAS, Developer has requested the NYISO to evaluate its Transmission Project for the purpose of selecting the more efficient or cost-effective transmission solution to the identified Public Policy Transmission Need(s);

WHEREAS, pursuant to Sections 31.4.3.1, 31.4.4.3, and 31.4.4.4 of Attachment Y to the ISO OATT, Developer will submit, together with the execution of this Agreement, its project information, application fee, and study deposit for the purpose of the NYISO evaluating its Transmission Project.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified but not otherwise defined herein shall have the meanings indicated in Section 31.1.1 of Attachment Y to the ISO OATT, or if not defined therein, in the ISO OATT.

2.0 Developer elects, and the NYISO shall cause to be performed, an evaluation of the Transmission Project in accordance with Sections 31.4.7, 31.4.8, 31.4.9, 31.4.10, and 31.4.11 of Attachment Y to the ISO OATT, along with any required additional evaluation

or re-evaluation of the Transmission Project, for the purpose of the NYISO's selection of the more efficient or cost-effective transmission solution to satisfy the identified Public Policy Transmission Need(s) ("Evaluation"). The terms of Sections 31.4.7, 31.4.8, 31.4.9, 31.4.10, and 31.4.11 of Attachment Y to the ISO OATT, as applicable, are hereby incorporated by reference herein. The NYISO will not commence its Evaluation of the Transmission Project prior to determining that: (i) Developer's Transmission Project is viable and sufficient in accordance with Section 31.4.6 of Attachment Y to the ISO OATT, and (ii) Developer has provided to the NYISO the required notification to proceed with the Evaluation of the Transmission Project in accordance with Section 31.4.6.6 of Attachment Y to the ISO OATT.

3.0 Upon the execution of this Agreement, Developer shall provide the NYISO with the project information for its Transmission Project in accordance with Section 31.4.4.3 of Attachment Y to the ISO OATT. Developer shall provide the project information required under Section 31.4.5.1 of Attachment Y to the ISO OATT.

4.0 Upon the execution of this Agreement, Developer shall also provide the NYISO with a deposit of $100,000 in accordance with Section 31.4.4.4 of Attachment Y to the ISO OATT to secure Developer's payment of the NYISO's expenses incurred in performing the Evaluation. The NYISO will not commence its Evaluation of the Transmission Project prior to its receipt of Developer's study deposit. The NYISO shall invoice, and Developer shall pay to the NYISO, the actual costs of the Evaluation in accordance with Section 31.4.4.4 of Attachment Y to the ISO OATT. Upon settlement of the final invoice, the NYISO will return to Developer any remaining portion of the study deposit, including any accrued interest, in accordance with Section 31.4.4.4 of Attachment Y to the ISO OATT.

5.0 The NYISO will use the project information provided by Developer as described in Section 3.0 above as an input for its Evaluation; *provided, however*, that pursuant to Section 31.4.8 of Attachment Y to the ISO OATT, the ISO may engage an independent subcontractor consultant to review the reasonableness and comprehensiveness of the project information provided by Developer and may rely on the independent subcontractor consultant's analysis of the project information in performing its Evaluation. The NYISO reserves the right to request additional project information from Developer as may become necessary in accordance with Section 31.4.4.3.5 of Attachment Y to the ISO OATT, and Developer shall submit such additional information within 15 days of the NYISO's request as required under Section 31.4.4.3.8 of Attachment Y to the ISO OATT. Developer shall meet with the NYISO, as the NYISO deems necessary, to discuss Developer's project information.

6.0 The scope of the Evaluation shall be subject to the study purposes and criteria set forth in Attachment Y to the ISO OATT and to the assumptions set forth in Attachment A to this Agreement.

7.0 As part of the NYISO's Evaluation of the Transmission Project and prior to identifying the more efficient or cost-effective transmission solution to meet the Public Policy Transmission Need(s), the NYISO will provide Developer with a summary of its findings regarding the project information submitted by Developer and will meet with Developer to discuss its findings and to address any questions regarding the project information. After completing the required analysis of all of the proposed regulated transmission solutions and identifying the more efficient or cost-effective transmission solution, the NYISO will provide all stakeholders with the results of its analysis, including which regulated transmission solution has been identified as the more efficient or cost-effective transmission solution to the Public Policy Transmission Need(s), in the Public Policy Transmission Planning Report pursuant to Section 31.4.11 of Attachment Y to the ISO OATT.

8.0 Miscellaneous.

8.1 Accuracy of Information. Except as Developer may otherwise specify in writing when it provides information to the NYISO under this Agreement, Developer represents and warrants that to the best of its knowledge and belief the information it has provided or subsequently provides to the NYISO is and shall be accurate and complete as of the date the information is provided. Developer shall promptly provide the NYISO with any additional information needed to update information previously provided.

8.2 Disclaimer of Warranty. In performing the Evaluation, the NYISO and any subcontractor consultants engaged by the NYISO will have to rely on information provided by Developer, and possibly by third parties, and may not have control over the accuracy of such information. Accordingly, neither the NYISO nor any subcontractor consultant engaged by the NYISO makes any warranties, express or implied, whether arising by operation of law, course of performance or dealing, custom, usage in the trade or profession, or otherwise, including without limitation implied warranties of merchantability and fitness for a particular purpose, with regard to the accuracy, content, or conclusions of the Evaluation performed pursuant to this Agreement and the ISO OATT. Developer acknowledges that it has not relied on any representations or warranties by the NYISO or its subcontractor consultants not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

8.3 Limitation of Liability. The NYISO or any subcontractor consultants engaged by the NYISO shall not be liable for direct damages, including money damages or other compensation, for actions or omissions by the

NYISO or a subcontractor consultant in performing its obligations under this Agreement, except to the extent such act or omission by the NYISO or a subcontractor consultant is found to result from its gross negligence or willful misconduct. In no event shall either Party or its subcontractor consultants be liable for indirect, special, incidental, punitive, or consequential damages of any kind including loss of profits, arising under or in connection with this Agreement and the ISO OATT or any reliance on the Evaluation by any Party or third parties, even if one or more of the Parties or its subcontractor consultants have been advised of the possibility of such damages. Nor shall either Party or its subcontractor consultants be liable for any delay in delivery or for the non-performance or delay in performance of its obligations under this Agreement.

8.4 Third-Party Beneficiaries. Without limitation of Sections 8.2 and 8.3 of this Agreement, Developer further agrees that subcontractor consultants hired by NYISO to conduct or review, or to assist in the conducting or reviewing, the Evaluation of the Transmission Project shall be deemed third party beneficiaries of these Sections 8.2 and 8.3.

8.5 Term and Termination. This Agreement shall be effective from the date hereof and, unless earlier terminated in accordance with this Section 8.5, shall continue in effect until completion of the Evaluation, which shall be the later of: (i) the date on which the NYISO Board of Directors' approval of the Public Policy Transmission Planning Process report for the planning cycle is final and not the subject of dispute resolution or a challenge before a court or regulatory body, and (ii) the date on which the New York State Public Service Commission issues the Article VII certification for a regulated transmission solution that satisfies the identified Public Policy Transmission Need(s). Developer or NYISO may end the Evaluation and terminate this Agreement upon: (i) the withdrawal by Developer of its Transmission Project, including its failure to provide the required notification to proceed under Section 31.4.6.6 of Attachment Y to the ISO OATT; (ii) the rejection by the NYISO of the Transmission Project from further consideration during the planning cycle in accordance with the ISO OATT; or (iii) any changes by the New York State Public Service Commission to the identified Public Policy Transmission Need(s), including withdrawal of the Public Policy Transmission Need(s), that eliminate the need for the Transmission Project.

8.6 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to any choice of laws provisions.

8.7 Severability. In the event that any part of this Agreement is deemed as a matter of law to be unenforceable or null and void, such unenforceable or void part shall be deemed severable from this Agreement and the Agreement shall continue in full force and effect as if each part was not contained herein.

8.8 Counterparts. This Agreement may be executed in counterparts, and each counterpart shall have the same force and effect as the original instrument. A signed copy of this Agreement delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

8.9 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing signed by the Parties hereto.

8.10 Survival. All warranties, limitations of liability and confidentiality provisions provided herein and the payment obligations provided under Section 4.0 shall survive the expiration or termination of this Agreement.

8.11 Independent Contractor. NYISO shall at all times be deemed to be an independent contractor for purposes of this Agreement and none of its employees or the employees of its subcontractors shall be considered to be employees of Developer as a result of this Agreement.

8.12 No Implied Waivers. The failure of a Party to insist upon or enforce strict performance of any of the provisions of this Agreement shall not be construed as a waiver or relinquishment to any extent of such party's right to insist or rely on any such provision, rights and remedies in that or any other instances; rather, the same shall be and remain in full force and effect.

8.13 Successors and Assigns. This Agreement, and each and every term and condition hereof, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns.

8.14 Confidentiality. NYISO shall maintain the project information submitted by Developer under this Agreement in accordance with the requirements

set forth in Sections 31.4.4.3.10, 31.4.4.3.11, and 31.4.15 of Attachment Y to the ISO OATT.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents and to be effective from the day and year first above written.

NYISO

By: _____

Name:_____

Title: _____

Date: _____

_____

(Developer's Name)

By: _____

Name: _____

Title: _____

Date: _____

Exhibit D

New York ISO
Independent System Operator

Public Policy Transmission Planning Process Manual Attachments

Attachment C

Data Submission for Public Policy Transmission Projects

Issued: 04/02/2024

New York ISO

Issued: April 2, 2024

Prepared by: System & Resource Planning

New York Independent System Operator
10 Krey Boulevard
Rensselaer, NY 12144
(518) 356-6060
www.nyiso.com

Disclaimer: The information contained within this manual attachment, along with other NYISO manual attachments, is intended to be used for information purposes only, and is subject to change. The NYISO is not responsible for the user's reliance on these publications, or for any erroneous or misleading material.

(Completed proposal should be sent to PublicPolicyPlanningMailbox@nyiso.com)

[Insert Title of Project]

(Title should be short and formatted as follows:)

Submitted in response to NYISO Solicitation for (insert Public Policy Transmission Need being addressed)

Date: [xx/xx/xx] *(date submitted to NYISO)*

Proposal Made By: [name of Developer/company]
[street address of company]
[city, state, zip]

(NOTE: *Developers that are jointly proposing a solution must each be specifically named above and qualified under OATT Section 31.4.4.3.6 or seeking qualification in accordance with OATT Section 31.4.4.3.7*)

Contact Person: [name, title]
[phone #] Office [phone #] Cell
[email address]

Technical Contacts

Project Manager: [name, office phone, cell phone, email]
(person responsible for schedule and budget tracking)

Project Engineer: [name, office phone, cell phone, email]
(*person responsible for technical information*)

Project Description and Location

[Insert information within bracketed areas and remove brackets]

[X]	HVAC Transmission Project	**[X]**	Substation Project
[X]	HVDC Transmission Project	**[X]**	FACTS
[X]	Underground Transmission Project	**[X]**	Underwater/Sea Project

(Transmission project description format, delete if not applicable)

[xx kV] – [Substation to Substation];[xx miles]*(lineal length of project)***, [Type of project]** *(Overhead, Underground, HVDC, ROW for new Transmission Line, Rebuild, Thermal Up-Rate, Relocation, etc.)*;

Describe what will be technically involved in the project such as type of project (OH,UG,UW), conductor type, construction (wood, steel, etc.), technology, substation modifications, etc.

(Substation project description format, delete if not applicable)

[xx kV] – [Substation Name]; [Project Location] ***(Name of closest city, Township, County, State, ZIP)***, [Type of project] ***(New Substation, Transformer Replacement or kV Change, Conversion to Ring Bus, Phase Shifter, FACTS, SVC, Reactive Compensation, etc.)***;

Describe what will be technically involved in the project, such as construction, technology, substation modifications, etc.

Project Zone(s): *(NYISO regional area location)*

Project County(ies):

Project State (if connecting outside NY):

One-Line Diagrams:

Briefly discuss any changes to the existing one-line diagram as a result of this project.

NOTE: In describing the "project," only include new transmission facilities or Public Policy Transmission Upgrades, as defined by Section 31.1 of the OATT, that are necessary to achieve the Public Policy Transmission Need. For the purposes of Attachment Y, a Public Policy Transmission Upgrade includes an improvement to, addition to, or replacement of a part of, an existing facility and shall not mean an entirely new transmission facility.

Edit the sentences below, as appropriate.

Pursuant to Section 31.4.5 of the OATT, this project consists of [ ].

- The following facilities have been identified by the Developer as new transmission facilities: [ ].

- The following facilities have been identified by the Developer as a Public Policy Transmission Upgrade: [ ].

Any preliminary identification of interconnection facilities (e.g., Network Upgrade Facilities) that are needed to reliably interconnect the proposed transmission project to the New York State Transmission System, or Distribution System, if applicable (e.g., addition of breakers or bays in an existing substation) are not considered part of the project and should be separately identified.

Potential interconnection facilities for transmission solutions will generally include Network Upgrade Facilities but could alternatively include Connecting Transmission Owner Attachment Facilities, Developer Attachment Facilities, System Upgrade Facilities, and/or System Deliverability Upgrades if the project qualifies and is being studied under another NYISO interconnection process. In listing them below, clearly

indicate whether they are potential interconnection facilities based upon the estimation of the Developer or whether the NYISO identified them through a completed NYISO-conducted interconnection study for the same transmission project (include the specific queue number and study that identified the interconnection facilities).

Pursuant to Section 31.4.5 of the OATT, the following facilities have been identified by the Developer as either potential interconnection facilities based upon the estimation of the Developer or NYISO-identified Interconnection Facilities, if already known from a NYISO-conducted interconnection study for the project: [ ].

A simplified system one-line diagram and a system one-line diagram with breaker arrangement depicting the new transmission facilities and Public Policy Transmission Upgrades necessary to address the Public Policy Transmission Need and potential interconnection facilities that may be necessary to reliably interconnect the project to the existing New York State Transmission System, or Distribution System, consistent with the applicable interconnection standard be provided as attachments.

The one-line diagram representation should meet the guidelines and requirements specified by the Transmission Owner to which the project is proposing to connect.

Attachment C.1A: Existing simplified system one-line diagram of the facilities to which the project is proposing to connect

Attachment C.1B: Existing detailed electrical one line diagram of each facility to which the project is proposing to connect.

Attachment C.1C: Proposed simplified system one-line of final configuration

Attachment C.1D: Proposed detailed electrical one line diagram of each facility to which the project is proposing to connect.

Data Requirements:

Refer to NYISO Manual 24 – Reliability Analysis Data Manual for appropriate modeling data requirements, available from the NYISO Web site at the following URL:

https://www.nyiso.com/documents/20142/2924447/rel-anl-data-mnl.pdf/2d42445e-317d-b7e9-24b8-c983ae6518ec

Attachment C.1E: Provide Project model data in the requested format.

Design Criteria

Proposed project design shall meet the [interconnecting TO(s)]design standards and criteria. If no [interconnecting TO(s)] design standards and criteria or applicable local standard exists, then, the applicable industry standard or good utility practice will be used including the New York Transmission Owners Task Force on Tie Line Ratings Final Report 2019. As a minimum, all new facilities should comply with the current National Electric Safety Code.

Attachment C.1F: List all organizations' design standards applicable to specific projects components, which will be used, and any exceptions to Design Criteria, which are being proposed.

Route and Site Information

If Developer has not obtained all necessary property rights to implement the solution, insert the transmission routing study. If a routing study has not been completed, include a description of the plan for determining the routing and siting. Identify crossings of existing electrical facilities, pipelines, state and federal highways and any other possible interference. For underwater routes, identify crossings of existing facilities, such as cables, tunnels, and mooring areas.

Attachment C.2A: Transmission routing study. In addition, provide a summary of the routing study in the requested format.

Attachment C.2B: Map of the line route or corridor for each project component. Identify laydown yard locations. Identify infrastructure crossings for each line route. Provide this information in .pdf and .kmz file formats. Provide a summary of infrastructure crossings for each route in the requested format.

Right-of-Way Requirements

(Information to be provided by Developer)

Multiple ROW width requirements may be necessary depending on the design and construction type and methods.

Attachment C.3A: Details of Right-of-Way calculations including typical cross sections for all proposed lines

Provide a table listing each new and rebuild circuit identifying conductor type and proposed ampacity. Power cable specifications/cutsheets.

Provide Conductor and Cable Ampacity Calcs. Provide an EMF report outlining assumptions and calculations.

Transmission Drawings

Attachment C.3B: The following drawings are generally developed for transmission line projects. Provide drawings, as applicable, available and any additional drawings as necessary:

- Standard structure drawings that will be included or modified with this project,
- Plan and profile drawings,
- Road crossing plans,
- Underwater and water to land transition installation methods,
- Cable trenching,

- Manhole installation details, trenchless construction details illustrating methodology. Include details illustrating construction work areas required for structures, laydown areas, cable pulling, trench and manhole installation.
- Phasing diagram, and
- Foundation details (concrete, embedded, etc.).

Substation Drawings

A substation Plot Plan for the proposed substations and the existing facilities to which the project is proposing to connect should depict the fenced areas, major structures, equipment, control buildings, property lines and access roads. Provide a geographic map with the substation superimposed. Plot Plans should include the proposed routing of transmission lines into the substation, routing of ties between new and existing substations, and any interties within the substation.

The Site Plan should depict the existing and new transmission lines and structures, rights of ways, property lines, regulated wetlands, culverts, ditches, and other existing utilities in the area, to the extent known.

Attachments C.3C: Existing Site Plans and Plot Plan drawings

Attachments C.3D: Proposed Site Plans and Plot Plan drawings

Attachments C.3E: The following drawings are generally developed for substation projects. Provide drawings, as applicable and any additional drawings, as necessary.

- Foundation Plan and Details,
- Conduit Plan and Details,
- Grading Plan,
- General Arrangement,
- Elevation Plan,
- Stormwater runoff plan,
- Relay One Lines,
- Grounding Plan and Details, and
- Schematic Diagrams.

Work Plan:

A description of the overall work plan from start to finish. List items that will be done by in-house staff and list services that will be performed by third-party consultants or contractors.

Below is a list of probable project development and construction activities. Add other activities that the Developer has considered and included.

- *Siting Activities (e.g., Locating line routing and substation site location options)*
- *Environmental Impact Studies (relative to siting options)*
- *Permitting and Regulatory Activities (e.g., Certificate of Environmental Compatibility and Public Need)*
- *Environmental Management & Construction Plan (for Article VII)*
- *Interconnection Studies*
- *Public Outreach plan*
- *Electrical Studies (e.g., Equipment sizing, protection, ground mat design)*
- *Surveying (relative to line and station layouts)*
- *Real Estate Acquisition*
- *Geotechnical Contractor (soil borings, soil resistivity)*
- *Engineering*
- *Site Work*
- *Below Grade (e.g., foundations, grounding, conduit)*
- *Above Grade (e.g., substation structures)*
- *Electrical Construction (e.g., control house, protection, and controls)*
- *Overhead/Underground/Underwater Electric Construction (e.g., current carrying line and substation equipment)*
- *River crossings and/or directional drilling locations*
- *Telco Construction (e.g., communications for protection and remote telemetry)*
- *Other*

Environmental and Permitting Requirements

(Describe the environmental requirements that shall apply to this project. Describe the permitting requirements that are applicable to the project and determine which permits are necessary. Identify any work completed to date. Note any deviations from standard permitting requirements or timelines, and justification of such. The Developer should identify and assess the permitting and siting requirements, as applicable, and why/how they would be met by the applicant, including but not limited to:

Regulatory: (*e.g., NYS Article VII, Part 102, other state's regulations, federal regulations and permits, local regulations and permits, other*)

Environmental: *(e.g., NYSDEC, Adirondack Park Association, USACE, etc.)*

Real Estate: (*e.g., NYS Department of Agriculture and Markets, NYS Historic Preservation, Railroad, FAA, municipalities, etc.)*

Construction: (*e.g., NYSDOT, road closure permits, temporary road crossing permits, waterway, and ocean, etc.)*

Attachment C.4: Project Permitting Plan Summary

Outage Requirements

Description of the anticipated necessary outage requirements for this project and how customers would be supplied or service impacted.

Attachment C.5A: Provide a set of one-line diagrams illustrating the construction sequence and a duration of outage.

Attachment C.5B: Provide a construction schedule in form of Gantt chart that includes the following:

- Length of outages required for each major component (*e.g.*, transformer, transmission line, PAR, main bus, circuit breaker, etc.), and
- Concurrent outages of major components and the duration of their overlap.

Ensure that the information provided in the two attachments is consistent.

Milestone Schedule

Items to be considered (as applicable and available) for milestone schedule include but not limited to:

- *In-service date of the proposed project and specific components of the proposed project,*
- *Outage availability,*
- *Permitting requirements of different federal and state agencies and associated environmental studies and assessment, as applicable,*
- *Construction duration for various activities for each project component,*
- *Deadline for major equipment order, engineering ROW procurement schedule,*
- *Existing facility outage availability, and*
- *Cultural resources, or wetland issues.*

Identify the overall in-service date of the project, as well as earlier in-service dates for new transmission facilities and Public Policy Transmission Upgrades that must be placed in service in a specific sequence for the construction of the project.

Add commentary under the milestone schedule discussion about the scheduling requirements, which need to be completed in order to meet the energization requirement. For example, in the case of wetlands, will the wetlands require winter-only construction or any time of year restrictions? For a reconductoring or rebuild project, can the existing line be taken out-of-service or will the work need to be done on short outages or live line work? For requirements to sequence the project, what components of the project must be put in-service prior to the construction and/or in-service of other components. A unique schedule is to be submitted for each project being proposed.

Attachment C.6 Insert a milestone schedule in Gantt chart format

Risk Register

List any potential risks to the proposed project and potential mitigations.

Attachment C.7 Detailed Risk Register

Project Overview

From a high level, this section should discuss the needs and requirements for the project, the Public Policy Transmission Need that the project proposes to resolve, and how the proposed project will address the need.

Attachment C.8A: Provide results of studies or analysis completed by the Developer that demonstrates that the project addresses the Public Policy Transmission Need.

Attachment C.8B: Identify and describe how the project can meet the viability and sufficiency criteria, evaluation metrics set forth in the OATT, and metrics specified in the PSC order, as applicable.

Examples include but not limited to

- *Viable Technology: Please provide evidence of a commercially viable technology. For any new technology or equipment and systems not currently used in New York State, provide proposed vendors, construction firms, specification and drawing details, and identify projects/systems where it has been implemented.*
- *Project Expandability: Consider and identify future modifications to proposed facilities to increase equipment ratings, staging or phasing of future transmission development, or otherwise benefiting from the proposed facilities for future reliability or congestion relief purposes. Future line terminal positions and/or space for expansion of proposed substation are to be explicitly identified in the substation drawings. Provide a table identifying each specific terminal proposed for future use.*
- *Operability and Performance Impacts: Consider and identify additional flexibility in operating the system, such as dispatch of generation, access to operating reserves or ancillary services, maintenance impacts.*
- *Resiliency: Identify any extraordinary measures proposed to improve the resiliency of the proposed project.*

Provide plan to operate and maintain the assets associated with the project. Describe if the assets will be operated from a new control center or if expansion to an existing control center is required. If a controllable device is included as part of the proposal, describe how the device should be operated to optimize the performance.

Attachment C.9: Operation and Maintenance Plan

Completed By: _____

Engineering Lead/Consultant Printed Name Date

Reviewed By: _____

Project Engineer Printed Name Date

Approved By: _____

[Project Manager or Authorized Rep] Printed Name Date

(If more than one Developer is jointly proposing the Public Policy Transmission Project, each Developer must complete the above signatures. Signatures may be done in multiple counterparts.)

Attachment C.1A: Existing simplified system one-line diagram of facilities to which the project is proposing to connect

Attachment C.1B: Existing detailed electrical one line diagram of each facility to which the project is proposing to connect

Attachment C.1C: Proposed simplified system one-line of final configuration

Attachment C.1D: Proposed detailed electrical one line diagram of each facility to which the project is proposing to connect

Attachment C.1E: Data Matrix (tabularized data) containing detailed electrical description of the project

Attachment C.1F: List all organizations' design standards applicable to specific projects components which will be used and any exceptions to Design Criteria which are being proposed

Attachment C.2A: Transmission Routing Study

Attachment C.2B: Proposed Line Route (presented on a _____ map with minimum scale of _____ and displaying a centerline and corridor width of _____ feet) and other details

Attachment C.3A: Transmission Line Details

Attachment C.3B: Transmission Line Drawings

Attachment C.3C: Existing Site Plan and Plot Plan for each facility to which the project is proposing to connect

Attachment C.3D: Proposed Site Plan and Plot Plan for each facility to which the project is proposing to connect

Attachment C.3E: Substation Drawings

Attachment C.4: Project Permitting Plan Summary

Attachment C.5A: One-line Diagrams for construction sequence

Attachment C.5B: Construction Sequence Schedule in form of Gantt chart

Attachment C.6: Project Milestone Schedule

Attachment C.7: Risk Register

Attachment C.8A: Planning Study Results

Attachment C.8B: Project Overview

Attachment C.9: Operation and Maintenance Plan

Proposed Project Document
Attachment C.1.E
Proposed Project Data Summary

						Impedance (pu)			Summer Ratings (MVA)			Winter Ratings (MVA)			Shunt Line Compensation (pu)			Length (miles)
Type* [AC, DC]	Name [from Substation] - [to Substation] [kV]	PSSE From Bus #	PSSE To Bus #	kV	Ckt No/Id	R	X	B	Normal	LTE	STE	Normal	LTE	STE	B (From Bus)	B (To Bus)	Conductor Type	Total

*** Modeling of lines between proposed and existing substations as zero impedance line should be identified, as applicable.**

Transformers and PARs

						Impedance* (pu)		Summer Ratings (MVA)			Winter Ratings (MVA)			PAR Angle limits	
Type [Transformer, PAR]	Name [from Substation] - [to Substation] [kV]	PSSE From Bus #	PSSE To Bus #	kV	Ckt No/Id	R	X	Normal	LTE	STE	Normal	LTE	STE		

*** Specify impedance on system MVA base. Identify if using a different MVA base.**

Shunts

Type [shunts]	Name [Substation/Line] [kV]	PSSE Bus #	Blocks

Proposed Project Document
Attachment C.2.A
Proposed Transmission Routing Study Summary

			C			
Project facility	A	B	1	2	3	D
Line A (STATION 1-2)						
Line B						

A	Possesses the rights of way necessary to implement the solution
B	Will rely on existing rights of way owned by other parties (identify owner(s) and location(s))
C	Has completed a transmission routing study which:
C.1	Identifies a specific route routing plan with alternatives, and
C.2	Includes a schedule indicating the timing for obtaining siting and permitting, and
C.3	Provides specific attention to sensitive areas (e.g., wetlands, protected areas, etc.)
D	Has a specified plan or approach for determining the routing and acquiring property rights.

	Miles under							Overhead (Miles under)		UG (Miles under)				Miles of line parallel to				Total Line mileage (miles)
Project facility	A.1	A.2	A.3	A.4	A.5	A.6	A.7	B.1	B.2	C.1	C.2	C.3	C.4	D.1	D.2	D.3	D.4	
Line A (STATION 1-2)																		
Line B																		

A.1	Commercial / Industrial / Urban	A.6	Waterway (e.g., river, ocean)	C.2	Existing transmission ROW	D.3	City or village streets
A.2	Residential	A.7	Wetland (NYSDEC/USACE)	C.3	New ROW	D.4	Utilities & utility corridors
A.3	Open Field/Fallow Land	B.1	Existing ROW	C.4	Underwater		
A.4	Agricultural District/Crop Land	B.2	New ROW	D.1	Interstate Highways		
A.5	Forested Land	C.1	Roadway or shoulder	D.2	Rural state, county, or town roads		

Proposed Project Document
Attachment C.2.B
Proposed Transmission Routing Study or Plan

Submarine Route Crossings List			
Project Facility (Route)	Crossing Description (e.g., submarine cable, cable crossing, cable area crossing, channel crossing, pipeline crossing)	Waterbody (if applicable)	Location (e.g., coordinates)
Terrestrial Route Crossings List			
Project Facility (Route)	Crossing Description	Landmark (if applicable)	Location (e.g., coordinates)

Proposed Project Scope Document
Attachment C.4
Project Permitting Plan Summary

Project Facility	Permit/Clearance Agency Name	Type (Federal/State/Local/County)	Purpose	Requirements	Typical Approval Time	Comments	Is this approval time period included in the milestone schedule (Attachment C.6)?

Exhibit E

A

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EMERGENCY/PROPOSED RULE MAKING NO HEARING(S) SCHEDULED

I.D. No. _____
Filing Date: 08/07/2024
Effective Date: _____

PURSUANT TO THE PROVISIONS OF THE State Administrative Procedure Act, NOTICE is hereby given of the following action:

***Proposed Action*:** The Public Service Commission, on [DATE], adopted an order approving, on an emergency basis, the petition of Consolidated Edison Company of New York, Inc. seeking Commission approval of an order authorizing Con Edison to build four additional interconnection points at the Brooklyn Clean Energy Hub for an additional $66 million and authorizing cost recovery above the $810 million cap for those additional interconnection points at the Brooklyn Clean Energy Hub.

***Statutory authority*:** State Administrative Procedure Act, Section 202(6); the Accelerated Renewable Energy Growth and Community Benefit Act, L. 2020, ch. 58, part JJJ, §7(2).

***Finding of necessity for emergency rule*:** Preservation of the general welfare.

***Specific reasons underlying the finding of necessity*:** This Public Service Commission approved the petition of Con Edison because, absent Commission action approving the petition, the costs for the four additional interconnection points will increase from approximately $16.5 million per interconnection to $25-30 million per interconnection (i.e., a potential cost savings of $34 -$54 million for customers). Such approval also allows Con Edison to install the additional interconnection points while building the Brooklyn Clean Energy Hub, which will result in fewer operational risks and outages at the facility. The savings to customers and the reduction in outages and operational risks is a benefit to customers, and approval of the petition supports the State's clean energy goals because it allows for the connection of offshore wind energy and other renewable energy to the Brooklyn Clean Energy Hub.

***Subject*:** The Commission adopted an order to grant, on an emergency basis, the petition to build four additional interconnection points and an increase above the $810 million cap for those additional connection points at the Brooklyn Clean Energy Hub.

***Purpose*:** The Commission adopted an order to grant, on an emergency basis, the petition to build four additional interconnection points and an increase above the $810 million cap for those additional connection points at the Brooklyn Clean Energy Hub.

***Substance of emergency/proposed rule*:** The Public Service Commission adopted an order approving on a permanent basis, subject to the terms and conditions set forth in the order,

***This notice is intended*:** to serve as both a notice of emergency adoption and a notice of proposed rulemaking. The emergency rule will expire on XX-XX-2024.

***Text of rule may be obtained from*:** _____, Public Service Commission, 3 Empire State Plaza, Albany, New York 12223-1350, (518)_____, email:_____@dps.ny.gov

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***Data, views or arguments may be submitted to*:** Michelle L. Phillips, Secretary, Department of Public Service, 3 Empire State Plaza, Albany, New York 12223-1350, (518) 474-6530, email: secretary@dps.ny.gov

***Public comment will be received until*:** 45 days after publication of this notice.

***Regulatory Impact Statement, Regulatory Flexibility Analysis, Rural Area Flexibility Analysis and Job Impact Statement*:** Statements and analyses are not submitted with this notice because the amended rule is within the definition contained in section 102(2)(a)(ii) of the State Administrative Procedure Act.