September 21, 2022

Hon. Michelle L. Phillips
Secretary to the Commission
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223

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

Dear Ms. Phillips:

The New York Offshore Wind Alliance (NYOWA) respectfully submits the following supplemental comments on the Brooklyn Clean Energy Hub ("CEH" or "Hub") concept submitted by Con Edison in the above-referenced matter. NYOWA filed extensive comments regarding the Hub on July 11, 2022. These comments are intended to address new information gleaned from the technical conference on August 17th convened by the New York State Energy Research and Development Authority and the Department of Public Service, information submitted by the company in response to stakeholder questions, and meetings with the utility to address developer concerns.

As a threshold matter, NYOWA maintains the position articulated in its initial comments; namely:

> *NYOWA submits that the best means of testing the merits of the Brooklyn Clean Energy Hub is through an open-source competitive solicitation, examining the viability and cost-effectiveness of alternative solutions for creating headroom for the integration of OSW into Zone J or for the integration of OSW in New York more broadly. One potential avenue is New York's Public Policy Transmission Needs process pursuant to FERC Order 1000. A competitive procurement could also evaluate proposals against non-price criteria such as the benefits accruing to environmental justice communities."*
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> NYOWA Initial Comments on the Clean Energy Hub at 3-4.

While the CEH is a potential solution for integrating significant amounts of new offshore wind generation into Zone J, and while NYOWA acknowledges that few perfect solutions to interconnect significant capacity into New York exist, the record is still incomplete such that consequential questions remain about the project's system impacts and overall constructability when taking into account necessary siting, permitting and construction of

converter stations and cables outside the Con Edison property lines. NYOWA is particularly concerned about future challenges accessing the CEH via 16 AC connections, because as proposed, any difficulties accessing the CEH will be entirely the responsibility of OSW developers and not Con Edison.

Specifically, we believe the record in this matter is remains incomplete and inconclusive as to the following parameters:

- **Curtailment risk** – The CEH is a jumbo-sized Point of Interconnection (POI) for OSW. CEH curtailments and nodal price separation from Zone J prices would be economically harmful to OSW developer because of the Index OREC structure. Con Edison has reported their internal studies that show overall curtailments (inclusive of Tier 4 projects and Beacon and Empire Wind integration into Gowanus and Astoria respectively) of less than 3% overall, and of approximately .1% for OSW specifically over the study period. *See* Con Edison Response to DPS Interrogatory, dated September 16, 2022. While these results are certainly encouraging on their face, it is impossible to replicate or validate this result based on the limited information provided in the company's response.

- **Market price separation risk** – The company has similarly reported to developers that there is little price separation *from the overall 345kv system.* Again, because of the structure of the Index OREC, OSW developers are most interested in any potential separation from *Zone J energy prices.*

- **Energy headroom analysis** – NYOWA believes it is imperative that Con Edison provide an energy headroom analysis not just of the CEH, but as well, of the adjacent substations that are receiving the export power from the CEH. Moreover, this study should address not just peak periods, but off-peak, night-time, and shoulder periods when the risk of generation and load mismatch are potentially the greatest.

- **Deliverability risk** – Con Edison has shared power flow study results to demonstrate the reliability benefits of the CEH. However, such studies did not include details on potential ramifications on deliverability. Such studies are necessary to indicate the actual System Deliverability Upgrade (SDU) risks for potential Class Year developers electing to connect to the Hub.[1] Following are

[1] The deliverability analysis is required to evaluate the requirement of System Deliverability Upgrades (independent of HVAC cables which are needed to connect offshore wind to the Hub) for the 6 GW to be deliverable, so that offshore projects can claim capacity resource interconnection service (CRIS) when they interconnect to the Hub. The deliverability analysis is conducted in the Class Year process and if any SDUs are identified, then developers are cost allocated the SDUs. If the plan is to rate base these network upgrades and the offshore projects connecting to the Hub can claim CRIS rights, this should be expressly stated, and no further analysis is needed. If on the other hand, the Con Edison proposal is that these SDUs will be borne by OSW

the suggested considerations for the analysis to understand the actual impact from offshore wind generation:

- This deliverability analysis should have similar modeling assumptions as NYISO class year studies for generation dispatch, and transmission lines that would be in service for the studied time frame.

- The methodology and criteria of the study should be realistic to identify the actual SDU needed to deliver the generation to load centers. These network upgrades are independent of HVAC lines which are needed to deliver offshore wind from the converter stations.

- The results of the analysis should include the constraints observed including possible mitigations considering various technologies culminating in least cost solutions.

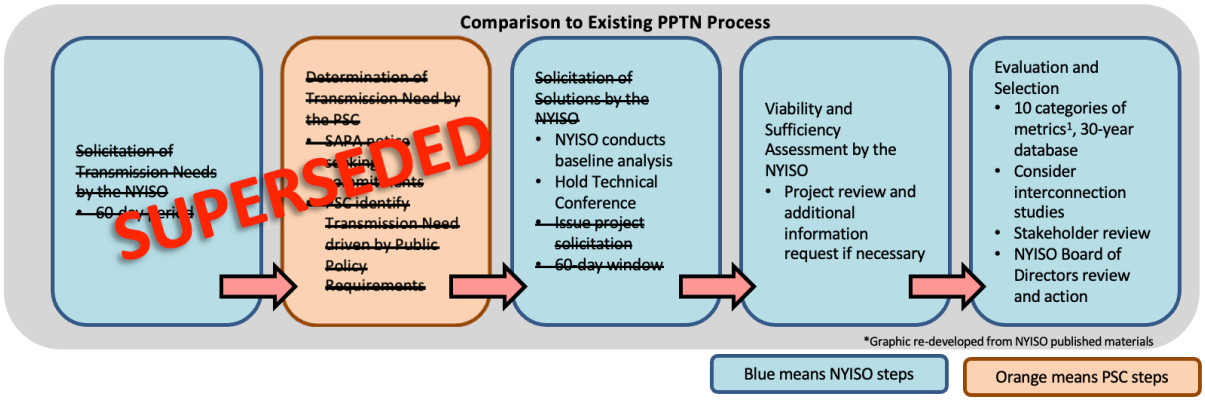
- **Risks associated with the siting, permitting and construction of converter stations and cables** –As several parties have noted, the ability to run multiple submarine cables in the East River is a potential Achilles heel with the CEH. Additional cables will be constrained on a narrow shoreline which will result in permitting challenges, cable thermal limitations, and increase risks of multiple outages in an underwater event. Similar challenges are presented by overland routing in this densely populated area of the city. Con Edison will have to provide more background on the physical and electrical implications of the CEH approaches to confirm that risks are manageable, and the concept is viable.

These issues and concerns could be more fully diligenced and weighed against the merits of alternative solutions in the project review that normally accompanies New York's Public Policy Transmission Needs (PPTN) process.

That said, NYOWA members appreciate and support the Public Service Commission's desire to get out ahead of the transmission challenges that accompany achievement of New York's 9 GW goal, and in particular, the challenges of integrating fully two-thirds of this capacity into Zone J. Should the Commission believe that the 18-24 months normally required to pursue an end-to-end PPTN process is not warranted under the circumstances, NYOWA[2] would nevertheless suggest a more streamlined process that maintains the PPTN's analytical rigor while foregoing its more competitive elements.

developers, then these costs need to be quantified and again, the expected allocation between ratepayers and OSW developers clarified. Developers need to have the best information possible including accurate cost assumptions while developing their OREC bids. If developers have no insight to the cost of deliverability, and there is no clarity now around their responsibility for same, developers could be looking at several hundreds of millions of dollars in unexpected cost post-OREC award.

[2] While this reflects the organization's consensus position, it should be noted that not all NYOWA members support this alternative.



[1] Example from NYISO approved Tariff, Section 31.4.8.1 of Attachment Y, NYISO will consider the following criteria and metrics:

- capital cost estimate, voluntary cost cap, cost per MW ratio, expandability, operability, performance, production cost, property rights and routing, potential construction delays, and *other criteria prescribed by the PSC.*

As depicted in the chart above, in lieu of releasing a more competitive solicitation, the Commission could request the NYISO – or retain an independent consultant – to apply a modified PPTN-style evaluation of the CEH. The evaluation would consist of two major elements - electrical and physical. With regard to the former, the consultant would conduct its own independent study to validate Con Edison's assumptions with a fact-based holistic approach (Generation + Transmission) for total New York ratepayer costs. The consultant can benchmark Con Edison's assumptions against independently determined values to quantify ratepayer savings, as well as any implications to local employment and property tax-base leakage to neighboring states.

The independent consultant's physical review of the Hub would entail consideration of the potential for underground access to the CEH via city streets, as well as the potential for AC cable landfall at the site. Specifically, the consultant should consider: the location of existing utilities and infrastructure and constraints this may impose; near-shore routing and spacing considerations of cable approaches, and environmental and permitting issues, including any clearance and permitting requirements for landfall solutions (e.g., horizontal directional drilling, open cut, etc.).

We would further recommend that the Commission convene a technical conference with the company, OSW developers and the independent consultant to confirm the study's assumptions and feasibility of bringing the multiple HVAC cables to the Hub. These issues were given cursory treatment in the company's petition. This will enable developers to understand the scope, design, and diligence around the Hub to appropriately consider the risks associated with accessing the Hub in lieu of other interconnection opportunities within Zone J.

In contrast to the full PPTN process, we anticipate that the modified PPTN process could be completed within six months or less. A determination to proceed would be based on a confirmation of the project's viability and net ratepayer benefits. If approved, the NYISO

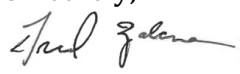
would provide a clear process for inclusion of the Hub as a new POI in the base case and would establish an efficient and equitable process for the transfer of developers' pre-existing queue positions to the Hub if desired.

Lastly, should the Commission decide to move forward with the Hub (irrespective of whether that is under a full-fledged or modified PPTN, or neither), NYOWA would strongly urge the consideration of extending the proposed "ready-built" enveloper to include cable approaches. We suggest that Con Edison's design include "pull-ready" vaults and conduits beyond the station boundary to more accessible areas. As noted, the geography immediately surrounding CEH naturally constrains cable route options. Having Con Edison extend pull-ready conduits into more accessible areas should not limit developer route options and would mitigate near station interference risk, which is of substantial concern for developers absent any further independent examination of the land and sea-based approaches to the CEH. Pre-establishment of station approaches and conduit would also simplify and facilitate multi-developer coordination and ensure that those who access the CEH first do not inadvertently block out future approaches from other entities.

As stated in our initial comments, NYOWA recognizes the need for innovative transmission solutions to address the substantial bottlenecks associated with interconnecting OSW into New York. While we believe there are interesting attributes to the CEH, we would prefer if a decision on the approval of the CEH to be made under the context of a broader OSW transmission strategy for New York. Such a strategy, in NYOWA's view, should address the roles, responsibilities, and risks associated with various approaches. It should also provide more information to market participants and consider alternatives that may be lower-risk or otherwise favorable. Absent that, OSW developers are left with significant uncertainties about the future risks that they will be exposed to when they interconnect in New York, and that uncertainty will be reflected in more conservative capex assumptions and ultimately higher OREC prices for ratepayers.

Thank you for this opportunity to offer further comment.

Sincerely,



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