

NYOWA PPTN/TPAS



Content & Use of Slides

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This slide deck is based on the comments submitted by NYOWA to NYISO for the November 3rd, 2023 technical conference regarding New York City PPTN.

The slides include 3 issues that NYOWA believes NYISO can address in its evaluation criteria under its current tariff.





The PPTN is positive for offshore wind development, but needs evaluation metrics to ensure mitigation of schedule and deliverability risks

NYC PPTN induced risks for New York OSW generators			NYOWA summary recommendations for NYISO evaluation metrics
1 Permitting issues	Federal permitting process/timelines of generators and PPTN projects are misaligned	a) b)	Request detailed permitting risk mitigation plan from Tx developers in PPTN solicitation based on NYISO's engagement with BOEM, USACE, NOAA/NMFS and other federal authorities Explore the potential for avoiding GAP process by siting the offshore platforms in different jurisdictional waters e.g. existing leaseholds.
2 HVDC equipment & export cable procurement	2033 COD is at risk, if OEM manufacturing capacity is not reserved in 2024.	a) b)	Request detailed procurement plans, supported by OEM manufacturer endorsements, for each bid mitigating supply chain risk to ensure PPTN COD by 2033 Require demonstratable experience and capabilities for submarine cable and offshore converter platform and onshore converter procurement with lessons- learned from those experiences
3 Operations Cost & Responsibilities	Planned & unplanned maintenance of offshore Tx equipment/cable without redundancy has significant implications on offshore generators	a) b)	Require detailed O&M plan focusing on planned and unplanned outage duration of the offshore transmission components Consider operational performance mechanisms that would award the offshore Tx operator to minimize outage time as each offshore wind farm outage has a significant impact to a decarbonized grid post 2030.

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Key takeaway: It it critical that the procurement of any independent transmission system considers incentives or penalties to drive on-time deliverability of the system, and continued operability after installation.

3

NYC PPTN risks for generator project viability at a glance





OSW generator risk profile overview for NYC PPTN

Major drivers of uncertainty and their impacts on generation project financial viability

Drivers of uncertainty for generators Implications of uncertainty for generators Α Offshore • New York Bight or close to MA areas? Or both? 1 Cost effective OSW interconnection of generation helps NYS policy targets. • Close enough to all sites for HVAC connection(s)? While NYISO is rightly focused on creating an offshore platform to solve cable Platform routing & onshore headroom, it should also consider generator's const/ease What permitting jurisdiction? State, USACE, BOEM or all three? Ease of • Site control of offshore platform seabed achieved? of interconnection to keep OREC low. Location generator Equipment needs: If interconnecting HVAC at offshore POI, then cable corridors, collector station (if any) design needs re-scoping. В interconnection Brooklyn Clean Energy Hubor other NYC nodes? • Unclear if generators can still pursue own NYC gentie approach or will be Full deliverability during the summer, what about light load? Onshore required to only use the new offshore POIs for injections. • What happens to other generation gen-tie queue positions Upgrades onshore? 2 • N-1-1-0 (ConEd) or N-1-1 (NYPA) reliability metrics? Unclear NYC PPTN policy for failing to energize lines by 2033 target С date creates major timeline uncertainty on generators. Can a common collector station be approached by more than Project-on-Uncertain location, potentially in generator's OCS leasehold if any dozen HVAC cables? required, creates risk for generator layout decisions. Project project risk • HVDC equipment manufacturing capacity secured by the Tx Uncertain offshore interconnection technology/spec for offshore developer? Components collection creates added pressure on generators to order long lead No redundancy or meshed-network required for wettime HVAC or HVDC transmission cable & equipment. transmission? 3 Transmission reliability requirements; Unscheduled outages of D System transmission creates a much larger risk to offshore generators than How does the Tx project align with individual generation those to onshore peers. Ref: R3 OREC \$145/MWh lost revenues Permitting projects' design envelope assumptions in BOEM COP filings? reliability and compared to avg. \$40/MWh for onshore generators. • Will the next federal administration during 2025 support PPTN Impacts No-redundancy on offshore piece creates major concern for long **O&M** issues offshore transmission permitting? duration outages on generators expense. Ε TBD project specs createrisks on capex, so generators are likely to 4 Do NYISO gualified transmission developers have HVDC provide scenarios to NYSERDA with differing cost assumptions converter platform experience in the US? Tx Developer necessitating future OREC repricing or a large risk-premium. **OREC** bid pricing Any conflicts of interest with offshore generation? Capabilities Uncertain onshore injection node for LMBP for a zonal index-OREC • Will the Tx offshore operator have skin in the game for wetremuneration is a kin to driving blind in terms of basis risk. transmission reliability and skills to swiftly resolve outages?

- NYOffshore
 - Key takeaways

The current knowns & unknowns about NYISO NYC PPTN evaluation criteria threaten the generator project's bankability when solely rely on NYC PPTN.

If NYISO is unable to make necessary updates to its procedures/tariffs by 2024 PPTN bid due date, NYSERDA (hence ratepayers) will need to compensate generators for the added risks for a new NYC interconnection and O&M of offshore transmission system.