

Long Island Offshore Wind Export PPTN: Evaluation Metrics

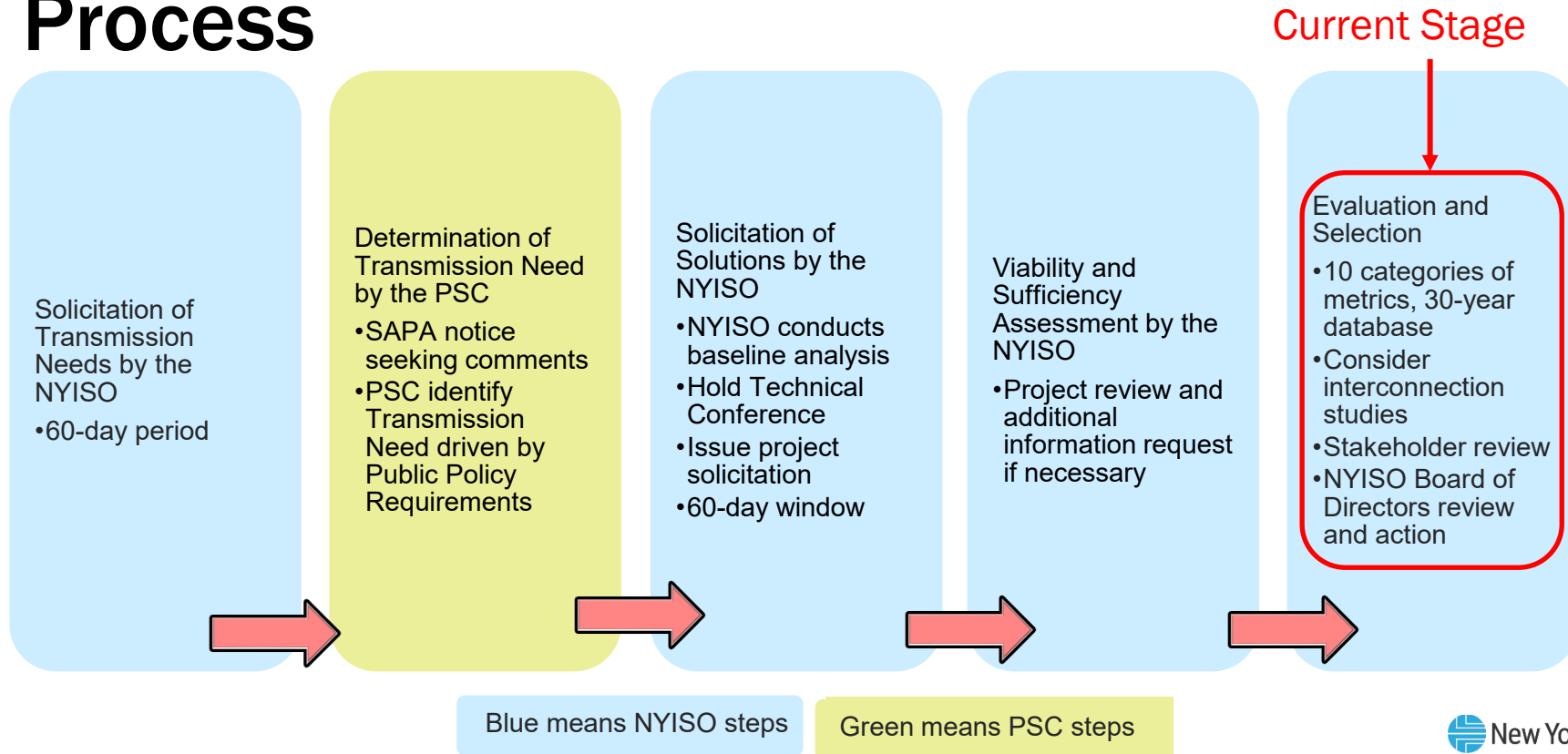
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Public Policy Transmission Planning Process



Objective

- Overview of metrics to be used in evaluation and selection of more efficient or cost effective solution
- Solicit feedback from stakeholders
- Specific study assumptions will be discussed at future stakeholder meetings

Criteria and Metrics

- **Per Section 31.4.8.1 of Attachment Y to the NYISO OATT, 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
- **WNY and AC Transmission reports summarize how comparative metrics were evaluated in prior Public Policy planning cycles**
 - <https://www.nyiso.com/documents/20142/1396390/Board%20Decision%20Re%20WNY%20Report%2020171017.pdf>
 - <https://www.nyiso.com/documents/20142/1390750/Board-Decision-AC-Transmission-2019-04-08.pdf>
- **Evaluation criteria were discussed with potential Developers during July 2021 Technical Conference**

Unique Factors of the Long Island OSW PPTN

- Transmission lines are predominantly underground in densely populated areas, and are proposed in new transmission ROWs
- Proposed projects vary greatly in design and are considerable in scope
- Transmission projects increase transfer capability between localities in both directions
- First PPTN solicitation since voluntary Cost Containment was added as an evaluation metric
- The PPTN is to unbundle resources that are not yet on the system

Independent Overnight Cost Estimates

- NYISO's consultant, SECO, will develop independent cost estimates for each proposed project, considering required material and labor cost by equipment, engineering and design work, permitting, site acquisition, procurement and construction work, and commissioning.
- Cost estimates for Network Upgrade Facilities will be informed by the System Impact Studies and incorporated to the extent available.

Cost Containment

- **The NYISO will consider cost containment proposals based on an evaluation of both quantitative and qualitative metrics:**
 - Quantitative Evaluation: The NYISO will use the proposed cap for contained capital cost elements (Included Capital Costs) to estimate the total capital cost of the project that is used in existing quantitative cost metrics.
 - Qualitative Evaluation: The NYISO will assess the effectiveness of the proposed Cost Cap in providing an incentive to the Developers to contain their Included Capital Costs and protect ratepayers from Included Capital Cost overruns.

Transfer Capability and Cost per MW

- **Increases to the Long Island export and import capability from the proposed project are key system benefits and will be evaluated against overall project cost.**
- **Impacts across other major southeast NY interfaces will be evaluated, along with impacts in transferring power within Long Island.**

Operability

- The effectiveness of controllable transmission facilities (*e.g.*, PARs and HVDC) for operational flexibility will be evaluated.
- The NYISO will assess the ability of facilities to operate in extreme weather conditions that will more likely occur with climate change (*e.g.*, equipment hardening).
- Other impacts to operability may also be evaluated, such as: dispatch of generation, access to operating reserves, access to ancillary services, and ability to remove transmission for maintenance.

Expandability

- **Project proposals that can facilitate future interconnections that will more efficiently support expansion of renewable energy will better support the expansion of renewable generation and would be ranked higher in this evaluation metric. Expandability will consider:**
 - electrical expandability of the transmission system (i.e., support greater penetration of OSW), and
 - physical expandability of transmission system (i.e., creation of suitable OSW interconnection points).

Property Rights & Project Schedule

- **SECO will review, in consultation with the DPS, transmission routing studies and substation plans provided by Developers; prepare an independent estimate to construct the proposal; and identify constructability risks.**
- **Identified constructability risks will be considered in evaluating the proposed project's schedule, cost estimates, and expandability.**
- **The independent duration estimates will include, among other things, the anticipated time for Article VII application preparation, Article VII approval, procurement, and construction.**

Production cost and renewable energy deliverability

- The increased transfer capability and relief of New York transmission constraints will result in changes in production cost, locational-based marginal prices (LBMPs), load payments, and CO₂ and other emissions. To support achieving the CLCPA mandates, transmission proposals that result in reduction in state-wide congestion and emissions, as well as minimizing curtailment of renewable generation, will be more favorable.
- Results from production cost simulations such as the following categories may be considered:
 - Production Cost / load payment / demand congestion change / average LBMP change
 - CO₂ emission change
 - Incremental energy over the LI-NYISO interface
 - Renewable generation curtailment and energy deliverability
- Evaluation will consider state-wide impacts of proposed projects on production costs and renewable energy deliverability

ICAP Savings

- Evaluate whether particular projects are likely to produce additional Installed Capacity (“ICAP”) cost savings relative to the other proposed projects.

Other Considerations

■ Consequences for Other Regions

- Through the NYISO Transmission Interconnection Procedures, the NYISO will consult with the PJM and ISO-NE concerning any potential impacts due to the proposed projects, if necessary.

■ Impact on Wholesale Electricity Markets

- NYISO staff will review and determine if there is any adverse impact on the New York wholesale electricity markets.
- The draft results will be provided to Market Monitoring Unit for its review and consideration.

■ Evaluation of Interaction with Local Transmission Owner Plans

Questions?

Our Mission & Vision



Mission

Ensure power system reliability and competitive markets for New York in a clean energy future



Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation