Offshore Wind
Program Request for Information
OSWRFI24-2

RFI Release Date: December 18, 2024
Revised date: January 14, 2025

Update to Offshore Wind Program Request for Information – OSWRFI24-2

Original Release Date: December 18, 2024

Updated January 14, 2025

Summary of Revisions

The Response due date has been extended from January 29, 2025 to February 19, 2025 by 3:00 p.m.

Responses Due: February 19, 2025 by 3:00 PM Eastern Prevailing Time

The purpose of this Request for Information (RFI) is to invite external stakeholders to review and comment on the potential structure of NYSERDA's 6th solicitation (NY6) for Offshore Wind Renewable Energy Certificates (ORECs) with specific emphasis on integrating NY6 with the New York Independent System Operator's (NYISO) ongoing New York City Public Policy Transmission Need (NYC PPTN) solicitation[1].

NYSERDA does not intend to publish responses to this RFI. However, if you wish for your responses to remain confidential, please mark them "Confidential" or "Proprietary," in accordance with the procedure described below. If NYSERDA receives a request from a third party for responses received that have been marked "Confidential" or "Proprietary," NYSERDA will process such request under the procedures provided by New York State's Freedom of Information (FOIL) regulations as detailed below (see foil@nyserda.ny.gov for additional information). The FOIL provides exceptions to disclosure, including Section 87(2)(d) which provides for exceptions to disclosure for records or portions thereof that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause substantial injury to the competitive position of the subject enterprise." Information submitted to NYSERDA that the disclosing party wishes to have treated as proprietary and confidential trade secret information should be identified and labeled "Confidential" or "Proprietary" on each page at the time of disclosure. This information should include a written request to exempt it from disclosure, including a written statement of the reasons why the information should be exempted. See Public Officers Law, Section 89(5) and the

[1] NEW YORK CITY OFFSHORE WIND PUBLIC POLICY TRANSMISSION NEED PROJECT SOLICITATION. April 4, 2024. https://www.nyiso.com/documents/20142/40894368/New-York-City-Offshore-Wind-Public-Policy-Transmission-Need-Project-Solicitation.pdf/90f7cebe-e8f0-e094-1aa1-f61cc55dd84f

procedures set forth in 21 NYCRR Part 501.

Respondents are not required to answer all questions and should focus on questions relevant to their participation in NY6, the NYC PPTN, and/or their field of expertise.

Comments responding to this RFI are due by February 19, 2025 at 3 p.m. ET and should be sent to offshorewind@nyserda.ny.gov with the subject line "NY6 RFI Comments". NYSERDA may reach out to respondents to seek clarifications. Any questions about this RFI or requests to discuss this RFI should be directed in writing to offshorewind@nyserda.ny.gov. NYSERDA may also at its sole discretion at any time also elect to engage in discussions with potential respondents and other interested parties regarding the matters described in this RFI.

Contents:

I. Background and Objectives

This RFI builds upon New York's offshore wind solicitations to-date, the New York State Public Service Commission (Commission) Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement, issued on July 12, 2018 in Case No. 18-E-0071, Order Adopting Modifications to the Clean Energy Standard issued on October 15, 2020 in Case No. 15-E-0302, Order Addressing Public Policy Requirements for Transmission Planning Purposes issued June 22, 2023, (the PPTN Order),[2] New York's 10-Point Action Plan,[3] the New York Independent System Operator's (NYISO) ongoing New York City Public Policy Transmission Need solicitation (NYC PPTN Solicitation),[4] the New York Power Grid Study (Power Grid Study),[5] the NYSERDA Offshore Wind Cable Corridor Constraints Assessment (Cable Study)[6], and the Climate Leadership and Community Protection Act (Climate Act) Final Scoping Plan (Scoping Plan)[7]. Respondents to this RFI should also note the concurrent, ongoing Draft Clean Energy Standard Biennial Review submitted by NYSERDA and DPS in July of 2024 to the Commission[8] and the State Energy Planning Board's development of the Draft Scope for the New York State Energy Plan released in September 2024 and soliciting comments through December 16, 2024.

Under the Climate Act, New York State has adopted some of the most ambitious clean energy targets in the nation, including an offshore wind goal of installing 9,000 megawatts by 2035 and economy-wide decarbonization by 2050.

The objective of this RFI is to invite external stakeholder feedback on the potential structure and timing of the next OREC Request for Proposals (NY6) and how that RFP should address the risks relating to integrating generation proposals with the transmission infrastructure expected to result from the New York City PPTN (the NYC PPTN Transmission Project).

Feedback is primarily sought from prospective proposers into the forthcoming NY6, but NYSERDA welcomes feedback from all stakeholders as well.

This RFI refers to potential characteristics of upcoming solicitations. However, all aspects of any proposed solicitation, including any features described or not described herein, may be altered, removed, or otherwise changed at the sole discretion of NYSERDA.

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[2] 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 https://documents.dps.ny.gov/public/ Common/ViewDoc.aspx?DocRefId= {A077E488-0000-C217-BAED-C4B0826480C5}.

[3] *New York State's 10-Point Action Plan to Expand a Thriving Large-Scale Renewable Industry* (October 2023), NYSERDA, https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Offshore-Wind/10-point-plan.pdf

[4] Case No. 22-E-0633, *Order Addressing Public Policy Requirements for Transmission Planning Purposes* (June 22, 2023), https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={A077E488-0000-C217-BAED-C4B0826480C5}

[5] Case No. 20-E-0197, Initial NY Power Grid Study Report (January 19, 2021), https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={E41D6A17-1EA5-47D3-90E8-A4E981705FE3}

[6] NYSERDA Offshore wind Cable Corridor Constraints Assessment. 2023. https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Offshore-Wind/2306-Offshore-Wind-Cable-Corridor-Constraints-Assessment--completeacc.pdf

[7] New York State Climate Action Council. 2022. "New York State Climate Action Council Scoping Plan." climate.ny.gov/ScopingPlan

[8] Case 15-E-0302: Clean Energy Standard. NYSERDA and DPS Report: CES Biennial Review. July 8, 2024. https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={A0019490-0000-C313-A126-877CFFAA2B0C}

Coordinated Transmission in New York

In accordance with the Commission Orders referenced above, NYSERDA's OREC solicitations to date have required bidders to be responsible for developing radial offshore wind projects inclusive of generation and export infrastructure and interconnection with the onshore grid.

In advancing offshore wind transmission, the specific constraints of cable routing described in the Cable Study and confirmed in the PPTN Order have underscored the complexities and urgency of coordinated transmission solutions. Specifically, interconnecting offshore wind farms via the transmission project(s) designated for development by the New York City PPTN (the NYC PPTN Transmission Project) is expected to enhance utilization of limited cable routes and onshore points of interconnection (POIs) as highlighted in the Cable Study.

Accordingly, NYSERDA is seeking stakeholder feedback regarding how its OREC solicitations can maximize utilization of this coordinated transmission infrastructure if and when approved to do so by the Commission.

NYSERDA currently contemplates that in NY6, offshore wind developers will submit proposed projects that would interconnect to the NYC PPTN Transmission Project. This RFI serves as an invitation to offshore wind developers and other stakeholders to provide insight into cost-effective and practical means of risk mitigation and interfacing the NYC PPTN Transmission Project(s) with NY6 to ensure successful utilization of the infrastructure to support achievement of Climate Act goals while protecting New York ratepayers.

The key responsibilities of NY6 Offshore Wind (OSW) "Generation Only" Developers and NYC PPTN Transmission Project Developers that NYSERDA has currently identified, along with potential risks each are exposed to, are summarized below in Table 1. Respondents to this RFI are encouraged to review related key elements of the NYISO Open Access Transmission Tariff (NYISO OATT) including the NYISO Outage Scheduling Manual and the *pro forma* Public Policy Transmission Planning Process Development Agreement and Operating Agreement.

For additional reference, Appendix A includes a summary prepared by Power Advisory LLC describing risk mitigation and contracting mechanisms deployed in select European offshore wind markets.

Table 1: Responsibilities and Potential Risk Exposure of NY6 Generation and NYC PPTN Transmission Project developers

NY6 OSW "Generation Only" Developers	NYC PPTN Transmission Project Developer
Key Responsibilities	

• Interconnection to the NYC PPTN Transmission Project
• Delivery of energy to the NYC PPTN Transmission Project
• Compliance with:
  ○ OREC Purchase and Sale Agreement (PSA) with NYSERDA
  ○ Interconnection Agreement with the NYISO and the Connecting Transmission Owner (which in this case will be the NYC PPTN Transmission Project developer).
	• Timely completion of the NYC PPTN Transmission Project, including:
	  ○ Determining the location of offshore platforms
	  ○ Proceeding through the NYISO interconnection process (including securing Interconnection Agreements at onshore POIs, and paying for necessary upgrades to Connecting Transmission Owner transmission infrastructure)
	  ○ Designing cable routing
	  ○ Installing offshore and onshore export cables and interconnecting to onshore POI
	• Operating and maintaining the NYC PPTN Transmission Project to applicable requirements and standards of the NYISO OATT.

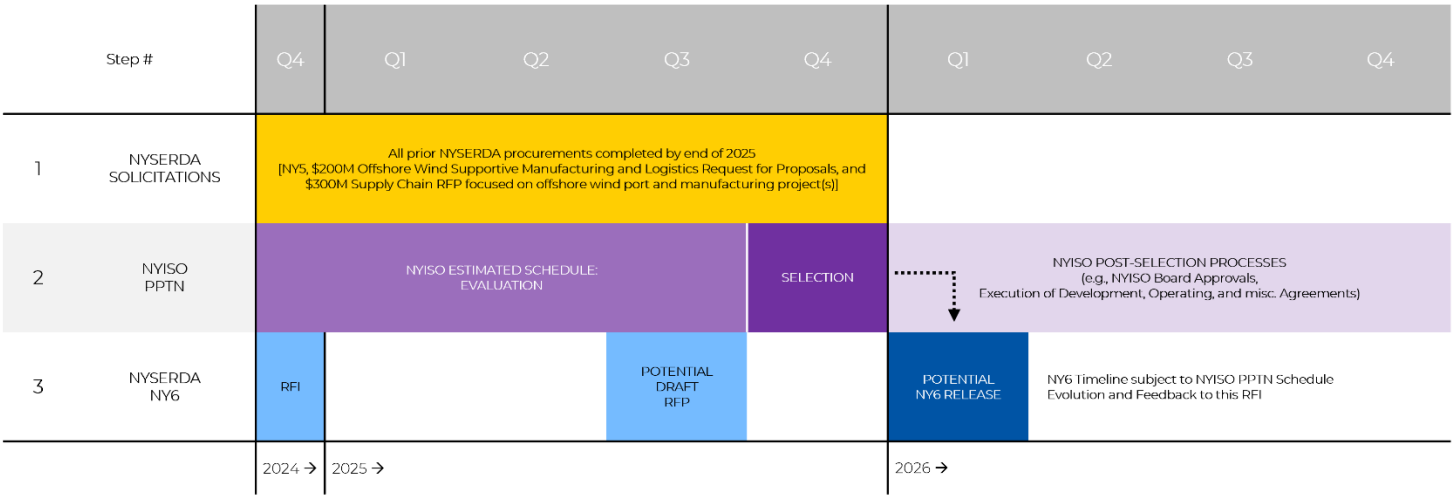
Potential Risk Exposure	
• Inability to deliver energy due to delays in completion or outage periods of the NYC PPTN Transmission Project.	• Delay in or impact to cost recovery if completion of the NYC PPTN Transmission Project is delayed.

II. Potential NY6 Approach and Timing

NY6 Timing

NYSERDA currently expects NY6 to launch on the following illustrative timeline:

Figure 2: Illustrative timing and sequence of NYSERDA's NY6 solicitation.



NYSERDA currently plans to launch New York's sixth offshore wind solicitation (NY6) to leverage integration with the NYC PPTN Transmission Project. The timing of NY6 will be set to follow the resolution of the NYC PPTN Solicitation process. Therefore, the illustration of NY6 timing in Figure 1 is provisional and for illustrative purposes only.

NYSERDA may or may not allow for radial offshore wind projects inclusive of generation and export infrastructure and interconnection with the onshore grid to be bid into NY6. Furthermore, the design of NY6 may or may not vary from NY5 and other prior solicitations in various ways. The design elements included in this RFI relate specifically to how NYSERDA is considering approaching generation-only projects in NY6, if approved by the Commission. Respondents are welcome to provide feedback on any aspects of the approaches described, and/or respond to the specific questions contained in Section IV below.

[1] https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2022-Solicitation.
[2] https://www.nyserda.ny.gov/All-Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2023-Solicitation.
[3] Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Order Denying Petitions to Preserve Competitive Renewable Energy Market and Protect Consumers (issued on October 12, 2023).
[4] https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Offshore-Wind/10-point-plan.pdf

NY6 Planned Design

If approved by the Commission, NYSERDA anticipates that NY6 may focus on soliciting "Generation-Only" OSW proposals to prioritize utilization of the NYC PPTN Transmission Project.

Respondents are encouraged to reference:

The Public Service Commission (Commission) Orders: Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement, issued on July 12, 2018, Order Adopting Modifications to the Clean Energy Standard issued on October 15, 2020 in Case No. 15-E-0302, Order on Power Grid Study Recommendations issued on January 20, 2022 in Case Nos. 20-E-0197, 18-E-0071, and 15-E-0302, describing offshore wind procurement to require direct radial systems for offshore wind, require where feasible HVDC, and preserving optionality for offshore transmission. Additional Commission action would be needed to enable procurement of ORECs from "Generation Only" OSW projects as described in this RFI.

The Commission Order Addressing Public Policy Requirements for Transmission Planning Purposes issued June 22, 2023, (the PPTN Order)[9] including specifically the detailed criteria and specifications listed in Appendix A to the PPTN Order;

The New York Independent System Operator's (NYISO) ongoing evaluation of proposed solutions to the New York City Public Policy Transmission Need (NYC PPTN) Solicitation[10]; and

NYISO's Open Access Transmission Tarriff (OATT). As of publication of this RFI, the NYISO OATT reflects the Federal Energy Regulatory Commission (FERC) Commission Order issued on October 1, 2024, accepting proposed tariff revisions filed on September 12, 2024, in Docket No. ER24-1866-002, effective July 1, 2024. These tariffs also include effective, proposed revisions in Docket Nos. ER24-1915 et al. and ER24-342-000, currently pending acceptance from FERC.

It is important to note that New York State Public Service Commission Orders and NYISO governing documents, including the most current version of the NYISO OATT at all times, cannot be changed by NYSERDA and therefore the design of NY6 must take the requirements in those documents into account.[11]

III. Content of Response

Responses should be concise and focus on areas in which the respondent has a particular interest or expertise. Please limit responses to 20 pages or less. Respondents should not seek to answer all questions but focus on questions relevant to their participation in NY6, the NYC PPTN, and/or their field of expertise.

Responses should include, and NYSERDA reserves the right not to review or consider responses that do not include, the following information and items:

[9] 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 https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={A077E488-0000-C217-BAED-C4B0826480C5}.

[10] NYISO New York City Public Policy Transmission Need Project Solicitation. https://www.nyiso.com/documents/20142/40894368/New-York-City-Offshore-Wind-Public-Policy-Transmission-Need-Project-Solicitation.pdf/90f7cebe-e8f0-e094-1aa1-f61cc55dd84f

[11] New York Independent System Operator. Tariffs, FERC Filings & Orders. https://www.nyiso.com/regulatory-viewer

- Respondent's name, affiliation, title, and primary contact information.
- General background about the Respondent's organization, noting whether Respondent is a potential proposer into NY6 (and/or future NYSERDA OREC RFPs generally) or the NYC PPTN Solicitation.
- Each page of the response should include a header stating the name of the respondent.
- Where applicable, comments should include the RFI Section IV question number to which it refers.
- Respondents should designate information intended to remain confidential as "Confidential" or "Proprietary".
- Respondents should not mark their entire responses as "Confidential" or "Proprietary" unless there is no content whatsoever that is not confidential.

Where applicable, comments should include the RFI Section IV question number to which it refers.

Respondents should designate information intended to remain confidential as "Confidential" or "Proprietary." Respondents should not mark their entire response as "Confidential" or "Proprietary" unless there is no content whatsoever that is not confidential.

IV. Specific Questions Seeking Stakeholder Feedback

Structure, Timing, and Eligibility

1. What is your organization's level of interest in proposing into NY6?
    a. How does the NYC PPTN timeline interact with your participation or potential participation in NY6?
    b. In reference to the NYISO PPTN Process, what level of information about the results of the PPTN process is needed in order for you to begin preparation of accurate bids for NY6 (e.g., NYISO Draft Report issuance, NYISO Board Action, execution of the Development Agreement, submission of a siting application with New York State authorities, issuance of permits, other)?
    c. Once relevant information is available to the potential proposers, how much time should be allowed before the launch, and bid submission deadline, for the NY6 RFP to enable potential proposers to design and prepare fully responsive bids for NY6?
    d. Will the NYISO tariffs, Development Agreement, and Operating Agreement provide enough information about the progress of the NYC PPTN to enable a bidder to commit to a particular schedule and in-service date in its bid? If not, what information about the development and construction of the NYC PPTN Transmission Project should be available to generation developers? If the Development and Operating Agreements can be modified to allow NYISO to share additional information with bidders, what information is most important to share?
    e. Does the proposed timeline enable project CODs by, or after, January 1, 2033 (noting that ORECs would not be able to be generated or paid for by NYSERDA prior to the NYC PPTN

Transmission Project being completed)? If not, how can the timeline be adjusted to do so?

2. To maximize the utilization of the offshore POIs and optimize portfolio cost of all projects connecting to the NYC PPTN Transmission Project, NYSERDA is considering an approach where bidders are required to submit alternative Proposals that interconnect at some or all of the NYC PPTN Transmission Project's offshore POIs (i.e. proposing not only to connect with the 'closest' POI but providing alternatives that connect to each of the NYC PPTN offshore POIs). NYSERDA would then through the evaluation and award process in NY6 seek to optimize utilization of NYC PPTN project capacity among NY6 Proposals.
    a. What considerations can NYSERDA take with the above approach to enable offshore wind bidders to respond to NY6?
    b. In such an approach, NYSERDA recognizes that the bidder may not have surveyed cable routes to each of the NYC PPTN Transmission Project POIs, creating uncertainty in pricing. How can NYSERDA solicit responsive Proposals that will support the feasibility and price certainty of options to connect to multiple platform alternatives?
    c. Are there appropriate adjustment mechanisms to fairly accommodate differences between assumed and ultimate costs to develop such pathways? A potential approach could solicit normalized cost mechanisms in NY6 to enhance comparability and competition between projects and support related price adjustments. Would this approach lend itself well to appropriate normalized costs – namely, costs per mile of export cables and related infrastructure, and substantive Proposal cost certainty? Please describe what cost information would support such an approach.

3. How should NYSERDA require/encourage NY6 OSW Generation Only Proposals to optimize the capacity of the offshore POI(s) resulting from the awarded NYC PPTN Transmission Project? Are there alternative solutions to the previous question that may optimize outcomes in NY6 to the combined challenge of: (i) maximizing the utilization of the NYC PPTN Transmission Project, (ii) maximizing competition through the fair evaluation of proposals, and (iii) minimizing onerous Proposal development requirements for bidders? Please explain.

4. In ORECRFP24-1, NYSERDA accepted Proposals for ORECs produced from up to three Offshore Wind Generation Facilities. In integrating with the NYC PPTN Transmission Project in NY6, should NYSERDA continue to accept Proposals from multiple Wind Generation Facilities? Please explain.

5. For projects connecting to the NYC PPTN Transmission Project, should NYSERDA continue to offer Proposers to purchase ORECs associated with a Maximum Project Capacity of 1.10 multiplied by the Offer Capacity as per prior solicitations or should the Maximum Project Capacity be reduced to the Offer Capacity or a different amount? Please explain.

Project-on-Project Risk

6. Please see Appendix A, and comment on project-on-project risk mitigation approaches utilized outside of New York State. Are there risk mitigation approaches from global offshore wind markets

that should be incorporated into NY6? What challenges exist in adapting risk mitigation approaches from other markets into NY6? Are there other models NYSERDA should consider?

7. In adapting New York's overall program framework, and for the protection of ratepayers, NYSERDA is focused on avoiding the potential for increased OREC costs to be incurred due to the generation facility potentially coming online prior to integration with the completed NYC PPTN Transmission Project. This will require close alignment of development and construction schedules between the NYC PPTN Transmission Project Developer and NY6 OSW Generation Only Developers to minimize such risk. To achieve this objective,
    a. How should permitting, procurement, and construction milestones of the NYC PPTN Transmission Project align with procurement/construction milestones of the offshore wind generation project?
    b. The PPTN Order encourages transmission developers responding to the NYC PPTN Solicitation to begin work on permitting solutions as a means of progressing their proposed designs to assure readiness by January 1, 2033. To bid a NY6 OSW Generation Only Project, what information would you consider necessary to feel confident that such efforts have progressed in a manner to alleviate risks related to permitting of the selected solution?
    c. What other significant potential sources of delay are concerning to you in your assessment of the potential risk of the NYC PPTN Transmission Project's delay? Are there key milestones in the transmission development timeline that must be achieved before you would commit to a milestone in the generation project? What are those milestones?
    d. If the NYC PPTN Transmission Project incurs delays, what measures can the NY6 OSW Generation Only Developers take to modify their development schedules to reduce the risk of reaching completion substantially in advance of availability of the NYC PPTN Transmission Project? What costs would be associated with such measures?
    e. What development progress information concerning your NY6 OSW Generation Only Development Project are you willing to share with NYC PPTN Transmission Project Developer to support alignment?

8. Notwithstanding efforts to maximize alignment, if the NYC PPTN Transmission Project is delayed, should the OREC price be adjusted? If not, why not? If so, how should such an adjustment be structured to account for (temporarily stranded) capital costs and depreciation while protecting the interests of New York ratepayers?

9. NYSERDA is considering various potential approaches to address the risks associated with a mismatch in completion of the NYC PPTN and the offshore wind generation project.
    a. Providing a buffer between the expected in-service date of the NYC PPTN Transmission Project and the expected date of Commercial Operation under the PSA for NY6 could reduce the risk of ratepayers incurring costs due to a potential delay in the NYC PPTN project completion but could also potentially increase ratepayer costs if the NYC PPTN project is completed on time and left unutilized during the buffer period. Would it be appropriate to

include such a buffer period in NY6, and if so, how long should the buffer be?

b. To support the protection of ratepayers, NYSERDA is considering including a threshold stipulation whereby the Contract Delivery Term of the NY6 OSW Generation Only OREC PSA would not commence (i.e., NYSERDA would not commence purchasing ORECs) prior to a specific date (e.g., January 1, 2033), said date being in alignment with the NYC PPTN Transmission Project's in-service deadline as directed by the Commission. Please comment on this approach.

c. NYSERDA is also considering deferring NYSERDA's commencement of the Contract Delivery Term under NY6 (while preserving the Contract Tenor) for a period equivalent to a delay in completion of the NYC PPTN Transmission Project, which could also mitigate the risk NY6 OSW Generation Only Project Developer losses due to a delay in the NYC PPTN Transmission Project. Please comment on this approach.

10. Under the potential approaches outlined in the preceding question, NY6 OSW Generation Only Developers could still be exposed to additional capital and operational expenses including financing costs and equipment maintenance and warrantee costs. What are these expenses and what are their magnitude? Should a mechanism be established to compensate NY6 OSW Generation Only Developers for such expenses, and if so, how should it be designed to support project feasibility while protecting the interests of New York ratepayers?

11. Interconnection via the NYC PPTN Transmission Project is anticipated to reduce interconnection cost risk significantly in comparison to interconnection at an onshore POI. Accordingly, NYSERDA is considering not including an interconnection cost risk-sharing mechanism for these projects. Notwithstanding the reduced interconnection cost risk, should an interconnection cost sharing mechanism be included in the NY6 OSW Generation Only Project's OREC PSA? And if so, how should it be modified?

12. During planned and unplanned outages of the NYC PPTN Transmission Project facility, NY6 OSW Generation Only Project Developers could be subject to lost revenue and increased costs. What are these costs, and which costs are not addressed in the NYISO OATT and/or the Operating Agreement? Acknowledging that the NYISO OATT and the Operating Agreement executed between the NYISO and NYC PPTN Transmission Project developer provide for the operability obligations of the NYC PPTN Transmission Project, are there examples of how outage-related losses have been addressed in other jurisdictions that NYSERDA should consider? Please explain.

Interconnection Technical Issues

13. NYSERDA anticipates that detailed information on the physical design and implementation plan for the selected NYC PPTN Transmission Project will be available to NYISO. Such information is anticipated to include technical design, permitting and construction plans, overall project timeline, operations and maintenance plan, notice provisions, risk assessments, and mitigation plan. What information regarding the NYC PPTN Transmission Project would you consider essential to support cost-efficient

bids to NYSERDA and financeable terms of NY6 PSAs?

14. How should the NY6 OSW Generation Only Project RFP and OREC PSA terms be structured to allow for appropriate project design modifications to optimize interconnection to NYC PPTN Transmission Project infrastructure?

15. The development and operations period of the NYC PPTN Transmission Project will be governed by its executed Development Agreement and Operating Agreement with the NYISO. Referring to the NYISO *pro forma* Agreements as provided in the NYC PPTN Solicitation and OATT, and acknowledging importantly that the NYISO is under no obligation to deviate from its *pro forma* terms, what specific modifications to either of these Agreements between the NYISO and the NYC PPTN Designated Transmission Project developer would be helpful for NY6 OSW Generation Only Project Developers to support the submission of cost-efficient bids to NYSERDA and financeable terms of NY6 PSAs?

Cost

16. NYSERDA anticipates that variations in NY6 OSW Generation Only Project costs will be driven, in significant part, by wind farm size (capacity) and the distance between the NY6 OSW Generation Only Project lease area's location and the OREC Delivery Point (expected to be an offshore POI resulting from the NYC PPTN process, equivalent to a POI in Zone J, such that the "Applicable Zone" would be Zone J and the associated Reference Capacity Price and Reference Energy Price would refer to Zone J). Are there other significant drivers of project cost? If so, please explain.

17. Project-on-project risk between the delivery of the NYC PPTN Transmission Project and the NY6 OSW Generation Only Project is acknowledged to have important implications with respect to project financing and supply chain contracting. Please explain your primary concerns regarding such challenges (cost, terms, equipment delivery schedule) and specific measures that NYSERDA could consider to help mitigate such challenges and provide a cost-effective approach for Generation-Only projects integrating into the NYC PPTN Transmission Project.

18. A key opportunity for U.S. offshore wind cost-reduction was enacted through the eligibility of power conditioning and export equipment bundled with an offshore wind farm to qualify as energy property for the Investment Tax Credit (ITC) in the Inflation Reduction Act of 2022. Eligibility, however, is dependent upon ownership, where *"a taxpayer must directly own at least a fractional interest in the entire unit of energy property for a section 48 credit to be determined with respect to such taxpayer's interest."*[12] To access such potential ratepayer savings, NYSERDA is eager to evaluate potential pathways to satisfy the U.S. Treasury's definition of fraction[al] interest. In comments to the PPTN proceedings, a transmission developer specifically recommended that OSW developers offer the PPTN developer a minority share in the offshore wind farm(s) to qualify for the ITC.
    a. Do you think this approach could be viable? Why or why not?

[12] Internal Revenue Code, Title 26 U.S.C, Prop. Reg. Teas. § 1.48-14(e)(2)

b. How would you recommend NY6 be designed to enable this approach (e.g. NY6 solicitation timing in relation to conclusion of the NYISO PPTN Solicitation process, price adjustment mechanisms, etc.)?
c. In addition to potential cost-savings to ratepayers, could such an agreement potentially provide additional benefits in mitigating project-on-project risks in integrating with the NYISO PPTN? Please explain.

Offshore Wind Network Integration

19. The Commission makes several references to the role of expandability of solutions throughout the PPTN Order – both in relation to the NYISO's standard PPTN process and in its prescribed technical requirements and evaluation criteria to be used in the NYC PPTN solicitation. One approach to serving this Order is to enable Mesh Readiness of the offshore POIs. If the selected PPTN Project were to include Mesh Ready offshore POIs, what opportunities or concerns would you identify in connecting with such a design? How might you recommend NYSERDA's approach to NY6 help to mitigate any concerns?

20. The NYISO Tariff has not yet expanded to include the market terms and protocols surrounding offshore wind power flows via an offshore grid to another NYISO Zone or market through separate agreements between states or RTOs.
    a. How might the promulgation of such terms and protocols be valuable to OSW Generators?
    b. What specific terms would you recommend the NYISO consider in developing the Tariff to help OSW Generators consider the potential benefits of offshore network integration?
    c. What risk premia are currently attributed to project pricing with Mesh-Ready designs for want of clarity in the Tariff?

Contractual Resiliency

21. Project-on-Project risk between the NYC PPTN Transmission Developer's delivery of its facilities and the NY6 OSW Generation Only Projects is acknowledged to have important implications with respect to project financing and supply chain contracting. Please explain your primary concerns regarding such challenges (cost, terms, equipment warranties) and specific measures that NYSERDA could consider to help mitigate such challenges and provide a cost-effective approach for "Generation Only" projects integrating into the NYC PPTN Transmission Project.

22. Risks associated with the cost and availability of capital have been referenced as a consistent challenge for the renewable energy and offshore wind industries. How would the proposed reduction in scope of NY6 OSW Generation Only Projects alleviate such constraints (versus an integrated radial project)? In particular, how does the reduction in capital need support:
    a. The reduction in cost of capital and overall risk assessment of the project from the perspective of the project sponsors?
    b. Availability of Project Finance and risk assessment from the perspective of project finance?

23. Conversely, how does the potential dislocation in project readiness between the NYC PPTN Transmission Project and the NY6 OSW Generation Only Project impact capital cost and availability of capital?

24. Acknowledging the challenges of OREC PSA contract resiliency in light of long-duration development cycles and changing market conditions, are there specific measures that you would like NYSERDA to consider in improving the contractual resiliency of its PSA?

    As in the previous question, how does project-on-project risk between the NYC PPTN Transmission Developer's delivery of its facilities and the NY6 OSW Generation Only Project delivery affect the contract resiliency of the OREC PSA? Are there specific measures that you would like NYSERDA to consider in improving the contractual resiliency of its PSA specifically for NY6?

V. General Conditions

The information gathered by NYSERDA will be advisory only and is not binding on NYSERDA or any other state agency, office, commission, or public authority. Responses will become the property of NYSERDA. Any actions recommended by NYSERDA will be subject to all applicable laws, including procedural, regulatory and environmental review requirements.

This RFI is neither a contract offer, nor a request for proposals and does not commit NYSERDA to award a contract, pay any costs incurred in preparing a response, or to procure or contract for services or supplies. Respondents are encouraged to respond to this RFI; however, failure to submit a response will not impact a respondent's ability to respond to any future competitive solicitation process or influence the selection of a proposer going forward or affect its rights and obligations under any applicable laws or in any legal proceeding. NYSERDA reserves the right to discontinue or modify the RFI process at any time, and makes no commitments, implied or otherwise, that this process will result in a business transaction or negotiation with one or more respondents. All costs associated with responding to this RFI will be solely at respondents' expense.

Appendix A: Transmission Experiences in European Markets
Prepared by Power Advisory LLC

Power Advisory LLC was engaged by NYSERDA to prepare a summary of approaches in select European markets where a third party other than the offshore wind developer is responsible for the delivery and/or ownership and operation of certain offshore transmission infrastructure. This summary aims to provide a brief synopsis of the approaches used in such markets to mitigate and allocate the project-on-project risk associated with independent transmission development for offshore wind. The actors, market structures and regulatory framework differ between New York and Europe, and the European experience is presented solely to provide information and context on approaches taken in other markets that have pursued development of offshore wind transmission separate from offshore wind generation.

In European markets, specific milestones and compensation scales are designed to align the Transmission System Operator ("TSO") and Offshore Wind Farm ("OWF") developer programs with compensation measures reflective of the stage of development (i.e., compensation for delays encountered before construction starts may be significantly lower than the compensation required at or during the construction or commissioning phase).

Grid Risk - International Context

The European Commission's 2020 report ***'Recommendations for an integrated framework for the financing of joint (hybrid) offshore wind projects'*** written by Guidehouse and Sweco[13], recommends that in a model under which the offshore TSO is responsible for offshore transmission assets, an appropriate penalty scheme should be included for transmission asset unavailability.

According to the World Bank (September 2021)[14], "in selecting a model for building, ownership and operation of export systems, it is important to consider which party can best manage each role. Governments should only proceed with a state-build model when they are confident their delegated authorities can deliver offshore transmission assets in a timely manner for the new industry. In any case, a robust compensation mechanism to cover delays is required. This is due to the high cost associated with any delays to transmission network upgrades or grid connection."

There are various approaches for the development of offshore wind evident across Europe and a summary of the approaches to allocating site development responsibility undertaken in the UK, Netherlands, Germany, Belgium and Ireland is shown in Table A1 below:

[13] https://op.europa.eu/en/publication-detail/-/publication/471067d1-294d-11eb-9d7e-01aa75ed71a1/language-en
[14] https://documents1.worldbank.org/curated/en/343861632842395836/pdf/Key-Factors-for-Successful-Development-of-Offshore-Wind-in-Emerging-Markets.pdf

Table A1: Summary of European Offshore Wind Development Models

Country	Zone Identification	Site Selection	Site Investigation	Consenting/ Permitting	Grid Design
UK (Fixed Bottom)	Crown Estate	Developer	Developer	Developer	Developer
UK (Floating)	Crown Estate	Crown Estate	Developer	Developer	TSO
Ireland	Government	Government	Developer	Developer	TSO
Germany	Government	Government	Government	Developer	TSO
Netherlands	Government	Government	Government	Government	TSO
Belgium	Government	Government	Government	Government	TSO

As noted in an (IEA RETD) report '***Comparative Analysis of International Offshore Wind Energy Development*** (March 2017)[15]' suitable liability clauses need to be in place to reduce the risk profile for wind farm developers and transmission operators. Where the TSO leads and controls the development and construction of the transmission infrastructure, there is higher risk to the developer that the grid assets are not built on time, leading to lost revenue.

German example 2012-2014

In the early buildout of grid scale offshore wind in Germany, TenneT GmbH (TenneT), the German TSO, underestimated the challenges of completing the offshore grid. TenneT was responsible for providing an offshore wind developer with an offshore connection to the transmission grid. This required significant alignment between the generation and transmission projects. Technical issues between the two parties led to prolonged grid delays and to compensation payments that were ultimately borne by German consumers. Timing delays in grid connection, 13 months on average per project, led to a compensation of lost revenues to the offshore wind developers, paid by an additional surcharge (*"Offshore-Haftungsumlage"*) to consumers. These additional surcharges cost more than €1 billion for the eight existing offshore wind projects finished by the end of 2014, which were passed on to the German rate payers[16]. Under new regulations, the TSO must compensate affected offshore wind farm investors both in the event of delays in the grid connection beyond the binding connection date, and in the event of longer disruptions due to operation-related maintenance work. As further detailed below, compensation is limited to 90% of the lost remuneration.

A report in 2021 by Herbert Smith Freehills and Transmission Investment titled ***'Coordinated Offshore Transmission[17]',*** includes a simple example of the scale of compensation that could be required to keep the

[15] https://www.iims.org.uk/wp-content/uploads/2017/03/REWind-Offshore-report.pdf
[16] https://www.nj.gov/bpu/pdf/publicnotice/Transmission%20Study%20Report%2029Dec2020%202nd%20FINAL.pdf
[17] https://tinv.com/wp-content/uploads/2021/11/Coordinated-Offshore-Transmission.pdf

offshore wind project whole due to various grid construction delay durations. This is shown in Table A2 below. The report concludes that appropriate incentives would need to be retained for an offshore transmission owner to deliver on time.

Table A2: Delay Damages, Worked Example.
Assuming GRID CAPEX €1b, WF CAPEX €3b & revenue 10% of CAPEX (Freehills, 2021)

Transmission x Delay	OWF revenue loss	Compensation to 'keep OWF whole'	
	£m	£m	As % of Transmission Capex
4 months	100	90	9.0%
6 months	150	135	13.5%
12 months	300	270	27.0%
18 months	450	415	41.5%

This summary also explores how to accommodate the dependence of one project on another in their timely delivery of commercial operation, namely project-on-project construction delay risk:

- The key concern of the offshore wind generators is that a lack of suitable control over project development and the construction activities of the offshore transmission construction would lead to late delivery of the offshore transmission assets, and that this late delivery would not be sufficiently mitigated by suitable delay liquidated damages.
- If a generation project is not able to operate commercially due to the late delivery of the transmission project they depend upon, they will seek to be 'held whole' – to be unaffected commercially by a risk they have no control over.
- If the delivery of a transmission project is delayed, those responsible for the delay will expect to incur a commercial impact in the form of delay damage payments in keeping with the scale and complexity of the transmission project.
- As such, to incentivize uptake of alternatives to the generator build model, a comprehensive framework is necessary to mitigate the impact of the project delay risks associated with the generator relinquishing control over the construction of offshore transmission assets to a third-party transmission company.

Mitigation of Grid Risk relating to a Proactive Model

In a proactive planning model, the program for the identification and delivery of the offshore transmission infrastructure is on the critical path for offshore wind project completion. An offshore wind project developer suffers a significant financial impact if an offshore wind project is installed and then must wait for a grid connection before exporting power. There have been projects where the capital costs have been paid but revenue is delayed for many months until connection is complete. This is most commonly due to

delays in completing the export system or delays in upgrading the transmission network.

Additional details in relation to profiled jurisdictions are provided in summary form below, followed by Table A3 to provide additional detail on compensation mechanisms.

Germany

In Germany, under the grid connection agreement, the export system is financed, constructed and operated by one of Germany's TSOs. For projects located in the North Sea this is TenneT. For a project located in the Baltic Sea this is 50Hertz. The transmission network operator is liable for any damages or losses suffered by the developer if the network operator does not meet the arranged deadlines for providing the grid connection.

The TSO will publish a completion date by which it will complete the export system construction. The date can be amended up to 30 months before the published completion date, after which it becomes legally binding. The developer is compensated if the export system is not commissioned 90 days after the deadline (providing the wind farm is capable of being fully operational).

The developer is also compensated if the export system is not available after commissioning. For unplanned interruptions, the developer is compensated after ten consecutive days of downtime or 18 cumulative days throughout the calendar year, after which compensation is received for 90% of the lost production.

Denmark

Under the tender procedure, Energinet is liable to the generator if it fails to meet the deadline for grid connection set out in the tender specifications. Compensation will be calculated based off the damages and consequential losses incurred by the offshore wind developer.

Post energization, if there are defects in the transmission connection works, Energinet is required to compensate the generator for losses incurred due to transmission reduction.

Compensation applies for the first 25 years of the asset life.

Netherlands

For each offshore wind tender, TenneT has the responsibility for the construction of the offshore platform and transmission cables up to a guaranteed capacity level. Under the realisation agreement signed between TenneT and the offshore wind project, TenneT is required to deliver the connection on or before the date set in the contract. After the connection is built and delivered, the ongoing relationship of the parties is governed by the connection and transmission agreement. If TenneT does not deliver the transmission infrastructure within the agreed program, the offshore wind developer shall be compensated for 100% of their lost income in addition to any consequential damages that are assessed on a case-by-case basis.

Ireland

There are currently five offshore wind projects in Ireland that are under development and fall under a legacy regime whereby the developer is responsible for the construction of the offshore transmission infrastructure. Once constructed, the transmission infrastructure transfers over to the TSO, at cost, and is operated by the TSO. For upcoming auctions, Eirgrid, the TSO, shall be responsible for the development, permitting, construction and operations of the relevant offshore transmission infrastructure under the revised plan-led approach. Should Eirgrid not construct the required transmission infrastructure within 90 days of the date specified in the grid connection agreement, the developer shall be entitled to compensation based on 100% of their CfD strike price.

Compensation will also be payable to the offshore wind project by the TSO during the operational phase where the TSO cannot maintain the transmission infrastructure to a specified, contracted availability.

Belgium

In Belgium, the transmission system operator (Elia) is responsible for providing the required transmission infrastructure. Since May 2023, Elia has sought to connect multiple projects simultaneously into an energy island where approximately 3.5GW of offshore wind projects will connect to before the power is brought onshore.

If Elia do not provide the necessary infrastructure as per the grid connection agreements with the offshore wind projects, Elia must provide compensation for 90-100% of the LCOE per MWh which could not be exported due to the delay caused by the Elia in connecting the project.

France

Delivery of the required offshore wind transmission infrastructure by RTE must be completed by the date specified in the relevant offshore tender. Where the generator has been selected through a competitive tender process, RTE incurs the transmission infrastructure costs corresponding to the specifications set out in the tender, and the generator will bear the costs of any changes specifically requested by the generator, if any.

RTE is subsequently required to compensate the generator for any delays or any total or partial failure of the transmission system. The amount of such compensation due to the generator is capped at 90% of the generator's financial loss.

Table A3: Summary of Compensation Mechanisms for Profiled Jurisdictions

Country TSO	Compensation for Increases in Capex or Devex	Compensation for Lost Revenues
Germany TenneT Gmbh / 50 Hertz	No compensation.	Compensation is based on the anticipated generation capacity of the project, supported by wind measurement data. If an offtake agreement is secured, compensation is based on the average offshore wind capture price minus 0.4c/kWh. For market projects, compensation is based on the average offshore wind capture price.
Denmark Energinet	May be fully compensated.	Compensation is based on the anticipated generation capacity of the project, supported by wind measurement data. If an offtake agreement is secured, compensation is tied to the agreement price. For market projects, compensation is tied to market pricing and is adjusted to site- specific offshore wind prices.
Netherlands TenneT	Full compensation with supporting evidence of asset readiness prior to completion and cost overruns	Compensation is based on the anticipated generation capacity of the project, supported by wind measurement data. If an offtake agreement is secured, compensation is tied to the agreement price. For market projects, compensation is tied to market pricing and is adjusted to site specific offshore wind prices.
Ireland Eirgrid	No compensation.	Compensation is based on the installed capacity of the project and a pre-determined 45% capacity factor. Compensation is 100% of the Contracts for Difference price.
Belgium Elia	May be fully compensated upon Commission review of additional costs incurred.	Compensation is based on the Levelized Cost of Energy (LCOE) of the project, usually 90% of LCOE. Additional compensation is provided if delay due to intentional TSO error (up to 100% LCOE) or if delay exceeds 12 months (compensation determined on a project-by-project basis).
France RTE	No compensation.	Compensation is based on the anticipated generation capacity of the project, supported by wind measurement data. Compensation is 90% of lost revenues.