Sunrise Wind Environmental and Fisheries Mitigation Plans
Fisheries Technical Working Group Meeting Summary

Thursday, November 4, 2021 from 2:00 pm to 4:00 pm
Virtual Meeting

Background

This meeting summary describes key discussion points and action items from the Fisheries Technical Working Group (F-TWG) virtual meeting, which was held on Thursday, November 4th, 2021 through a virtual meeting platform.

Goals for the meeting included:

- Provide project status update on the Sunrise Wind Project Environmental Mitigation Plan (EMP) and Fisheries Mitigation Plan, including updates on BOEM NOI, project details, surveys, and others.
- Review planned cooling water intake system for Offshore Converter Station.
- Review comments and next steps on Fisheries Mitigation Plan and Benthic Monitoring Plan (BMP).
- Review other comments related to Fisheries Mitigation Plan including Data Sharing, Developer Coordination, and others.
- Identify format and timeline for future F-TWG meetings with Sunrise Wind.

There were forty-five attendees present on the Zoom meeting/conference line, including F-TWG members, the Sunrise Wind Project Team, and staff from NYSERDA, Tetra Tech, and the Consensus Building Institute (CBI) providing technical, facilitation, and logistics support.

This summary is organized to align with the structure of the meeting agenda. Opinions below are not attributed to specific or F-TWG members. This summary identifies areas of agreement as well as the different perspectives offered during meeting presentations and discussions.

Project Status Updates

The Sunrise Wind Project Team presented on the following topics (slides are available on the E-TWG and F-TWG websites):

- Project Updates (Since 8/17/2021 Meeting)
    - Design layout revised, now up to 1,122 MW (with up to 102, 11 MW Wind Turbine Generators (WTGs) – previous design included 123 WTGs)
- Permitting Overview and Status (since 8/17/2021 Meeting)
    - NOI Issued August 31, 2021
    - COP posted on BOEM website
    - Update/Supplemental filings planned for October/November 2021
    - DEIS: October 2022
    - Other Federal Permit Applications to be filed in 2021 and 2022
    - Schedule Posted on FAST-41 Dashboard
    - NPS: ROW, Temp Construction submitted September 2021
    - EPA NPDES 316(b) – December 2021 (Draft Permit Public Notice – August 2022)

- NMFS ITA – May 2022 (Public Notice – June 2022)
- EPA: OCS Air Permit – October 2022
- USACE 404/10/408 – August 2022 (Public Notice – October 2022 with DEIS)

Sunrise Wind Presentations (Sunrise Wind Project Team): Offshore Convertor Station Cooling Water Intake System

Sunrise Wind offshore project components include an offshore AC-to-DC converter station that will require a once-through cooling water intake structure (CWIS). This provides a more efficient electrical design that reduces losses, reduces project infrastructure, and won't require a booster station. The CWIS is expected to have an average intake flow (AIF) rate of 4.0 million gallons per day (MGD) with a maximum design intake flow (DIF) of 8.1 MGD (revised from the previous estimated max of 12 million gallons per day), and an intake velocity of < 0.5 feet per second (fps). The EPA considers this intake velocity the best technology available to minimize impingement impacts. The design calls for a once-through cooling system due to closed-cycle cooling not being a feasible option offshore and unavailable freshwater make-up volumes needed for cooling in this offshore environment. Concerns were expressed regarding the 500-micron mesh incorporated in the intake design as well as the backwash/cleaning process, frequency, and other specifications. The Sunrise Wind Project Team is currently consulting with EPA, NMFS, and BOEM for CWIS permitting requirements and to minimize entrainment impacts to fish eggs and larvae. TWG stakeholders request more information on CWIS design from the Project Team as a core action item following this meeting, including CWIS location/configuration, hydraulic zone of influence, entrainment impacts, and thermal impacts. An action item was proposed to expand the overview presentation with additional details or graphics to elucidate modeling, extent of impacts, and minimization efforts of the dump caisson and mixing zone. Sunrise is the first project in the United States to utilize AC-to-DC conversion, so extra consideration is warranted.

Review and Discussion of Comments

Questions and comments associated with the Cooling System were shared by TWG stakeholders during the discussion and through the Zoom meeting chat window:

- Is the discharge a single pipe or a diffused pipe?
- What is the approximate temperature increase (delta) of the discharge – at the point of discharge, and at the edge of the mixing zone?
- How far from the discharge is the increase in temperature not detected?
- What are the modeled temperatures for both the ambient temperature and mixing zone?
- How are you going to keep the intake pipes clear of biofouling on the inside?
- How is the converter station powered?
- Are cooling towers used in onshore power plants to reduce discharge temperatures to ambient levels?
- What size mesh would be on the screen for the intake pipe?
- Is a closed saltwater cooling system feasible?
- Can you describe the mixing zone?

- Does the modeling take into account the overall temperature or is it based on seasonal temperatures?
- How does the backwash system/process work?
- What is the discharge velocity of the effluent pipe?
- Has the fine mesh system been used elsewhere? If so, how is the performance and who is the manufacturer of the mesh?
- Will there be an exclusionary area around the platform associated with the intake/discharge?
- What is the separation distance of the intake from scour protection?

Review and Discussion of Other Comments Related to Fisheries Mitigation Plan

F-TWG stakeholders discussed the proposed goal for an online portal or clearinghouse for data sharing. Fisheries stakeholders expressed support for progress being made but expressed concerns with difficulty in keeping up with implementation and availability/opportunities to provide comments on the plans. Fisheries stakeholders asked about what is preventing developer(s) from sharing the same info with fishing industry that is shared with NJDEP, NJBPU, and others. Fisheries stakeholders emphasized size of role RI plays and requested complete review before next round of comments. Since monitoring surveys are starting now, a system for data sharing will need to be prepared and access will need to be provided to stakeholders.

Proposed Style and Timeline for Future Reviews and Meetings

NYSERDA is working to gather additional comments, requests, and next steps from direct communication and follow-up with fishing sector participants and members in order update the mitigation process and incorporate feedback received into mitigation plans. Several Fisheries Mitigation Plan discussion items and themes from the meetings that are currently omitted from the mitigation plan (including data transparency) will be added to the mitigation plan. It was noted that since a data transparency report is included now, additional deliverables will become requirements, (i.e., stakeholders currently submit reports (and not data) to BOEM), but if data is requested, then this must be provided.

Action Items/Next Steps

The following key next steps resulted from the meeting:

- Responses to written comments on Fisheries Mitigation Plan and (draft) fisheries and benthic survey plans will be made available for review by the end of November.
    - NYSERDA requests questions and feedback from TWG members be sent to Kate.
- Developer to provide names of the existing German projects with existing cooling water intake system for DC power conversion to be provided.
- Provide explanation for strikethrough-formatted bullets listing specific surveys from pg. 21 of redline PDF version (item E-11).
- Developer to expand overview presentation of cooling water intake system with additional details or graphics to elucidate modeling, extent of impacts, and minimization efforts of “dump caisson”, thermal mixing zone. Verify manufacturer of 500-micron mesh.

- Expand overview presentation of Cooling System with additional details or graphics to elucidate modeling, extent of impacts, minimization efforts of dump caisson and mixing zone. Verify manufacturer of 500-micron mesh.

Appendix A: Meeting Agenda

Sunrise Wind Environmental and Fisheries Mitigation Plans
Fisheries Technical Working Group Meeting

Virtual Meeting
To register, use the following link: https://us06web.zoom.us/j/83114209600
You can also call-in: +1 929 205 6099 US (New York)
Meeting ID: 831 1420 9600

November 4, 2021 | 2-4 pm

Goals for Meetings

- Review and discuss comments on the Sunrise Wind Fisheries Mitigation Plan
- Solicit input from the F-TWG on related topics and processes
- Adhere to our ground rules for an effective meeting:
  - Stay on track
  - Let others speak
  - Be respectful
  - Focus on the substance not the people

Agenda

1:45 **Lines Open**

1:00 **Welcome, Listing of Participants, Orientation to Zoom, and Ground Rules**
- Review meeting purpose and Ground Rules for presenters and attendees

2:05 **Project Status Updates**
- Updates on BOEM NOI, Project Details, Surveys

2:15 **Sunrise Wind Presentation (Sunrise Wind Project Team) of Cooling System for Offshore Converter Station**

2:45 **Review Comments**
- Review comments on Fisheries and Benthic Monitoring Plan

- Review next steps

3:15 **Review Other Fisheries Mitigation Plan Themed Comments**

- Data Sharing, Developer Coordination, etc.

3:45 **Proposed Style and Timeline for Future Reviews and Meetings**

3:55 **Next Steps and Adjourn**