

## FAB Issue: BOEM Recommendations – Post Construction Adjustment Period

BOEM<sup>1</sup> recommends that the developer consider at a minimum, the following payment structure during the first 5 years of project operations (post construction):

- 100% of revenue exposure during year one
- 80% of revenue exposure during year two
- 70% of revenue exposure during year three
- 60% of revenue exposure during year four
- 50% of revenue exposure during year five

For clarification; according to Kirkpatrick et al. (2017), “Exposure is defined as the *potential* for an impact from WEA development.” Therefore, when we refer to the BOEM recommendations, we are specifically referencing the overseeing agency’s mitigation recommendation to provide at a minimum, all or a portion of the potential impact to the fisheries over the five-year post construction period for all fishing sectors of the mitigation package (commercial, for-hire/charter, recreational). The current proposal from WHOI does not include these BOEM-recommended (minimum) funds for the adjustment period.

WHOI has responded that this will be considered, but that they believe because it comes from a DRAFT guidance document, that it should not be considered BOEM’s final recommendation. The developer included the BOEM recommended mitigation in the Revolution Project, yet now suggests that this should not set precedent for mitigation. FAB and FAB experts disagree Orsted’s suggestion, for several reasons:

1. The guidance is clearly stated and is/should now be considered the best available recommendation from the appropriate government agencies (NOAA Fisheries provided consultation).
2. BOEM carefully considered these recommendations to provide consistency between projects. This is made clear in BOEM’s overview to the guidance for mitigation as it states: *BOEM must consider potential impacts and mitigation measures on a project-by-project basis. While such an approach ensures an evaluation based upon the unique conditions affecting a project, it also creates risk for inconsistency across both projects and regions. **BOEM and other regulators developed this guidance to reduce the likelihood of inconsistencies in compensatory mitigation that could not be explained by unique, local conditions.***<sup>2</sup>
3. Moreover, the BOEM website titled “Reducing or Avoiding Impacts of Offshore Wind Energy on Fisheries” states specifically that the draft mitigation guidance was shared with the public for review (closed on Aug. 22, 2022), and that the *guidelines developed may be updated periodically*

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<sup>1</sup> BOEM 2022a. Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf Pursuant to 30 CFR Part 585. Draft Published June 23, 2022.

<sup>2</sup> BOEM 2022b. Overview – Guidance for Mitigating Impacts to Commercial and Recreational Fisheries from Offshore Wind Energy Development. Available at: <https://www.boem.gov/renewable-energy/reducing-or-avoiding-impacts-offshore-wind-energy-fisheries>

*based on feedback and evaluation by BOEM staff.*<sup>3</sup> Orsted submitted feedback disagreeing with BOEM's recommended step-down approach over the 5-year adjustment period, citing the WHOI analysis for South Fork Wind and the assumption that during wind farm operations commercial landings would only be reduced by 0 – 5% as an appropriate alternative.<sup>4</sup> Now, after one year to review these comments, BOEM has not updated or adjusted their guidelines despite having reviewed Orsted's comments; suggesting that:

- a. The draft guidelines stand as the best available information, and
  - b. BOEM, like the FAB and their experts, do not agree that the WHOI analysis is justified, as it is based on the footprint of the windfarm components (i.e., turbines, cables, and power converter) and assumes heterogenous revenue value across the entire WLA. This does not account for the multitude of variables that will impact the fisheries such as safety concerns, access to preferred fishing grounds, historical fishing practices, species movement patterns, alteration of fishing ground, etc.
4. The WHOI analysis relies on unknowns and uncertainties to argue for what is an underestimate of impacts from Sunrise. This is flawed logic and is inconsistent with CRMC's enforceable policies.

CRMC's enforceable policy 560.2. states that "Where there are potential impacts associated with proposed projects, the need for mitigation shall be presumed. Negotiation of mitigation agreements shall be a necessary condition of any approval or permit of a project by the Council."

The impacts from Sunrise are considerable and certain, and yet it is the magnitude of those impacts that FAB Experts argue that the BOEM recommendations were specifically developed as they were to address the certainty of impacts and the unknown magnitude of those impacts. This argument is backed by a few sources that summarize the true effects that wind farms have on fisheries. However, a lack of multiple studies does not translate to a **lack** of impacts, especially considering size of the Sunrise project and the and aggregation of several similar projects directly adjacent to Sunrise (i.e., South Fork, Revolution, etc.), both of which are unprecedented to date.

There is a comprehensive study of OSW in the Irish Sea has proven that fishers significantly adjusted their fishing practices in a variety of ways in response to wind farms.<sup>5</sup> The results of this study showed that:

- a. Many fishers specifically have chosen to avoid their previous fishing grounds inside wind farms altogether, due to safety concerns related to snagging their gear on cables and other related obstacles, and risks of collision with turbines should there be vessel breakdowns or other problems while in the wind farm.<sup>6</sup>

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<sup>3</sup> <https://www.boem.gov/renewable-energy/reducing-or-avoiding-impacts-offshore-wind-energy-fisheries>

<sup>4</sup> Orsted 2022. Comments from Orsted Wind Power North America LLC on Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf Pursuant to 30 CFR Part 585. Available at <https://www.regulations.gov/docket/BOEM-2022-0033/comments>

<sup>5</sup> Gray, M., Stromberg, P-L., Rodmell, D. 2016. 'Changes to fishing practices around the UK as a result of the development of offshore windfarms – Phase 1 (Revised).' The Crown Estate, 121 pages. ISBN: 978-1-906410-64-3

<sup>6</sup> Ibid

- b. Even after 2+ years of wind farm operations, 79% of fishers continued to avoid fishing inside the wind farm area, following the 100% reduction of fishing effort during the construction phase.
- c. 20-30% of fishers reported that they changed their fishing gear, target species, and number of crew as a result of the wind farms

With near certainty, similar results will impact the Rhode Island commercial fishing fleet, as fishers have said that it is unlikely that they will be able to fish inside an operational windfarm due to the potential for overcrowding,<sup>7</sup> and FAB members representing both fixed and mobile gear sectors have stated that they will not fish inside the operational wind farms due to similar safety concerns.<sup>8</sup>

Therefore, regardless of the spacing between wind turbines, the Sunrise wind farm will have a **significant impact** on the fisheries. Identifying new fishing grounds and updating fishing practices takes time and money; emphasizing BOEM's chosen term for this "adjustment period". Furthermore, the displacement of fishing activity cannot simply be absorbed by alternative fishing grounds, especially amid the cumulative footprint of multiple wind farms. This spatial displacement can also lead to compounded effects where effort has shifted such as, increase conflict between different gear sectors (i.e., mobile v. static gear), additional fuel consumption, reduced CPUE and the associated increased effort to maintain catch levels.<sup>9</sup>

Uncertainties don't only come in the change in fishing behavior and location, but also in changes to the harvested resources. NOAA has clearly stated that the wind farm in the Revolution area will cause **significant adverse impacts** to the EFH in the area, with a major focus on the southern New England cod stocks. The same will be for the Sunrise project. Additionally, the uncertainties related to impacts, likely cascading impacts, from the DC power converter and associated cooling tower is still very unclear. EMFs impact species, noise impacts species, structure impacts species, wind turbines change hydrodynamic patterns which will in turn effect spawning transport and settlement. All of these impacts are real, but the level to which they effect the fisheries and resources are unknown and their cumulative effects can be massive. In a SMALL WAY, this can be accounted for with the 5-year adjustment period plan recommended by BOEM.

Other uncertainties will come with the deleterious effects the Sunrise wind farm will have on NOAA Fisheries stock assessment surveys that will result in discontinuation of decades-old series of data collection and modelling used to understand status of fish stocks and appropriate harvest levels. Data breaks in these time-series causes scientific uncertainty and inappropriate reliance on previous years' trends and commercial harvest data which will most often lead to harvest limits set too low (precautionary); posing immediate undue economic loss. This uncertainty can also cause Harvest limits set too high, causing an initial economic spike, followed by a crash due to overharvesting. Again, another example of where the BOEM recommendations for the adjustment period payment schedule can mitigate for these impacts.

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<sup>7</sup> RIDEM, 2016. Rhode Island Stakeholder Concerns Regarding the New York Wind Energy Area. July 22, 2016.

<sup>8</sup> RI FAB, pers. comm.

<sup>9</sup> ABPmer, (2022). Spatial Squeeze in Fisheries, Final Report, ABPmer Report No. R.3900. A report produced by ABPmer for NFFO & SFF, June 2022.

When applied to the overall revenue exposure of the Sunrise WLA, with a 3% discount rate, the BOEM recommendations for mitigation during the 5-year adjustment period equates to (in 2023\$):

- Commercial Fisheries: **\$9,572,397**
- For Hire/Charter Fisheries: **\$3,839,692**

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