

Environmental Studies Program: Studies Development Plan | FY 2023–2024

Title	Gulf of Maine Socioeconomic Impacts of OCS Wind Development on Fishing (AT-23-01)
Administered by	Office of Renewable Energy Programs
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Procurement Type(s)	Interagency Agreement
Conducting Organization(s)	NOAA
Total BOEM Cost	TBD
Performance Period	FY 2023–2025
Final Report Due	TBD
Date Revised	April 1, 2022
PICOC Summary	
<i><u>Problem</u></i>	The socioeconomic impact of offshore wind on fishing is a concern.
<i><u>Intervention</u></i>	The study will collate information about fishing activity and estimate the socioeconomic impact from offshore wind development.
<i><u>Comparison</u></i>	The study will provide baseline information about fishing activity.
<i><u>Outcome</u></i>	This study will provide information about the socioeconomic impacts of future offshore wind development on commercial and recreational fisheries in the Gulf of Maine.
<i><u>Context</u></i>	Gulf of Maine

BOEM Information Need(s): Offshore wind (OSW) development will have impacts on commercial and recreational fishing and shoreside dependents in the Gulf of Maine; potential socioeconomic impacts from the presence of structures in the offshore environment is of primary concern. Results of the study will be used by BOEM in environmental assessments of the potential impacts of OSW, for stakeholder engagement, and to inform potential mitigation measures.

Background: The Atlantic Outer Continental Shelf (OCS) Region extends from the Canadian border to the tip of Florida. The diversity of fisheries resources is large and the manner of fishing is varied. In New England, offshore banks and major inshore marshes and estuaries are important habitats and fishing areas. Fishing along the Atlantic seaboard supports direct and indirect food sales, industrial processing, and provides valuable recreational experiences. In the Gulf of Maine there are approximately 18,000 licensed fishermen, seafood dealers, processors, aquaculture operators and charter fishing operators that make up region’s seafood industry, which nets an estimated \$788.2 million a year in revenues. Additionally, fishermen from along the Atlantic seaboard fish on George’s Bank and other areas within the Gulf of Maine.

BOEM is pursuing leasing for renewable energy development in the Gulf of Maine. Key challenges relative to Atlantic fisheries are the minimization of space-use conflicts, analysis of artificial reef effects, avoidance of habitat alteration, and reduction of noise impacts from pile driving. Offshore wind facilities

could be de facto protected areas due to some fishers' avoidance of wind facilities and thus may benefit recreational fishers or the fishery resource itself due to that exclusion. For the Gulf of Maine, the most noteworthy knowledge gap related to fisheries is that regarding potential space-use conflicts for commercial fishing, which may result in lost revenue for the industry. The potential socioeconomic impact was addressed by BOEM for the Mid-Atlantic (Kirkpatrick et al. 2017), but this study did not include the Gulf of Maine.

This study will assess the socioeconomic impacts to both commercial and recreational fishers from potential OSW development in the Gulf of Maine. Impacts will be assessed primarily through revenue exposure, defined as the potential for an impact, in this case from offshore wind. Components of revenue exposure for this study could include total revenue for a wind energy area, commercial revenue by ports, commercial revenue by fisheries management plan, commercial revenue by permit and gear type, total recreational expenditures, and/or recreational expenditures by ports. These impacts may be negative to commercial fishers due to loss of fishing revenue, extending to shoreside dependents such as seafood processors and bait dealers, or may be positive for recreational fishers and their shoreside dependents, as has been observed at Block Island Wind Farm.

Objectives: The objective of this study is to assess the potential socioeconomic burdens and/or benefits from OSW development in the Gulf of Maine on commercial and recreational fishing. Offshore wind facility assessments not only must evaluate impacts on essential fish habitat and fish stocks, but also must evaluate potential displacement/fishing effort changes and socioeconomic impacts from OSW site development.

Methods: The primary methods for this study would be modeled after Kirkpatrick et al. (2017), although it is expected that some analyses would differ, as certain components of that study were exploratory and improved statistical methods may be warranted for the proposed study. Methods would include exposure and impact analyses. Exposure analysis is a quantitative assessment that would identify the likelihood of individuals and groups of being affected by OSW development. Impact analysis would estimate the magnitude and gain/loss due to exposure. It is anticipated, based on availability and quality of data, that impacts to commercial fisheries and their shoreside dependents would be analyzed quantitatively while impacts to recreational fisheries and their shoreside dependents would be analyzed qualitatively.

Specific Research Question(s): How will offshore wind development in the Gulf of Maine impact commercial and recreational fishing industries?

Current Status: N/A

Publications Completed: N/A

Affiliated WWW Sites: N/A

References:

Kirkpatrick AJ, Benjamin S, DePiper GS, Murphy T, Steinback S, Demarest C. 2017. Socioeconomic impact of Outer Continental Shelf wind energy development on fisheries in the U.S. Atlantic. Volume I—report narrative. Sterling (VA): U.S Department of the Interior, Bureau of Ocean Energy Management. 150 p. Report No.: OCS Study BOEM 2017-012.

Kirkpatrick AJ, Benjamin S, DePiper GS, Murphy T, Steinback S, Demarest C. 2017. Socioeconomic impact of Outer Continental Shelf wind energy development on fisheries in the U.S. Atlantic. Volume II—appendices. Sterling (VA): U.S Department of the Interior, Bureau of Ocean Energy Management. 191 p. Report No.: OCS Study BOEM 2017-012.