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Resident Perceptions of Local Offshore Wind Energy Development: Support Level and Intended Action in Coastal North and South Carolina

What We Did

The Bureau of Ocean Energy Management (BOEM) oversees the development of renewable energy resources on the Outer Continental Shelf. In response to BOEM's interest, we studied the perceptions of coastal residents in North and South Carolina regarding offshore wind energy development in their area. We documented the importance of local context by studying the influence of residents' attachment to place, their perception of impacts, and the role of distance (residents to shore) on their support or opposition to proposed local offshore wind energy development. We identified factors predictive of residents' 1) support level for offshore wind energy and 2) intention to engage in civic action to advance their position.

How We Did It

Researchers conducted a household survey (2018) in a coastal region adjacent to multiple offshore wind development areas. Residents 18 years of age and older were surveyed on their level of support for offshore wind development, past and future action, attachment to place, recreational activities, favorite places, and awareness level. They were also asked about the impacts such development could have on important quality of life items.

Why We Did It

Outside of official public engagement forums, preferences about offshore wind energy development generally remain unknown for members of the public. This research offers an approach for understanding what is important to communities, and how differing values and perceptions across communities can influence local receptiveness to proposed development.



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What We Found

Statistical modeling suggests that low awareness of local offshore wind energy development and high uncertainty of impacts from such development are predictive of support. While residents from households located closer to the shoreline are more likely to be opposed to local offshore wind energy development, more residents were supportive than opposed in this region of the coastal Carolinas. Unexpectedly, daytime views of the ocean does not predict support level. Perceived importance of marine mammal and sea turtle habitat drives opposition, while electricity affordability drives support for local offshore wind energy development.

Results also suggest that residents living further inland from the shoreline are less likely to intend future action related to offshore wind energy development than residents living closer to the shoreline. Residents who are opposed to local development efforts are most likely to intend future wind action, while those reporting a neutral position are least likely. However, the influence of support level on intention to act is affected by place attachment. Residents with a greater place attachment are more likely to intend future action, especially if they are opposed. Finally, more past action related to the potential for offshore wind energy development is a predictor of future action, but those who strongly support local efforts are less likely to intend future wind action.

This study was funded in part by the U.S. Department of the Interior, Bureau of Ocean Energy Management, through an Interagency Agreement No. M15PG00022 with the U.S. Department of Commerce, National Oceanic and Atmospheric Administration.

Goedeke, Theresa L., Sarah Ball Gonyo, Chloe S. Fleming, Jarrod L. Loerzel, Amy Freitag, and Chris Ellis. 2019. Resident Perceptions of Local Offshore Wind Energy Development: Support Level and Intended Action in Coastal North and South Carolina. Sterling (VA): US Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2019-054. 100 p.



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