

Open-source software can help find the right space for offshore wind turbines

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Offshore wind has significant potential to help the United States meet its growing energy needs, but the U.S. marine renewable energy industry has lagged behind Europe for decades.

Recent legislation has accelerated renewable [energy](#) development in U.S. waters, particularly along the East Coast, and though technological hurdles exist for industry expansion, an equally critical challenge is finding space for a growing number of turbines in an ocean crowded with fishing, marine transportation and recreational boating.

To help decision makers better understand tradeoffs from ocean policy, scientists need to provide explicit quantitative models of how ocean areas are currently used, and the possible benefits that could be gained by converting that location to [wind energy](#).

At this year's annual meeting of the American Association for the Advancement of Science, Robert Griffin, an economist with the Natural Capital Project at Stanford University, will present InVEST, an open source wind energy model that predicts energy production, wind energy value and other key metrics associated with offshore wind energy.

"This model is significant because it is an [open source software](#) tool that provides spatially explicit offshore wind energy information relevant to decision makers worldwide for integrated marine spatial planning," Griffin says.

Griffin will detail InVEST in a presentation titled "Modeling What Matters: Quantifying Tradeoffs for Energy, Transportation and Fishing." The presentation will take place on Friday, Feb. 15 at the Hynes Convention Center in Boston.

Provided by Stanford University

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