

UD study assesses ocean use off Delaware, Maryland and New Jersey coasts

March 20 2012, by Teresa Messmore



UD's Center for Carbon-Free Power Integration has issued a new report about ocean use, addressing viable places to locate offshore wind farms.

The Center for Carbon-Free Power Integration (CCPI) at the University of Delaware has issued a new report about ocean use off the coast of Delaware and parts of Maryland and New Jersey. The study addresses viable places to locate offshore wind farms, taking into account biological, ecological and other considerations. The report includes feedback from interested groups who attended a November 2011 workshop, as well as input from experts.

“This report demonstrates that the ocean is already active with ecological and human activity,” lead-author Alison Bates said. “It shows what government regulators ought to consider in planning for offshore wind development and the beginning of a way forward for offshore wind

developers and existing users to accommodate one another.”

Fishing, shipping, cable crossings and recreation are among the human activities already taking place in ocean waters that affect marine ecosystems. As [offshore wind farms](#) join that list, ocean users can anticipate and accommodate each other’s needs through marine spatial planning, a resource management approach to nature conservation.

Taking that track, UD researchers analyzed data from various sources on seabird activity, marine mammal and sea turtle migrations, wildlife habitat, potential wind speed, commercial shipping lanes, geologic features and fishing areas. They created maps relevant to each topic that can be integrated for future planning of ocean uses.

Areas in which offshore wind development is likely to highly conflict with existing uses are described, although areas that are specifically recommended for development are not identified. Co-author Kateryna Samoteskul indicated that this is “due to the early stage of the analysis and the need for additional stakeholder input prior to identifying the best sites for development.”

Co-author Jeremy Firestone added, “These results will aid the efforts of Delaware and neighboring states and direct initial proposals for locating new offshore wind projects.”

While NRG Bluewater Wind has postponed plans for an offshore wind development in Delaware waters for the near term, the company is still maintaining development rights and a similar project is feasible in the future. Federal and regional regulators could use the UD report to plan offshore wind sites with developers while balancing costs and a desire to minimize environmental impacts.

The report includes:

- Descriptions of marine spatial planning projects in Europe;
- Background on offshore wind projects in the United States;
- Synthesis of existing data and identification of data gaps;
- Maps on the distribution of whales, dolphins, sea turtles, corals and seabirds;
- Shipping routes and traffic volume adjacent to potential offshore wind farm sites;
- Maps of commercial and recreational fishing activity;
- Geologic features that should be considered when siting of wind farms; and
- Discussion of the transmission of wind-generated electricity back into the power grid.

More information: The full report is available for download in PDF format at this CCPI [link](#).

Provided by University of Delaware

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