Update: OCS Renewable Energy

Global Marine Renewable Energy Conference

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Acting Director
Minerals Management Service
The Minerals Management Service manages the ocean energy and mineral resources on the Outer Continental Shelf and Federal and Indian mineral revenues to enhance public and trust benefits, promote responsible use, and realize fair value.
New Directions

Announcement adopting a comprehensive approach to offshore energy development (February 10)

Secretarial Order 3285 establishing Energy & Climate Change Taskforce (March 11)
Offshore Wave

Greatest near-term potential: Pacific

Estimated Wave Power Potential by Region (EPRI)
Potential Offshore Current

*Greatest near-term potential: Florida*

- Recent estimates by Florida Atlantic University for the Gulf Stream Current range between **4 to 8 GW** (35 to 70 TWh/yr) annual average power. That could power between **3 to 7 million average U.S. homes.**

Sea Surface Temperatures Clearly Show the Gulf Stream Current (Source: NOAA)
Offshore Wind

Greatest near-term potential: Atlantic

This map shows the annual average wind power estimates at 50 meters above the surface of the United States. It is a combination of high resolution and low resolution datasets produced by NREL and other organizations. The data was screened to eliminate areas unlikely to be developed offshore due to land use or environmental issues. In many states, the wind resource on this map is visually enhanced to better show the distribution on ridge crests and other features.

Wind Power Classification

<table>
<thead>
<tr>
<th>Wind Power Class</th>
<th>Resource Potential</th>
<th>Wind Power Density at 50 m</th>
<th>Wind Speed at 50 m</th>
<th>Wind Speed at 50 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Fair</td>
<td>300 - 400 W/m²</td>
<td>6.4 - 7.0 m/s</td>
<td>14.3 - 15.7 mph</td>
</tr>
<tr>
<td>4</td>
<td>Good</td>
<td>400 - 500 W/m²</td>
<td>7.0 - 7.5 m/s</td>
<td>15.7 - 16.8 mph</td>
</tr>
<tr>
<td>5</td>
<td>Excellent</td>
<td>500 - 600 W/m²</td>
<td>7.5 - 8.0 m/s</td>
<td>16.8 - 17.9 mph</td>
</tr>
<tr>
<td>6</td>
<td>Outstanding</td>
<td>600 - 800 W/m²</td>
<td>8.0 - 8.9 m/s</td>
<td>17.9 - 19.7 mph</td>
</tr>
<tr>
<td>7</td>
<td>Superb</td>
<td>800 - 1600 W/m²</td>
<td>8.8 - 11.1 m/s</td>
<td>19.7 - 24.8 mph</td>
</tr>
</tbody>
</table>

* Wind speeds are based on a Weibull k value of 2.0
Current Status

• **DOI-FERC Memorandum of Understanding** covering jurisdiction for hydrokinetic energy on the OCS – signed April 9

• **MMS Final Rulemaking** undergoing final review

• **Interim Policy** -- Limited leasing covering resource data collection and technology testing activities
Looking Ahead

- Implement the Rule
- Issue Interim Policy leases
- Continue to work closely with State, local, and tribal governments
- Complete review of Cape Wind Project
- Identify challenges and baseline data needs using an adaptive management philosophy
- Continue education and outreach efforts
More Information...

On the Web at:

www.mms.gov/offshore/alternativeenergy

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