North Atlantic Right Whales and Offshore Wind Site Assessment & Characterization:

An Agreement for the Mid-Atlantic

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A collaborative effort

These proposed measures are the result of a collaborative effort between leading offshore wind developers and leading environmental NGOs with input from scientific experts.
One of the most endangered marine mammal species on the planet, with only about 500 individuals remaining.

Right whales have not recovered from whaling: mortalities from ship–strikes and entanglements, low reproductive rate, concern about noise and other stressors.

NMFS: “the loss of even a single reproductive female could jeopardize survival of the species”

Right whales pose one of the major conservation problems affecting east–coast offshore wind development: ship–strike risk, displacement, injury.
Goal: to develop mitigation measures that protect the North Atlantic right whale while facilitating offshore wind energy development in the mid-Atlantic WEAs

Scope:
- Site characterization and assessment phases
- Mid-Atlantic WEAs, including Virginia
- Special attention to moms and calves
Reducing coincidence of the species with the activity is the most effective means of mitigating impacts.

*Is it possible to separate site assessment and characterization activities from right whales?*
North Atlantic Right Whale Migration: Nov. - Apr.

- Active Leases - Wind
- Wind Planning Areas
- Shipping Lanes

*North Atlantic right whale route

Right whales sighted:
1  2-3  4+

*The North Atlantic right whale route for the mid-Atlantic was created by measuring the distance of whale sightings to shore during the time of migration through the region (Nov-Apr). An area covering one standard deviation from the mean distance was created to encompass 95% of whale sightings.

Data sources: Right Whale Consortium Database, 1762-2010
Projection: NAD 83 UTM 19 N

New England Aquarium
Protecting the blue planet
Compilation of visual survey data on right whale calving grounds: 1994–2010

Helps identify peak calving times

Chart: New England Aquarium
Reducing coincidence of the species with the activity is the most effective means of mitigating impacts.

*Is it possible to separate site assessment and characterization activities from right whales?*

*YES, to a significant degree, through seasonal management.*
Agreement: a workable solution

- **Solution**: minimize activities when right whales are most likely to be present and enhance mitigation at other times

- **Traffic light approach**
  - Green Period: May 1 – October 31
  - Yellow Period: March 22 – April 30; November 1 – 22
  - Red Period: November 23 – March 21
Agreement: a workable solution

Red Period    November 23 – March 21

- *Seasonal exclusion* of sub-bottom profiling & pile-driving for met towers (if applicable)
- Other site assessment and characterization activities, such as biological assessments, can take place
A 10-knot speed restriction applies to all vessels associated with site assessment and characterization activities, including survey vessels as well as support vessels, operating in and transiting to and from the Wind Energy Area.

Measure builds on NMFS’ existing ship-strike regulation, but applies to vessels of all lengths and throughout WEA and its approaches.

The speed limit reduces risk of vessel collision and of right whale mortality should a collision occur.
Yellow Period \hspace{1cm} \textit{March 22 – April 30 only}

- \textit{Aerial surveys} will be conducted on the south side of the pile-driving site to detect right whales as they approach the area.

- If any right whale is observed within the smaller of the 120dB isopleth or 30-kilometer radius around the south side of the source, the source must be shut down.

- This focused measure reduces the risk of displacement of mom-calf pairs into areas with higher ship-strike and predation risk.
### Agreement: a workable solution

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<th>Period</th>
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<td>Yellow Period</td>
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<tr>
<td>Green Period</td>
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- The agreement sets a minimum 500m *exclusion zone* (the distance originally required by BOEM) for all marine mammals and sea turtles around the sub-bottom profiler, with an exception for bow-riding dolphins.

- Developers field-test the size of the exclusion zone before sub-bottom profiling begins, with the exclusion zone enlarged if the 160-decibel isopleth extends beyond 500m from the source.

- Information from this test, known as *sound source validation*, will provide badly needed data on sub-bottom profilers and aid management in the future.
The agreement clarifies BOEM requirement as to the number of dedicated, NMFS–approved visual observers needed:

- A minimum of 4 observers (2 on/2 off) at each pile driving site
- A minimum of 2 observers (1 on/1 off) required at each sub-bottom profiling site
Advantages of the agreement:

- Reduces co-occurrence of right whales with development activities since right whale seasonality coincides largely with bad-weather months.
- Minimizes impacts especially on the most vulnerable right whale cohort: pregnant females and mom-calf pairs.
- Provides flexibility to developers.
- Removes a roadblock to development early on.
Thank you!

Questions?