## Windfarm Environmental Impact Avoidance – Regulatory Action Needed

Developing windfarms off the Delaware and Maryland beaches should not damage a natural gem that is the undisputed economic engine of the coastal towns. Inshore windfarms will industrialize the beach view and threaten endangered whales, endangered migrating birds, endangered migrating Monarch butterflies, and horseshoe crabs.

Moving the proposed windfarms further offshore is the environmentally responsible thing to do, given the design creep which has seen the height of the wind turbines more than double since first proposed in 2010. A corresponding distance offset is critical due to the height of the proposed turbines doubling. The Bureau of Ocean Energy Management (BOEM) as the regulator needs to swap Federal lands and move the proposed turbines 30 miles offshore, which is feasible and possible. The BEOM windfarm proposals will had a greater industrialization impact on Delaware and Maryland beaches than oil and gas drilling rig approvals due to the number of structures proposed.

## A growing number of windfarms have 30 to 27 mile offsets:

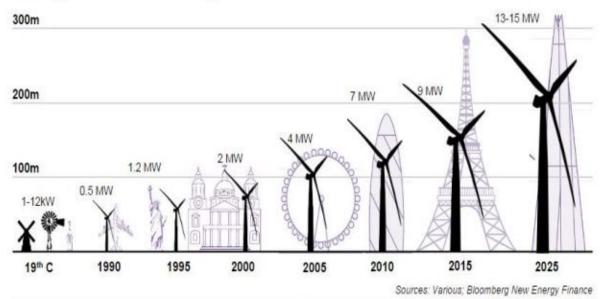
More than 30 miles offshore - Long Island New York State Sunrise windfarm

More than 27 miles offshore - North Carolina State Kitty Hawk windfarm

More than 27 miles offshore - Virginia State Coastal Virginia windfarm

Design Creep Associated with the Height of the Wind Turbines Necessitates a 30 Mile Offshore Offset

## Evolution of wind turbine heights and output



A new impartial Economic Impact Study is needed, which was not the case for the <u>2019 Environmental</u> <u>Impact Study</u> funded by <u>labor unions</u>, <u>utilities and special interest groups</u>. The 2019 Economic Impact Study did not even include Delaware, which bears the brunt of the coastal infringements and powerline landings.

Endangered species information requests are being made to the <u>Monarch Joint Venture</u>, which is a partnership of federal and state agencies, and non-governmental organizations that are working together

to support and coordinate efforts to protect the Monarch migration. I have personally witnessed thousands of Monarch butterflies use favorable winds and inshore waters as part of their annual migration off Delaware. <u>On 7/21/22 Monarch butterflies were declared an endangered species</u>.

An endangered species information request is being made to the National Audubon Society regarding <u>endangered migratory birds impacted by the windfarm proposals</u>. On June 15, 2022, Dr. Elizabeth Gray, CEO of the National Audubon Society, testified before the U.S. Senate Committee on Environment and Public Works urging funding of the <u>Delaware River Basin Conservation Reauthorization Act</u>, which would reauthorize conservation programs throughout the Delaware River Watershed that will be impacted by the proposed windfarms.

Endangered species information requests are being made to the Woods Hole Oceanographic Institution and Save the Whales regarding the environmental benefits of moving the windfarms further offshore.

BOEM Environmental Impact Studies are needed for the horseshoe crab. There are no studies on how the electromagnetic fields generated by the web of undersea cables associated with the windfarms will impact horseshoe crabs ability to navigate. Horseshoe crabs play a critical role in toxicity testing for vaccines, flu shots, injectable drugs and medical devices, which are all tested using horseshoe crab blood that primarily comes from the Delaware Bay. A vulnerable species information request is being made to the Ecological Research & Development Group.



## Half Scale Version of the Visual Industrialization Risk to the Delaware and Maryland Beaches

Orsted UK wind turbines that are almost half the size of the proposed Delaware and Maryland turbines.

RE: BOEM-2022-0025 US Wind and Orstead - Environmental Impact Statement DE & MD Comment Letters are needed. BOEM Federal Windfarm Permitting Dashboard

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Dr. David Bigger Marine Biologist Office of Renewable Energy Programs Bureau of Ocean Energy Management 45600 Woodland Road, VAM-OREP Sterling, Virginia 20166 david.bigger@boem.gov Following up with certified mail copy recommended, so your Comment Letter is officially recorded.

The US Wind and Orsted proposed windfarms call for 7 offshore substations in waters off Delaware and Maryland to convert the DC current to AC current, below is a windfarm substation. The industrialization proposed will damage a natural gem. The future of the Delaware and Maryland beaches depend on your Comment Letters.



Sincerely,

Niall H. O'Malley

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