Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Fwd: Offshore Wind Air Quality Permit US Wind

1 message

Carol Frazier <carol.frazier54@gmail.com> Fri, Jun 21, 2024 at 3:15 PM
To: "shannon.heafey@maryland.gov" <shannon.heafey@maryland.gov>

1 cross + 3 nails = 4 given.
God is good, always.

Carol Frazier

---------- Forwarded message ---------
From: **Carol Frazier** <carol.frazier54@gmail.com>
Date: Fri, Jun 21, 2024 at 2:46 PM
Subject: Offshore Wind Air Quality Permit US Wind
To: shannon.heafey@maryland.gov <shannon.heafey@maryland.gov>

I accidentally hit "send" earlier - this is the completed email.

Ms. Healey:

I was in attendance and commented at the Public Information Meeting in Ocean City on June 13th.

I have attended several other such meetings (and Congressional Hearings) in both Maryland and Delaware. I have educated myself on this issue and have written many letters to editors as well as columns for local papers.

One issue that has constantly amazed and concerned me is this:

You are the MARYLAND Dept. of the Environment, and, as such, you are paid by and work for the citizens and taxpayers of Maryland. Not Gov. Moore, not President Biden, not the EPA, and certainly not US Wind. Am I correct?

That said, I have a hard time understanding why the MARYLAND Dept. of the Environment, as well as BOEM and NOAA (Federal Agencies which are, again, paid by and responsible to American citizens and taxpayers), are rushing headlong into offshore wind farms, which, to my knowledge, have never been constructed in hurricane zones. In addition, US Wind has no experience to speak of in the construction of offshore wind farms. At least, no experience about which it can boast.

So, the Maryland coast, including Ocean City, Worcester County and Assategue Island, is being turned over to a novice. We are the guinea pig, so to speak.

Another issue that should be of great concern to the MARYLAND Dept. of the Environment, as well as the Governor, is that Offshore Wind Farms have never been constructed in hurricane zones. We saw just a few months ago that wind turbines do not stand up well to tornado-force winds, the speed of which can be less than hurricane winds, and are certainly of less duration.

The State of Maryland needs to call a halt to this activity until proper studies have been completed. It is simply wrong for the State of Maryland and the U.S. government to rely on assurances from an inexperienced foreign owned company.

Thank you for your attention.

Carol Frazier
64 Bramblewood Drive,
Ocean Pines, MD 21811
410-430-4456
carol.frazier54@gmail.com

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

OCMD Wind Project Public Comment

1 message

Chris Reese <chris@revolvesolutions.com> Sat, Jan 18, 2025 at 4:43 PM
To: "shannon.heafey@maryland.gov" <shannon.heafey@maryland.gov>

Good day.

I am writing to express my opposition to the wind farm off the coast of Ocean City, Maryland. I do not support the wind farm as I understand it today. Although I personally support alternative energy initiatives, I believe that the plan for the OCMD wind farm is detrimental to the environment and the economy of the region.

As a homeowner in Ocean City, I do not support the wind farm initiative.

Regards,

Chris Reese

703-517-7761

Maryland

Mario Cora -MDE- <mario.cora@maryland.gov>

Attn: Shannon Heafey - Delegate Hartman Written Comments - Notice of Scheduled Public Hearing for Maryland Offshore Wind Project

1 message

Hartman, Wayne Delegate <Wayne.Hartman@house.state.md.us> Wed, Jan 8, 2025 at 5:37 PM
To: Shannon Heafey -MDE- <shannon.heafey@maryland.gov>
Cc: Mario Cora <mario.cora@maryland.gov>, Suna Sariscak -MDE- <suna.sariscak@maryland.gov>

Good evening Ms. Heafey,

Please see the attached written comments from Delegate Hartman on the air quality permit applications from US Wind, Inc. for the Maryland Offshore Wind Project.

Let us know if you have any questions at all.

Respectfully,

Will Smith

Legislative Aide

Delegate Wayne Hartman

District 38C

Worcester & Wicomico Counties

6 Bladen Street Suite 213

Annapolis, MD. 21401

Annapolis Office 410-841-3356

Fax: 410-841-3098

Wayne.Hartman@house.state.md.us

From: Shannon Heafey -MDE- <shannon.heafey@maryland.gov>
Sent: Thursday, December 5, 2024 9:38 AM
To: Hartman, Wayne Delegate <Wayne.Hartman@house.state.md.us>
Cc: Mario Cora <mario.cora@maryland.gov>; Suna Sariscak -MDE- <suna.sariscak@maryland.gov>
Subject: Notice of Scheduled Public Hearing for Maryland Offshore Wind Project

Dear Delegate Hartman:

On behalf of Deputy Air Director Angelo Bianca, please find attached a letter and Notice of a Scheduled Public Hearing for the U.S. Wind Maryland Offshore Wind Project.

Regards,

Shannon Heafey

Shannon Heafey Public Participation Coordinator
Air Quality Permits Program, Air and Radiation Administration
Maryland Department of the Environment
1800 Washington Boulevard, Baltimore, Maryland 21230
shannon.heafey@maryland.gov
410-537-4433

MDE Air and Radiation Administration - US Wind Air Quality Permit Application - Delegate Hartman.pdf
295K

Wayne Hartman
Legislative District 38C
Worcester and Wicomico Counties

Chief Deputy Minority Whip

Ways and Means Committee

Subcommittees
Racing and Gaming
Revenues

The Maryland House of Delegates
6 Bladen Street, Room 213
Annapolis, Maryland 21401
410-841-3356 · 301-858-3356
800-492-7122 *Ext.* 3356
Fax 410-841-3273 · 301-858-3273
Wayne.Hartman@house.state.md.us

THE MARYLAND HOUSE OF DELEGATES
Annapolis, Maryland 21401

Ms. Shannon Heafey
Maryland Department of the Environment
Air and Radiation Administration
1800 Washington Boulevard
Baltimore, Maryland 21230

RE: ARA Premises No. 047-0248

January 6, 2025

Dear Ms. Heafey,

I am writing you to respectfully submit comments on the air quality permit applications submitted by US Wind, Inc. for the proposed Maryland Offshore Wind Project.

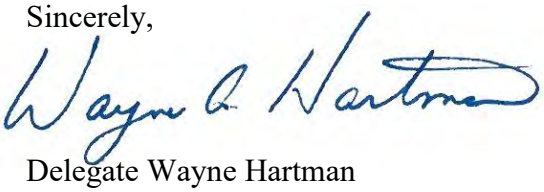
The implementation of offshore wind turbines continues to be a significant cause for concern to the residents and property owners of Ocean City and Worcester County, Maryland. I along with many others have consistently raised these concerns regarding the negative environmental, economic, and visual impacts that will come from the industrialization of the Atlantic Ocean. The development of offshore wind turbines will cause irreversible damage to our local ecosystems, interfere with the bio-sonar capabilities and migratory patterns of wildlife, and bring harm to our local fishing and tourism economies.

Local environments along Maryland's coastline, both in the ocean and the air, now face serious endangerment with the construction and maintenance of 121 offshore wind turbines. The approval of these air quality permits will allow US Wind to produce 41,673 tons of CO2 per year during their first three years of construction and operations. Within this same time frame, they will also be granted permission to discharge 616 tons of Nitrous Oxide per year which is equivalent to the amount emitted by 56,000 cars. Nitrous Oxide is known to contribute to smog and acid rain, which can eventually lead to elevated levels of nutrient pollution in our waterways and the emanation of algae blooms. Additionally, there is no certainty that the volume of clean energy generated by these turbines will offset the amount of carbon emissions produced during their construction and operations.

We as a State should not industrialize the Atlantic Ocean and diminish our air quality to collect wind energy. I firmly believe that we should explore other forms of technology to harvest clean energy to fuel our grid in ways that are economically and environmentally sound. For all of these reasons, I remain strongly opposed to any offshore wind development in the Atlantic Ocean.

Thank you for your time and consideration. Please do not hesitate to contact me at wayne.hartman@house.state.md.us or call 410-841-3356 if you would like to discuss this further.

Sincerely,



Delegate Wayne Hartman
District 38C
Worcester & Wicomico Counties

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Air Quality Permit for US Wind

1 message

Dianna Harris <diannaharris@me.com> Wed, Jun 19, 2024 at 4:35 PM
To: Shannon Heafey -Mde- <shannon.heafey@maryland.gov>

Ms. Heafey,

As promised below are articles with regard to poor air quality around wind turbines as well as other pertinent topics. I have also added some information on the very dangerous CF6 used in the turbines, it escapes more often than people think. If you read all of these documents you will notice, these turbines need attention every day — imagine what all those diesel powered boat trips will do to our environment.

I understand the Governors desire to “push” this “green energy” but it is not “green” and as a person with some say in the future of Maryland’s environment, the future for our children and grandchildren, I beseech you to listen to “the other side." I’d like you to consider the following: if the VA project can alter air at 27 miles off the coast, what will happen 10 miles off?

Ms, Heafey, this project has changed significantly since its inception and sadly this federal administration's desire to industrialize our ocean are superseding NEPA laws requiring a new Environmental Impact Study. Getting this wrong is irreversible. Saving our last undeveloped treasure for future generations is of paramount importance; most especially because we understand, and US Wind states in its own documents, this project will have no positive effect on climate change. As you will learn from below, quite the opposite is true.

Although unrelated to air quality, the State should also take into consideration the lack of experience of those involved in building this project. As I said at the hearing, Block Island would not be my proudest moment, if I were Mr. Grybowski. Mr. Dunmeyer may have some environmental experience, but admits to no experience, what so ever, in this type of industrial size development and Mr. Wilson, who the company had tell us to “listen to the science,” is an ex commercial fishing deckhand.

Please, please, all we are asking for is for you not to rush this project. We need complete and independent review of what is happening in and around the current projects. Doesn’t Maryland deserve that?

I thank you in advance for your consideration of this information.

Dianna Harris
Founder, Protect our Coast Delmarva
410-725-6848

https://www.baconsrebellion.com/wp/epa-asked-to-rule-on-cvow-air-quality-impacts/#:~:text=The%20Virginia%20offshore%20wind%20facility,flourishes%20in%20low%20energy%20air.

https://www.bbc.com/news/science-environment-49567197

https://ijr.com/frank-lasee-wind-turbines-and-lobsters-mean-less-lobsters-and-not-enough-electricity/

https://stopthesethings.com/2024/06/14/propaganda-overload-offshore-wind-industrys-costs-claims-hit-peak-delusion/

https://www.theguardian.com/business/2022/nov/08/greenhouse-gas-uk-windfarm-seagreen-project-scotland?fbclid=IwAR1nF7QwaGpazWkwKuT51JSAceJ217uvPi6Z8aWKJfdXB8ncpqXzUbgSDAM&mibextid=Zxz2cZ

https://www.wind-watch.org/documents/how-offshore-wind-drives-up-global-carbon-emissions/

https://www.wind-watch.org/documents/taking-the-wind-out-of-climate-change/

https://www.wind-watch.org/documents/climatic-impacts-of-wind-power/

https://docs.wind-watch.org/Miller-Keith-Climatic-impacts-wind-power.pdf

https://docs.wind-watch.org/Miller-Keith-Climatic-impacts-wind-power.pdf

https://www.americanexperiment.org/harvard-study-finds-wind-turbines-will-cause-more-warming-in-minnesota-than-emissions-reductions-would-avert/?fbclid=IwZXh0bgNhZW0CMTAAAR1rkoRChTsx LuXTHfK8s770hEP2Cb1vbDt46aQx6G_yC7x8WVp77M9sr8g_aem_ZmFrZWR1bW15MTZieXRlcw#:~:text=According%20to%20the%20study%2C%20wind,animals%20living%20near%20the%20turbines

https://www.theepochtimes.com/article/environmental-pollutant-how-a-key-climate-agenda-tool-harms-endangered-species-5637456?utm_campaign=socialshare_email&utm_source=email&fbclid=IwZXh0bgNhZW0CMTEAAR3vwMcWchy-YVFT2QNNc6h0McflNjN5ZqqcDoRXjUeYJgBoUTVKoH1kTn8_aem_AbzKkD25pVrtGYrvoT5XPwlEJpX9tXRmHXGa6PvqM2PMmtvRQEMb0A3KdzBA1G_aJjo56P5jNKZb4dinepIIIRgA

https://windeurope.org/newsroom/news/wind-energy-and-sf6-in-perspective/

https://patch.com/new-hampshire/merrimack/power-people-eversource-seeks-42-percent-rate-hike?fbclid=IwZXh0bgNhZW0CMTEAAR3rrrLlHQCHXbsU2HlJqrQ4o_x7i9e-Pa53fzR7Gm0jITdWwha8z8eh96k_aem_ZmFrZWR1bW15MTZieXRlcw

https://www.northjersey.com/story/opinion/2024/06/19/northeast-offshore-wind-will-impact-taxpayers/74137608007/?fbclid=IwZXh0bgNhZW0CMTEAAR22kbzgnRV4J7cIHc93KHOgqYDnqhPiZjdSt3SpgpB6LUvfyzw43Bzip6E_aem_ZmFrZWR1bW15MTZieXRlcw

Offshore wind energy will come at a high cost to Northeast taxpayers
northjersey.com

BOEM: No Impact On Global Warming by Wind Projects
saynotoosw.wordpress.com

6 attachments

72003156007-ripro-011621-ne-raimondo-environment.jpeg
64K

image-10.png
224K

NAitonal WindNo measurable influence on climate change Wind Energy News.pdf
291K

GCAM™ Summary Point Paper (© M. Koetz 2022) .pdf
952K

Economic Report Filed with the NJ BPU Estimates Proposed Wind Turbines Off Long Beach Island to Result in Approximately $668.pdf
51K

Allison-Wind-energy.pdf
1090K

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Re: Air Quality Permit for US Wind

1 message

Dianna Harris <diannaharris@me.com> Wed, Jul 3, 2024 at 9:06 AM
To: Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Good Morning Ms. Heafey,

Thank you for forwarding my June 19th information to the engineers for consideration during the review process of the US Wind air quality permit. Please see the attached and include it for further review.

As I stated in my oral comments at the hearing, we are in the unique position of having projects in various stages of construction to our north and south. We should not be in a rush to permit this project, rather, take the time to truly assess the environmental impacts as the happen before our eyes.

Below is the latest video from Nantucket's Madaket Beach. What you are seeing is the night view of the 21 installed Vineyard Wind turbines. The closest turbine is 15.5 miles off Madaket Beach. The bright lights in the center is the transfer station (US Wind is planning on 4 transfer stations). Image the night light pollution impact 5 miles closer, as these proposed turbines will only be 10.5 miles off the Ocean City coast.

Ms. Heafey, as per usual with the US wind project, permits are reviewed individually. As the department charged with protecting Maryland's environment, I humbly suggest the environmental impacts be considered in the entirety.

I am fully aware US wind will speak to the ADSL lighting that will be installed atop the turbines, Nantucket was promised the same. The problem is, that system has yet to be approved by the FAA. Further complicating matters is the fact that we have no control over when the system will be approved or what company, for that matter, will have ownership of this project when and if that system is ever approved. At the very least the public should be made aware of where the ADSL system is in the FAA approval process.

You have one chance to get this right and do what is best for the State of Maryland. Once done, this is irreversible. US Wind can leave whenever they want, which is why parts of this project are stand alone LLCs. (i.e. DE power plant land purchase)

Again, I ask for MDE to slow down, see how the projects to our north and south fair before committing to building a power plant off the shores of Maryland.

(A side note, this morning 5 of the 21 turbines are turning in 14-23 knots of wind, this is normal to date.)

Respectfully,
Dianna Harris

> On Jun 20, 2024, at 9:41 AM, Shannon Heafey -MDE- <shannon.heafey@maryland.gov> wrote:
>
> Good Morning Ms. Harris,
>
> Thank you for the articles. I sm adding your email to a file for comments for the permit engineers to include as the application is under review.
>
> Shannon

Shannon Heafey Public Participation Coordinator
Air Quality Permits Program, Air and Radiation Administration
Maryland Department of the Environment
1800 Washington Boulevard, Baltimore, Maryland 21230

shannon.heafey@maryland.gov
410-537-4433

On Wed, Jun 19, 2024 at 4:35 PM Dianna Harris <diannaharris@me.com> wrote:

Ms. Heafey,

As promised below are articles with regard to poor air quality around wind turbines as well as other pertinent topics. I have also added some information on the very dangerous CF6 used in the turbines, it escapes more often than people think. If you read all of these documents you will notice, these turbines need attention every day — imagine what all those diesel powered boat trips will do to our environment.

I understand the Governors desire to “push” this “green energy” but it is not “green” and as a person with some say in the future of Maryland’s environment, the future for our children and grandchildren, I beseech you to listen to “the other side." I’d like you to consider the following: if the VA project can alter air at 27 miles off the coast, what will happen 10 miles off?

Ms, Heafey, this project has changed significantly since its inception and sadly this federal administration's desire to industrialize our ocean are superseding NEPA laws requiring a new Environmental Impact Study. Getting this wrong is irreversible. Saving our last undeveloped treasure for future generations is of paramount importance; most especially because we understand, and US Wind states in its own documents, this project will have no positive effect on climate change. As you will learn from below, quite the opposite is true.

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Please, please, all we are asking for is for you not to rush this project. We need complete and independent review of what is happening in and around the current projects. Doesn’t Maryland deserve that?

I thank you in advance for your consideration of this information.

Dianna Harris
Founder, Protect our Coast Delmarva
410-725-6848

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https://ijr.com/frank-lasee-wind-turbines-and-lobsters-mean-less-lobsters-and-not-enough-electricity/

https://stopthesethings.com/2024/06/14/propaganda-overload-offshore-wind-industrys-costs-claims-hit-peak-delusion/

https://www.theguardian.com/business/2022/nov/08/greenhouse-gas-uk-windfarm-seagreen-project-scotland?fbclid=IwAR1nF7QwaGpazWkwKuT51JSAceJ217uvPi6Z8aWKJfdXB8ncpqXzUbgSDAM&mibextid=Zxz2cZ

https://www.wind-watch.org/documents/how-offshore-wind-drives-up-global-carbon-emissions/

https://www.wind-watch.org/documents/taking-the-wind-out-of-climate-change/

https://www.wind-watch.org/documents/climatic-impacts-of-wind-power/

https://docs.wind-watch.org/Miller-Keith-Climatic-impacts-wind-power.pdf

https://docs.wind-watch.org/Miller-Keith-Climatic-impacts-wind-power.pdf

https://www.americanexperiment.org/harvard-study-finds-wind-turbines-will-cause-more-warming-in-minnesota-than-emissions-reductions-would-avert/?fbclid=IwZXh0bgNhZW0CMTAAAR1rkoRChTsxLuXTHfK8s770hEP2Cb1vbDt46aQx6G_yC7x8WVp77M9sr8g_aem_ZmFrZWR1bW15MTZieXRlcw#:~:text=According%20to%20the%20study%2C%20wind,animals%20living%20near%20the%20turbines

https://www.theepochtimes.com/article/environmental-pollutant-how-a-key-climate-agenda-tool-harms-endangered-species-5637456?utm_campaign=socialshare_email&utm_source=email&fbclid=IwZXh0bgNhZW0CMTEAAR3vwMcWchy-YVFT2QNNc6h0McflNjN5ZqqcDoRXjUeYJgBoUTVKoH1kTn8_aem_AbzKkD25pVrtGYrvoT5XPwlEJpX9tXRmHXGa6PvqM2PMmtvRQEMb0A3KdzBA1G_aJjo56P5jNKZb4dinepIIIRgA

https://windeurope.org/newsroom/news/wind-energy-and-sf6-in-perspective/

https://patch.com/new-hampshire/merrimack/power-people-eversource-seeks-42-percent-rate-hike?fbclid=IwZXh0bgNhZW0CMTEAAR3rrrLlHQCHXbsU2HlJqrQ4o_x7i9e-Pa53fzR7Gm0jITdWwha8z8eh96k_aem_ZmFrZWR1bW15MTZieXRlcw

https://www.northjersey.com/story/opinion/2024/06/19/northeast-offshore-wind-will-impact-taxpayers/74137608007/?fbclid=IwZXh0bgNhZW0CMTEAAR22kbzgnRV4J7cIHc93KHOgqYDnqhPiZjdSt3SpgpB6LUvfyzw43Bzip6E_aem_ZmFrZWR1bW15MTZieXRlcw

Offshore wind energy will come at a high cost to Northeast taxpayers
northjersey.com

BOEM: No Impact On Global Warming by Wind Projects
saynotoosw.wordpress.com

21 Nantucket Turbines.mp4
3921K

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Necessity to understand the manufacturer.

1 message

Dianna Harris <diannaharris@me.com> Fri, Jul 5, 2024 at 7:35 PM
To: Shannon Heafey -MDE- <shannon.heafey@maryland.gov>
Cc: Pat Schrawder <pat.schrawder@gmail.com>, "Graffius, Keith" <Keith.graffius@mail.house.gov>, Terry McGean <Tmcgean@oceancitymd.gov>, Caryn Abbott <cabbott@co.worcester.md.us>

Ms. Heafey,

Please make sure, if you approve this environmental permit, made is aware of the parts manufacture.

Dianna Harris.

GE sued over turbine design flaws
energywatch.com

0014

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Protecting Maryland's Environment and Air from OSW

1 message

Dianna Harris <diannaharris@me.com> Tue, Jul 16, 2024 at 9:19 AM
To: Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Good morning Ms. Heafey,

As my point person for sharing information regarding the Air Quality permitting decision, please read the following information below. The first concerning the horrid gas used in these turbines, Sulfur Hexafluoride (SF6), which BOEM believes will leak from the turbines of these projects at least .5-1% equalling tons of emissions over the life of these projects. The EPA warns that SF6 has a 1/2 life of 3,200 years and that a very small amount will “have a significant impact on global climate change.” Why would we put that 10 miles off of MD’s coast? Most especially
now that we are seeing these massive turbines, never built to this size before, break before our very eyes?

They are not even a year old and already falling apart. Why should the East Coast be a guinea pig, let alone MD?
"The large Haliade-X turbines are just coming off GE’s assembly line and developers are buying them despite the absence of any sort of lengthy track record because the enormous blades are expected to allow the companies to produce electricity with fewer turbines, saving them a lot of money.”

Isn't our air quality more important than the profits of an Italian company?

As I have suggested, and will suggest again, what is the rush? Why don't we see how these experiments play out to our noth and south. VA is still installing bases, but Vineyard wind has 10 turbines up and, frankly, not running, as many observers share with those of us intently trying to save our environment. One turbine of 10, is not unopperational and broken, in less than a year. Again, what is the rush to let an inexperienced company try this experiment off the shores of MD?

Please make a decision based on facts and protecting the environment, which is your charge, rather than politics. This is too important to be political.

Again, thank you for your time,
Dianna Harris.

Why Are Massive Amounts of the World’s Most Potent Greenhouse Gas Being Ferried Out into the Ocean off the Eastern Seaboard?
lindabonvie.substack.com

https://vineyardgazette.com/news/2024/07/15/vineyard-wind-turbine-damaged-over-weekend

https://nantucketcurrent.com/news/vineyard-wind-reports-turbine-blade-damage-in-offshore-incident

https://commonwealthbeacon.org/energy/vineyard-wind-1-turbine-experiences-undisclosed-damage/

~Sukhpal Singh +91 98765 140

ACK4whales @ack4whales · 7h

Blades breaking already. Where is it? Did any boats hit it? Why did it break off? Non-answers from @VineyardWindUS so far.@NOAA where are you? Too concerned about 10 knot speed limits in Nantucket sound where there are NO WHALES. @InkyM @ACKCurrent

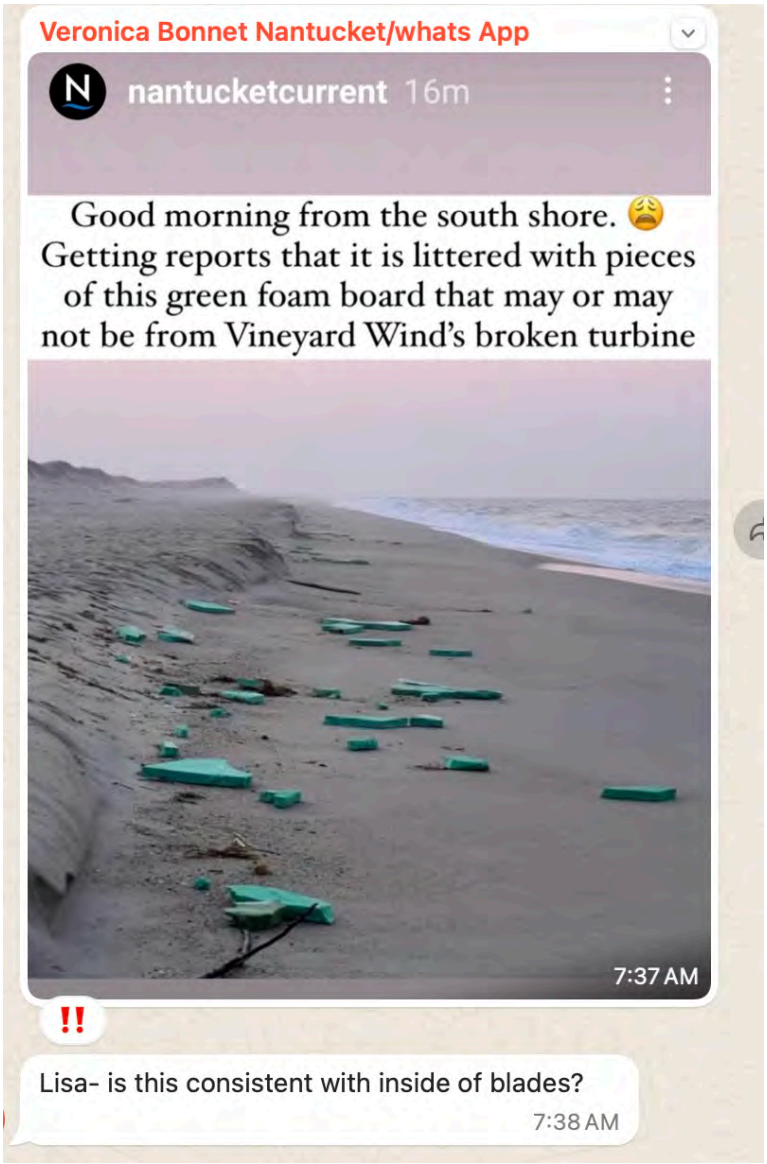
https://x.com/ack4whales/status/1812984458657579417?t=dTCx-0GjFRKPW5qZhB382Q&s=19

2:53 AM

Can anyone confirm which wind turbine was it exactly, in Vineyard wind farm

Any US notice to Mariners? .... for the floating debris

2:54 AM

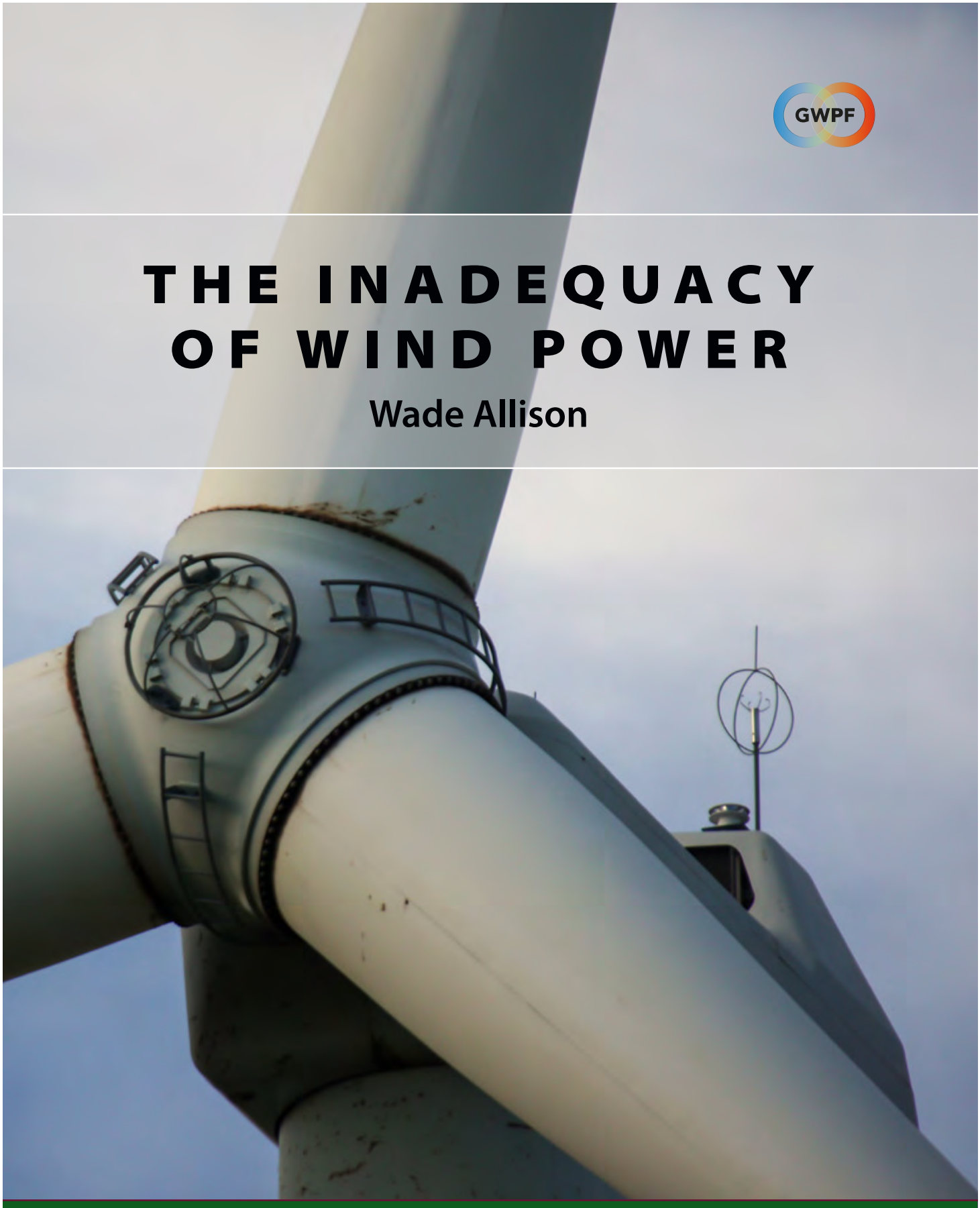

Veronica Bonnet Nantucket/whats App
nantucketcurrent 16m
Good morning from the south shore.
Getting reports that it is littered with pieces of this green foam board that may or may not be from Vineyard Wind's broken turbine
7:37 AM
!!
Lisa- is this consistent with inside of blades?
7:38 AM

Lisa Linow

> **Veronica Bonnet Nantucket/whats App**
> Lisa- is this consistent with inside of blades?

Yes, this appears to be the PVC foam core used in the interior of the blade. In looking at the pictures ACK4Whales shared, this looks like the blade had a manufacturing defected. We've seen this before a number of times. See this image from an Oklahoma turbine.

8:38 AM



THE INADEQUACY OF WIND POWER

Wade Allison

The Global Warming Policy Foundation
Note 40

The Inadequacy of Wind Power

Wade Allison

Note 40, The Global Warming Policy Foundation

About the author

Wade Allison is Emeritus Professor of Physics at the University of Oxford, and a Fellow of Keble College. In addition to teaching mathematics and physics at Oxford and researching at CERN, he is also deeply involved in medical physics and the biological effects of radiation, on which he has published three books: *Fundamental Physics for Probing and Imaging* (OUP, 2006), *Radiation and Reason* (2009) and *Nuclear is for Life* (2015). He is the Honorary Secretary of the Supporters Of Nuclear Energy (SONE), which was started by Bernard Ingham and others. He is a member of International Scientists for Accurate Radiation Information (SARI).

The inadequacy of wind power

The plan dramatically to cut the combustion of fossil fuels was accepted at the 2015 Paris Conference. The instinctive reaction around the world has been to revert to 'renewables', the sources of energy delivered intermittently by the power of the Sun. Unfortunately this power, attenuated by the huge distance that it must travel to reach the Earth, is extremely weak. That is why, before the advent of the Industrial Revolution, it was unable to provide the energy to sustain even a small global population with an acceptable standard of living.

Today, modern technology is deployed to harvest these weak sources of energy. Vast 'farms' that monopolise the natural environment are built, to the detriment of other creatures. Developments are made regardless of the damage wrought. Hydro-electric schemes, enormous turbines and square miles of solar panels are constructed, despite being unreliable and ineffective; even unnecessary.[1]

In particular, the generation of electricity by wind tells a disappointing story. The political enthusiasm and the investor hype are not supported by the evidence, even for offshore wind, which can be deployed out of sight of the infamous My Back Yard. What does such evidence actually say?

That the wind fluctuates is common knowledge. But these fluctuations are grossly magnified to an extent that is not immediately obvious – and has nothing to do with the technology of the wind turbine. The energy of the wind is that of the moving air, and, as every student knows, such energy is $\frac{1}{2}Mv^2$, where M is the mass of air and v the speed. The mass of air reaching each square metre of the area swept by the turbine blade in a second is $M = \rho v$, where ρ is the density of air: about 1.2 kg per cubic metre. So, the maximum power that the turbine can deliver is $\frac{1}{2}\rho v^3$ watts per square metre.

If the wind speed is 10 metres per second (about 20 mph) the power is 600 watts per square metre at 100% efficiency.[2] That means to deliver the same power as Hinkley Point C (3200 *million* watts) by wind would require 5.5 *million* square metres of turbine swept area – that should be quite unacceptable to those who care about birds and to other environmentalists.

But the performance of wind is much worse than that, as a look at the simple formula shows. Because the power carried by the wind depends on the *third* power of the wind speed, if the wind drops to half speed, the power available drops by a factor of 8. Almost worse, if the wind speed doubles, the power delivered goes up 8 times, and as a result the turbine has to be turned off for its own protection. This is not related to the technology of the turbine, which can harvest no more than the power that reaches the area swept by its blades.

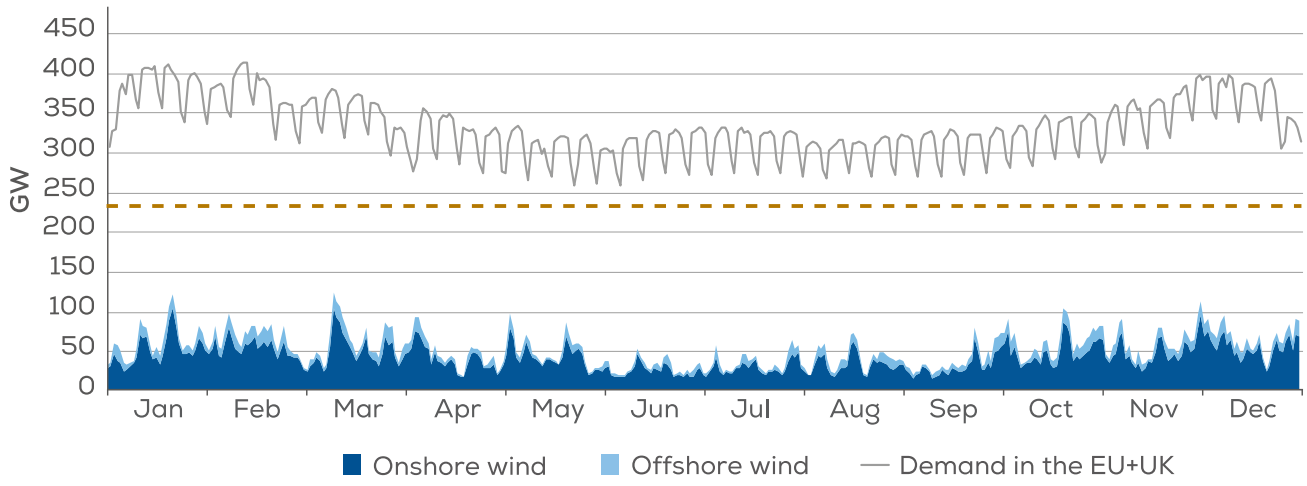


Figure 1: Power demand and generation in EU+UK in 2021

Source: WindEurope

The effect of the enhanced fluctuations is dramatic. In Figure 1, the blue area shows the total EU and UK wind energy generated each day in 2021. The installed nominal generating *capacity* was 236 GW (the brown dashed line), but the highest *output* in the year was 103 GW (26 March). This is not the headline plot that the industry shows to its investors, the media and politicians, but it comes from their own published annual WindEurope Report.[3]

The wind blows somewhat more steadily offshore than onshore, as every sailor knows. Nevertheless, the unreliability inherent in wind energy persists. Figure 2 shows the wind power generated by all UK offshore windfarms in March 2022, as presented online on the Crown Estate website.[4] Over some periods, it rose to the nominal installed capacity of 10 GW. However, for 8 days at the end of the month it averaged no more than 1.2 GW. The green rectangle (added) illustrates that 8.8 GW was not available for this time, presumably because the average wind speed halved. That much energy, 1600 GWh, is 1000 times the capacity of the world's largest grid storage battery (1.6 GWh at Moss Landings, California). Battery technology has its own problems. It can provide for laptops and other portable applications, even car batteries at up to 75 kWh, but larger batteries have problems with safety[5] and mineral shortages.[6] Batteries 20 million times larger are never going to be available and storage batteries will never make good the failure of offshore wind farms, even for a week. And the wind can drop for longer periods than that.

However, the bluster of windfarm politics, as pursued by the UK Government, ignores evidence, it seems. The industry is keen to promote onshore wind also. However there the fluctuations are greater than offshore and the political deterrence from My Back Yard is stronger. Consequently, the Government has promoted offshore projects. On 6 October 2020, Boris Johnson an-

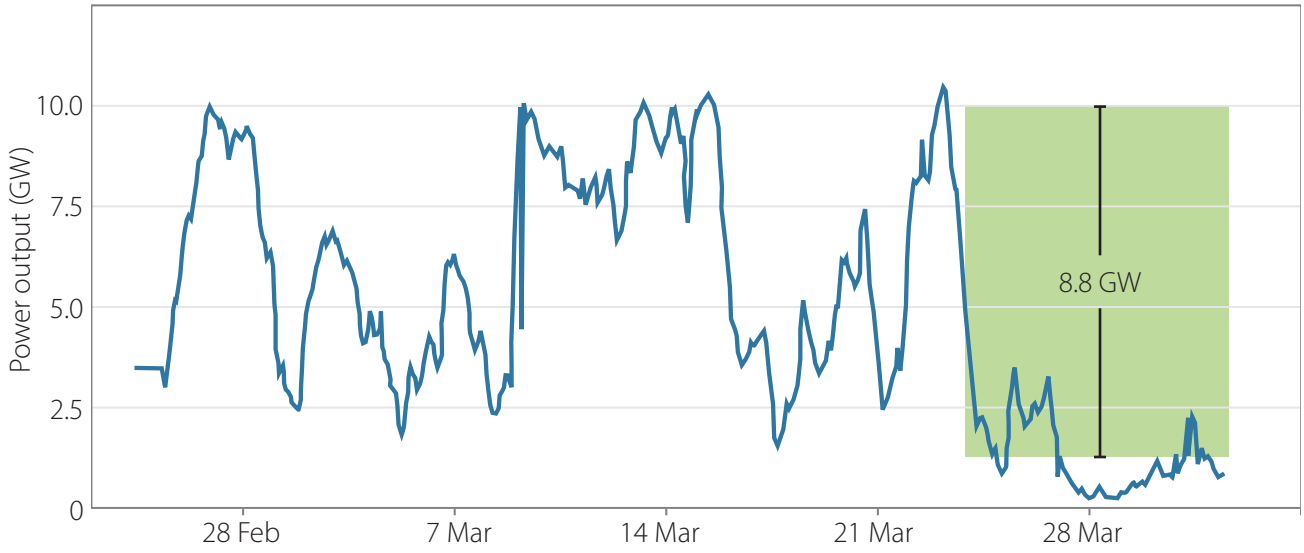


Figure 2: Offshore wind production in the UK, March 2022

Source: Redrawn from Crown Estate data.

nounced that 'wind farms could power every home by 2030'. He continued to harangue the public in Churchillian tone 'Your kettle, your washing machine, your cooker, your heating, your plug-in electric vehicle – the whole lot of them will get their juice cleanly and without guilt from the breezes that blow around these islands.' He was describing Government policy to expand existing offshore wind power from the existing capacity of 10.4 GW by an additional 40 GW, in addition to the already installed onshore capacity of 13.6 GW.

The significant word in the announcement was 'could'. Evidently, offshore wind might provide such lighting in the UK – sometimes. But Great Britain needs reliable energy all the time. British consumers should follow the example of Alice who, in negotiating terms with the White Queen, insisted on clarification of the day on which jam should be delivered.[7] Evidently, they should not look to wind power for reliable energy, but elsewhere.[1]

With general energy shortages, the war in Europe, high prices and the likelihood of failures in electricity supply, many popular scientific presumptions underlying energy policy should be questioned. Wind power fails on every count.

Notes

1 https://www.mdpi.com/2673-4362/3/3/13

2 Coincidentally, this is about the same power per sq. m as the solar flux on the illuminated globe. However, the share of this received at the latitude of the UK is reduced, especially in winter and at night, of course, when most energy is needed.

3 https://windeurope.org/intelligence-platform/product/wind-energy-in-europe-2021-statistics-and-the-outlook-for-2022-2026/

4 On its website, Crown Estate publishes a plot showing the running output over the previous 30 days. https://www.thecrownestate.co.uk/en-gb/what-we-do/asset-map/.

5 https://www.researchgate.net/publication/352158070_Safety_of_Grid_Scale_Lithium-ion_Battery_Energy_Storage_Systems

6 https://www2.bgs.ac.uk/mineralsuk/statistics/rawMaterialsForALowCarbonFuture.html

7 https://en.wikipedia.org/wiki/Jam_tomorrow

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People are naturally concerned about the environment, and want to see policies that protect it, while enhancing human wellbeing; policies that don't hurt, but help.

The Global Warming Policy Foundation (GWPF) is committed to the search for practical policies. Our aim is to raise standards in learning and understanding through rigorous research and analysis, to help inform a balanced debate amongst the interested public and decision-makers. We aim to create an educational platform on which common ground can be established, helping to overcome polarisation and partisanship. We aim to promote a culture of debate, respect, and a hunger for knowledge.

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News & Insights

Economic Report Filed with the NJ BPU Estimates Proposed Wind Turbines Off Long Beach Island to Result in Approximately $668 Million in Total Economic Losses, Including 6,700 Jobs Lost, Throughout Ocean County

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The Shore Municipalities (Long Beach Township, Beach Haven, Ship Bottom, Barnegat Light, Surf City, Harvey Cedars, Brigantine, and Ventnor City) continue to oppose the Atlantic Shores Offshore Wind, LLC proposal to build

offshore wind turbines just miles from Long Beach Island and nearby shore towns. As counsel for the Shore Municipalities, Pashman Stein Walder Hayden P.C. filed a public comment letter on their behalf to address the New Jersey Board of Public Utilities' (BPU) planned fourth solicitation for offshore wind projects to be constructed off the New Jersey coast. The public comment letter includes an economic analysis (the Report) prepared on behalf of Long Beach Township by Tourism Economics, an Oxford Economics Company.

Of note, the Report concluded that:

"The proposed wind turbines would represent visual disamenities that would generate negative impacts within the economies of the affected areas of coastal New Jersey. Existing research shows that these negative impacts include reduced tourism as a result of wind turbines being visible from beaches and shores."

Furthermore, the Report estimates the total economic losses throughout Ocean County attributable to the proposed wind turbines as follows:

“The $450.2 million in reduced visitor spending will generate $668.2 million in total economic losses throughout Ocean County. The $668.2 million in total economic losses will include approximately 6,700 total lost jobs and $47.6 million in reduced state and local tax revenue.”

Joseph Mancini, Mayor of Long Beach Township, said, “This Report confirms what we’ve long-stated – that the Atlantic Shores project will devastate the economies of the Shore Municipalities by deterring visitors and eliminating thousands of jobs. It is imperative that any offshore wind projects are placed far enough out to avoid these drastic impacts, which adversely affect not only the Shore Municipalities’ residents, visitors, and businesses, but all of New Jersey’s residents.”

Vincent Sera, Mayor of Brigantine said, “The Report substantiates the economic impact on our shore communities is devastating, this massive industrialization of the ocean will not only destroy the scenic view from our communities, but it will also destroy our local economies and much of our marine way of life.”

“We will not stop advocating for the protection of the diverse businesses and residential communities of Long Beach Island and nearby towns,” added Frank Huttle, Partner at

Pashman Stein Walder Hayden P.C. who, together with firm Chair and Managing Partner Michael S. Stein, and Partner Timothy P. Malone, represent the Shore Municipalities. "We urge the BPU and other agencies to carefully consider the Report and specifically the economic losses that are estimated to occur as a result of reduced tourism."

The Report, "*Potential Economic Loses of Reduced Tourism Attributable to Proposed Wind Turbines in Long Beach Island, NJ,*" can be viewed here

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News & Insights

Economic Report Filed with the NJ BPU Estimates Proposed Wind Turbines Off Long Beach Island to Result in Approximately $668 Million in Total Economic Losses, Including 6,700 Jobs Lost, Throughout Ocean County

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GeoCapital Asset Management (GCAM)™
Summary Points

- As confirmed by the United Nations Environment Program (UNEP), air, land, and water supply (GeoCapital) is the defining capital capacity that can limit sustained and sustainable economic productivity and development.[1]
- UNEP's findings confirm that the global economy has bumped up against the Law of Conservation of Matter, making GeoCapital supplies the primary determinant of production output. The era of the zero-sum supply of planetary capital capacity is upon us.
- Political economy decision-making must now evolve from policing geocapital use practices (behavior) to productivity sustainment analytics (supply optimization) that generate the systemic knowledge needed for an expandable and sustainable global economy.

- ***GeoCapital Asset Management™*** provides the now necessary methodologies to quantify, optimize, and manage these limited capital components as first order requirements for operational capability, enterprise sustainment, and human quality of life.

- ***GCAM™* is founded on the following principles:**

  - Air, land, and water capacities (GeoCapital) usable for public and private economic and social enterprise are a quantified default function of capital asset supplies retained in public trust reserves to sustain current and future human and ecological systems
  - Public and private owners and trustees of GeoCapital asset supplies must quantify both usable (working) and reserved (conservation) capital capacities, and implement planning, access, and use practices to optimize limited asset capacity volumes in both working and reserve capital accounts. These include full requirements definition, use controls, supply management, and recapitalization investment.
  - Quantified knowledge of scarce (snd non-expandable) Geocapital asset capacities must be used to mass-balance among competing requirements based on social and economic development and/or production achieved per unit of GeoCapital infrastructure asset capacity expended (i.e., working GeoCapital spent)
  - Goals for GeoCapital asset trustees and users must extend beyond legal compliance and police power factors (such as annual notices of violation received) to continuous operational improvement and recapitalization that lowers GeoCapital asset expenditure per unit of economic activity
  - GeoCapital and financial asset accounting practices must be harmonized using common managerial standards for acquisition, expenditure, investment, recapitalization, credit, and exchange to assure that enterprise shareholders and decision-makers, public asset trustees, lenders and investors, and the public have transparent data, information, and knowledge regarding expenditures and availability of non-expandable GeoCapital asset supplies
  - Enterprise reporting must fully integrate quantified GeoCapital asset data along with financial data to accurately disclose material risk, and demonstrate valid return for GeoCapital capital investment and expenditure from public and private supply pools
  - Quantified Geocapital knowledge can inform the multiple public and private entities exercising formal and informal geocapital access-denial activities that influence public trustees, compound

[1] United Nations Environment Assembly of the United Nations Environment Programme, Fourth Session: *Global Resources Outlook 2019: GeoCapital Resources for the Future We Want: Summary for Policymakers,* UNEP/EA.4/22 Distr.: General 21 January 2019, Nairobi, 11–15 March 2019, p. 9

physical supply limitations, and further limit economic enterprise operations using out-of-date legal, scientific, medical, and social knowledge and values, as well as unscrupulous mechanisms.

✦ ***GeoCapital Asset Management™* Methodology is based on the following steps:**

- Quantification of enterprise geocapital requirements (all operational categories including spatial, input, residual harboring, and setback)
- Inventory of available supply (owned, leased, or otherwise accessed through permit, license, or other legal or regulatory mechanism)
- Management of requirement/supply differentials through acquisition, disposition, operational requirement modifications, production changes, or other options
- Requirement, use, and supply data compiled is also usable by:
    1. Public Asset Trustees and Managers in determining which enterprise systems should/can have access to publicly held GeoCapital
    2. Public and Private Enterprise Owners and Managers to optimize operations for the lowest Geocapital expenditure per unit of productivity
    3. Enterprise to index GeoCapital requirements and consumption against a range of performance or investment factors to generate multiple additional knowledge indices that inform production, including but not limited to costing, market share, pricing, social license, harm reduction, and job satisfaction

✦ ***GCAM*™ further provides a quantified evidence platform to:**

- Resolve controversy when GeoCapital assets supplies have zero-sum implications (e.g., agriculture versus industry use)
- Determine highest and best use of scarce public and private GeoCapital
- Identify and market green products sans "washing"
- Prevent GeoCapital asset cross subsidies (green enterprise forgoes GeoCapital asset consumption providing cheap or free access by brown industry)
- Non-discriminatory, non-arbitrary access to credits and other rewards/incentives
- Replace aging and ineffective "Impact Analysis"

✦ ***GCAM*™ *architecture and practices revise out-of-date terminology and labels to recognize GeoCapital capital's equal place at the enterprise capital management table.***

- Depiction, labels, and operational importance of GeoCapital are upgraded to carry the necessary gravity and connectivity to enterprise decision-making and achieve the needed parity with other capital components of enterprise systems (human, physical, and financial)
- Public and private enterprise that generate production output with lower geocapital spend rates can book earned ROI in the form of market share, price competition, and credits

✦ ***GCAM*™ *Summary***

- Non-expandable air, land, and water supplies used in enterprise operations are definitionally scarce, in greater demand, and increasingly rationed; working capital supplies continue to shrink as reserves allocated to ecosystem recapitalization and species sustainment grow, and competitive requirements generated by economic development increase zero-sum circumstances
- Public and private enterprises that generate output with lower geocapital spend rates should be securing the resulting earned return-on-investment, and not conceding this value to competitors advantaged by off-shored production in locations offering at-will geocapital access
- The first step to reversing unsustainable enterprise design is to use **GeoCapital Asset Management™** methodologies, including inventories, revised allocation and access rules, production requirements efficiencies, analysis and disclosure, and marketing systems to prevent inefficient and dangerous use of public geocapital assets in economic ic systems.

filed: February 16, 2023 • Opinions, Rhode Island

No measurable influence on climate change

Credit: Posted Wednesday, February 15, 2023 | By Lisa Quattrocki Knight, M.D., Ph.D. and Bill Thompson | eastbayri.com ~~

Officially, offshore wind developers anticipate their projects will "have no measurable influence on climate change." Knowing this, they offer a different rationale. In the "purpose and need" section of the draft environmental impact statement for Revolution Wind, Ørsted justifies the offshore wind project based on its ability to fulfill Rhode Island's mandate for "renewable" energy. Meeting a political mandate differs rather significantly from combating climate change. Ørsted seems to understand this difference, but the public may not.

First, although offshore projects will produce electricity for 20-25 years, this renewable energy will replace only a small fraction of the fossil-fuel-generated electricity on the grid. As Richard York, an environmental studies professor at the University of Oregon, reported in the journal *Nature Climate Change*, real-world data indicate that alternative energy replaces only one-tenth the amount of fossil-fuel-based energy. For each 10 kWh produced by renewable sources, just 1 kWh of fossil-fuel-generated power will disappear. The German experience underscores the shortcoming of assuming otherwise. Despite spending $222 billion to install renewable capacity that exceeds twice their consumption rate, they have replaced only 8% of their carbon-based fuel generation. Germany remains Europe's highest carbon dioxide emitter, and consumers pay double the amount for electricity as their neighbors in France. [*See also report from China in* Nature Communications. *—NWW*]

Considering the dismal 8-10% fossil-fuel replacement value of these projects, their carbon footprints eclipse any advantages. The diesel-powered ships used for construction alone will likely emit more carbon dioxide than the projects will replace within their lifetimes. Furthermore, carbon emissions from maintenance and repair, decommissioning, steel and concrete production, and mining

copper and rare-earth metals all contribute to this footprint. The estimated 18 million gallons of oils, lubricants, and coolants stored within the turbines and offshore substations along the Atlantic Coast will add even more. The destruction of plankton, the trees of the ocean, will also worsen the carbon dioxide cost. Ørsted is correct—the totality of these hidden carbon emissions outweighs any possible benefit to climate change.

No environmentally conscious individual wants to hear such depressing facts, including us. Despite numerous articles from pro-wind enthusiasts touting the promise of offshore wind, the carbon savings of these projects fail to justify their construction. On its website, Ørsted announces that offshore wind will "help the U.S. meet its growing energy demands." They make no claims to help climate change or to reduce our dependence on fossil fuels. They make no claims because they cannot back up such assertions with facts.

Other aspects undermine the "greenness" of offshore wind projects as well. The substations and turbines will house over 40,000 lbs of sulfur hexafluoride, a greenhouse gas 23,500 times more potent than carbon dioxide. The football field-length blades that require replacement during the lifetime of the turbine cannot be recycled. Leading edge erosion of the blades results in a substantial release of fiberglass and epoxy particles that will contaminate the marine food web. These microplastics contain the harmful bisphenol A (BPA) and the "forever" PFAS chemicals. The marine food web accumulates and magnifies these toxic substances. Moreover, heavy metals from the corrosion protection on the turbines will leach into the water, further compromising the health of marine life.

Although offshore wind developments will have no measurable positive effect on climate change, they will have a measurable and potentially tragic impact on the number of whales, dolphins, birds, bats, and fish. They will also have a quantifiable effect on wave height and current strength, biodiversity, the ecology of the marine environment, and the financial cost to taxpayers. Absent climate change mitigation, corporate profits and political expediency appear to be providing the impetus for offshore wind development.

Written on behalf of Green Oceans (info@green-oceans.org) by Quattrocki Knight of Little Compton and Thompson of Tiverton.

[*More links at source*]

Source: Posted Wednesday, February 15, 2023 | By Lisa Quattrocki Knight, M.D., Ph.D. and Bill Thompson | eastbayri.com

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Ms. Heafey –

Please see the attached comment from US EPA Region 3 on the draft PSD Approval (Permit No. PSD-2024-01) for the US Wind, Inc. Maryland Offshore Wind Project.

Many thanks.

Gwendolyn K. Supplee (She, her, hers)
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U.S. Environmental Protection Agency, Region 3
Permits Branch (3AD10)
Air & Radiation Division
Phone 215-814-2763
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417K

EPA Comments on Draft Prevention of Significant Deterioration Approval, U.S. Wind, Inc.
Maryland Offshore Wind Project, Permit No. PSD-2024-01

PERMIT SUMMARY

The Maryland Department of the Environment (MDE) received an air quality permit application from US Wind, Inc. (US Wind) for the construction and operation of the Maryland Offshore Wind Project consisting of up to 121 wind turbine generators, up to four (4) offshore substations, and one (1) meteorological tower. The application included an air quality permit-to-construct application, an application for a New Source Review (NSR) Approval, and an application for a Prevention of Significant Deterioration (PSD) Approval. The proposed project will be located approximately 10 nautical miles (NM) at its closest point off the coast of Worcester County, Maryland on the outer continental shelf (OCS). The United States Environmental Protection Agency (US EPA) has the following comment on the draft PSD Approval.

Comment 1: MDE should ensure that US Wind establishes an enforceable public safety zone within the project lease area in accordance with 40 CFR §55.8 and §55.13 and 33 CFR §147. US Wind's modeling analysis supporting its proposed emission limits utilized 500-meter exclusion zones for its construction & commissioning (CC) activities. This 500-m safety exclusion zone was integral in establishing the project's working ambient air boundary, and should preclude public access. Without formally establishing these 500-meter safety exclusion zones utilized in US Wind's modeling analysis, there is no mechanism to ensure the National Ambient Air Quality Standards and PSD will be protected during the CC phase of this project. MDE should include a requirement in the final PSD approval that requires US Wind to establish an enforceable 500-meter exclusion zone to prevent incursion into the exclusion zone by unauthorized entities.

Prepared by:

Gwendolyn K. Supplee
US EPA Region 3
Supplee.gwendolyn@epa.gov
(215) 814-2763

US Wind Maryland Offshore Wind Project OCS Air Permit Application

On US Wind's Maryland Offshore Wind Project Outer Continental Shelf Air Permit Application filed in November of 2023, under Section 2.1 OCS Sources page 17 cites

"USEPA's implementing OCS Air Regulations at 40 CFR Part 55 adopt the statutory definition of an OCS source from Section 328 (a)(4)(c) of the Clean Air Act (CAA): " any equipment, activity, or facility which – (i) emits or has the potential to emit any air pollutant, (ii) is regulated or authorized under the Outer Continental Shelf Lands Act [43 U.S.C. 1331 et seq.], and (iii) is located on the Outer Continental Shelf or in or on waters above the Outer Continental Shelf." The regulations at 40 CFR Part 55 state that vessels are only considered OCS sources when they are: "(1) Permanently or temporarily attached to the seabed and erected thereon and used for the purposes of exploring, developing or producing resources therefrom, within the meaning of section 4(a)(1) of OCSLA (43 USC. Part 1331 et seq.) or (2) physically attached to an OCS facility, in which case only the stationary sources aspects of the vessels will be regulated."

At the bottom of page 20 under section 2.1.1 Support Vessels and continuing onto the top of page 22, US Wind's Permit Application reads

"In accordance with the Environmental Appeals Board (EAB) decision in roe Shell Gull of Mexico, Inc. and in re Shell Offshore, Inc., 15 EAD 193 (220), the potential emissions of an OCS source must also include emissions from associated support vessels when they are within 25 NM of the OCS source, but only during the time it is considered an OCS source (i.e. attached to the seabed)."

It then goes on to state at the bottom of page 21

"Therefore, for purposes of the OCS air permit, all vessels within 25 NM of the centroid of the wind turbine array are conservatively included in the potential emissions of the construction phase of the Project, including those which are anticipated to be utilized prior to the first instance of an OCS source. Therefore, the OCS source includes all vessels associated with the construction phase of the Project when those vessels are on-site (within the wind turbine array area) or enroute to or from the wind turbine array area when within 25 nautical miles 10 of the centroid of the wind turbine array area."

During US Wind's final addendum in November of 2024, it is stated:

"US wind has provided vessel specification literature for sample vessels utilized in the emissions calculations in Attachment A. The sample vessels specifications are currently built vessels used for constructing OCS wind facilities that may be used for the Project or are closely representative of the type of vessel anticipated to be used for the Project. These specifications provide typical vessel engine sizes for vessels for the types of vessels that are anticipated to be utilized."

This statement I believe to be inaccurate as the US Wind application fails to address a safe water vessel to bring the project into compliance with the Jones Act. From US Wind's own mariners page, I have documented Vessel "D" MMSI: 993672393, a 419' foot safe water vessel has anchored off the end of the Delaware Bay shipping channel at the Maryland Delaware line and at the edge of the US Wind OCS-A 0490 Lease Area , Delaware Ocean City, Maryland line since at least early December. Screenshots here documented from multiple AIS trackers on US Wind's Mariners section of their

website, as well as Atlantic Shores Offshore Wind Project's website, and MarineTraffic.com the ships position over the last several weeks.

During US Wind's subsequent addendums filed in January, September, and November of 2024, US Wind has not documented any indications that they have accounted for the safe water vessel classification, nor the pollution that the vessel emits over the course of the project. For this reason, I urge the Maryland Department of the Environment to deny US Wind's OCS Air Permit.

given at Hearing

1:21 81

All Inboxes

★ Jen Pawloski 1:21 PM
To: Jen Pawloski >

US Wind AIS Ships 12/9

US Wind — Fueling our future, naturally.

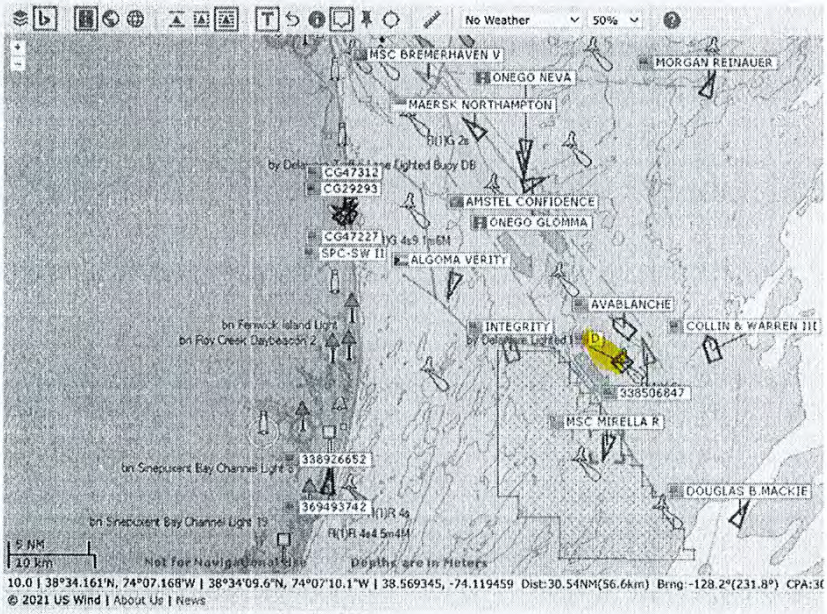
ABOUT US | OUR PROJECTS | FOR MARINERS | WHY OFFSHORE WIND

US Wind controls the rights to an 80,000-acre lease area located off the coast of Maryland, which can support close to 1,800 MW of offs
2023, the Bureau of Ocean Energy Management ("BOEM") issued a draft environmental impact statement on US Wind's construction a
company to secure final federal permits by the end of 2024.

Automatic Identification System (AIS) window showing maritime activity

US Wind is conducting geophysical and geotechnical survey campaigns to support our federal site characterization requirements
seafloor and near-surface sub-bottom using a variety of non-intrusive acoustic and magnetic technologies while geotechnical sur
seabed core samples, analyzing those samples to inform foundation design, turbine locations, and cable routing.

This Automatic Identification System (AIS) window will show maritime activity in the region for vessels equipped with and using
coordination with all mariners.



(/en/data/?asset_type=vessels&flag_in=US|USA) **D**

(/en/data/?asset_type=vessels&ship_type_in=1|IMC.MAP_CONTROLS_PRIMARY_VESSEL_FILTER_NAVIGATION_AID)

Safe Water
MMSI: 993672393

Overview In the news

ls/ships/shipid:5185665/mmsi:993672393/imo:0/vesse tails/ships/shipid:5185665/mmsi:993672393/imo:0/ves

Businesses

No data available at the moment

Summary

Where is the ship?

Safe Water **D** is currently located in the **Caribbean Sea** (reported **7 hours, 16 minutes ago**)

What kind of ship is this?

D (MMSI: 993672393) is a **Safe Water** and is sailing under the flag of **USA**. Her length overall (LOA) is 128 meters and her width is 62 meters.

General

Be the first to upload a photo for this vessel

Upload a photo

Name	D
Flag	USA
IMO	-

MMSI	993672393
Call sign	-
AIS transponder class	Class A
General vessel type	Safe Water
Detailed vessel type	Safe Water
Service Status	*Upgrade to unlock*
Port of registry	*Upgrade to unlock*
Year built	*Upgrade to unlock*

Latest AIS information

Navigational status	Aid to Navigation
Position received	7 h 17 mins ago
Vessel's local time	-
Latitude/Longitude	*Upgrade to unlock*
Speed	-
Course	-
True heading	-
Rate of turn	0 °/min
Draught	-
Reported destination	-
Matched destination	-
Estimated time of arrival	-
AIS source	Terrestrial - Atlantic (/en/ais/details/stations/11709) Operated By Dixie53

Upgrade to global AIS coverage

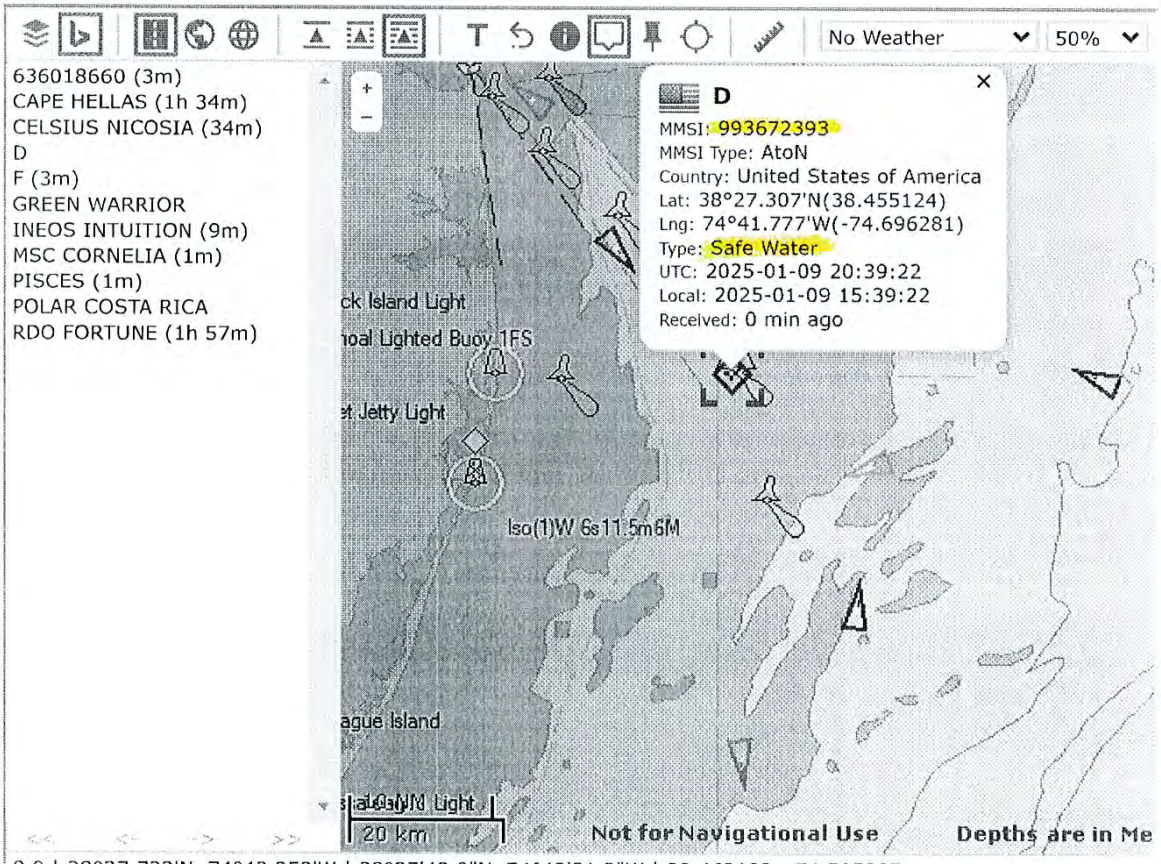
Notes

Locked content

Upgrade your account to unlock this

Mariners Information

TRACK OUR VESSELS

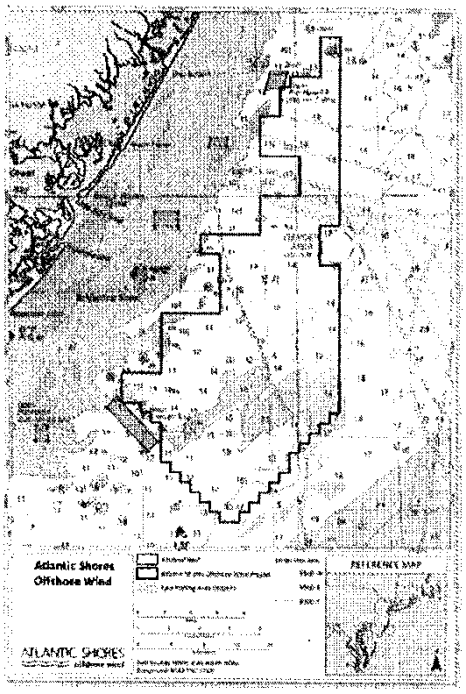


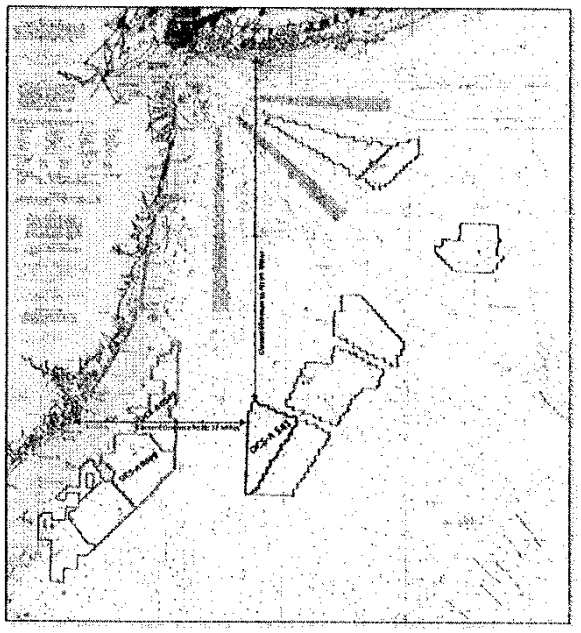
- **The Atlantic Shores geoscience team is conducting a multi-year investigation of seabed conditions in our lease areas and cable corridors to support project engineering.**

Geoscience, which includes geophysical and geotechnical- or G&G, combines both science and engineering. Atlantic Shores' G&G campaign works to create a map of the seabed in order to better understand the environment in which turbines will be constructed. This work is integral to designing the front end engineering aspects of an offshore wind project and is necessary for meeting both permitting and regulatory requirements.

More than 85 United States based personnel and 6 US survey vessels are engaged in the campaign, including 3 New Jersey-owned and operated vessels.

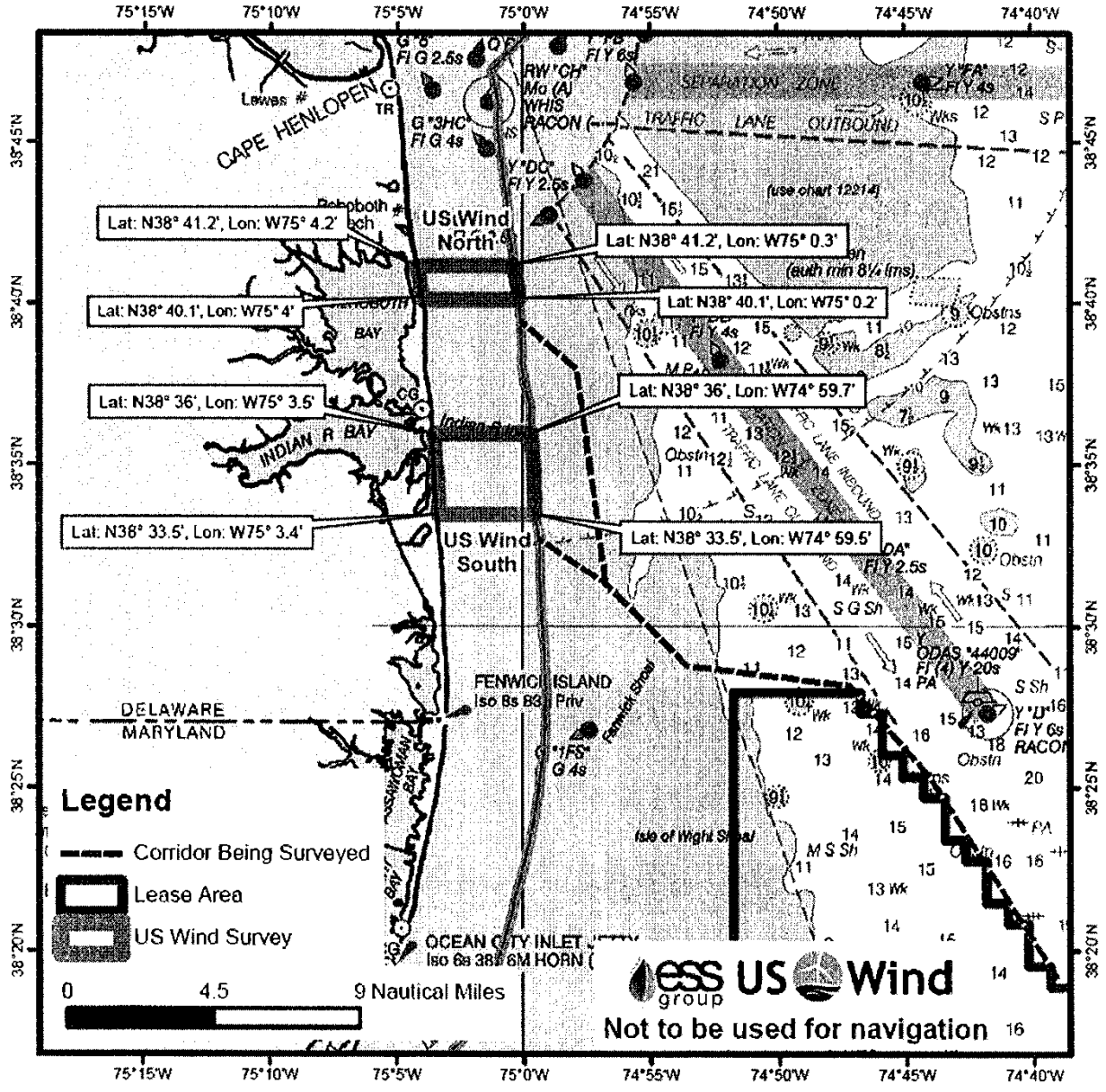
GPS COORDINATES FOR LEASE AREA BOUNDARIES





US Wind

US Wind Mariners Briefings can be found on the US Wind website at https://uswindinc.com/mariners/ or requested from Benjamin Cooper, US Wind's Director of Marine Affairs (b.cooper@uswindinc.com). You may also wish to contact US Wind's Fisheries Liaison Officers for fisheries specific information (Wolfgang Rain: 206-427-6553; wrain@searisksolutions.com and Ron Larsen: 570-242-5023; ronlarsen@searisksolutions.com) or the Offshore Fisheries Liaison (OFL6@Offshorewfs.com): 401-871-0557.

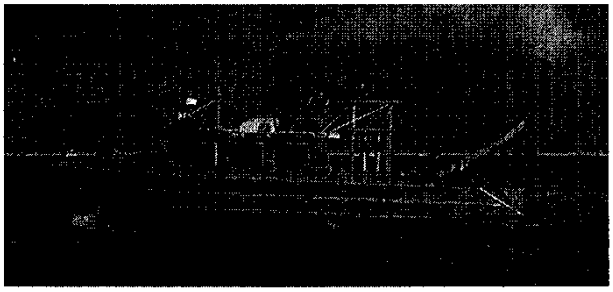


US Wind

US Wind[1] Mariners Briefing – April 24, 2022

Near Shore Geophysical Survey Activity

The **R/V Westerly** has been conducting nearshore geophysical survey operations along the potential Export Cable Corridors within 3 nautical miles of the Delaware shoreline since April 3, 2022 and will continue to do so until mid-May, weather dependent. The **R/V Westerly** is accompanied by the **Ocean City Girl**, which carries Protected Species Observers and an Offshore Fisheries Liaison to support survey operations. Local scout vessels are also being used to identify fishing gear to ensure avoidance. US Wind has worked with stakeholders to reduce the area being surveyed to the areas outlined on the chartlet below. US Wind will continue to coordinate with fishermen to share information on fishing activity and the status of our survey progress. The **R/V Westerly** requests a 250 yard closest point of approach from passing vessels and will monitor VHF-FM channels 13 and 16 for safe passing arrangements.



R/V Westerly – 50 ft LOA; Call Sign: WDF7918

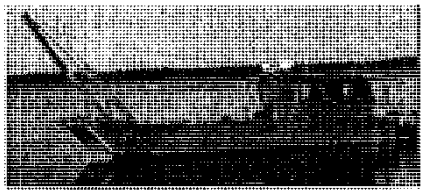
Geotechnical Survey Activities

The ***PSV Regulus*** completed its geotechnical survey campaign in the southeastern portion of the Lease area on April 23, 2022.

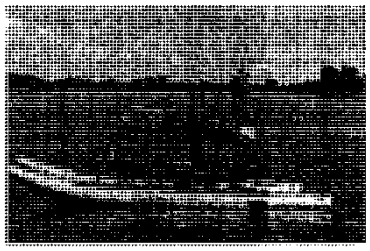
Looking Ahead:

US Wind will begin conducting geophysical surveys with three vessels (**R/V Yeti**, **Almar 31**, and **WAV-V 8**) within Indian River Bay on **May 9, 2022** and lasting approximately 6 weeks. After Labor Day, US Wind anticipates conducting geotechnical investigations along the very near shore of the Delaware coast and within Indian River Bay.

R/V Yeti



Almar 31



WAM-V 8

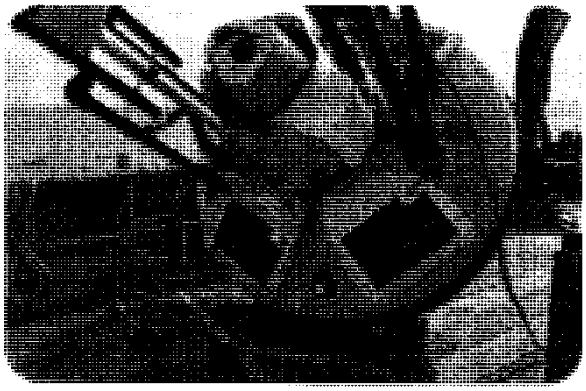
[1] In 2014, US Wind acquired a federal Lease area off the coast of Maryland, which has the potential to generate approximately 2,000 MW in offshore wind power. In 2017, Maryland approved the company's ~300 MW **MarWin** project, and in December 2021, the state approved the 808 MW **Momentum Wind** project. For more information, please visit our website: https://uswindinc.com.

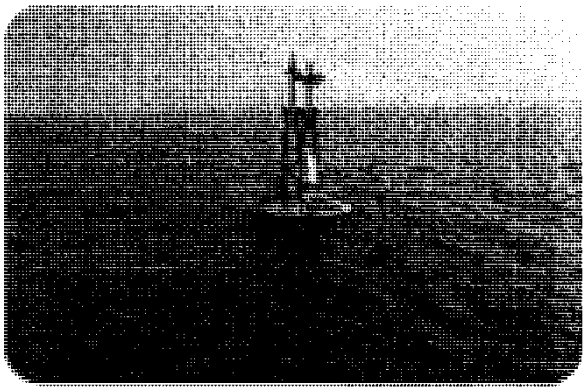
BUOY DATA SUPPORTS RESEARCH AND IS SHARED WITH MARINERS

Our survey activities are critical in understanding the seabed conditions within Atlantic Shores' Lease Areas.

We deployed four metocean buoys near Lease Area 0499 to gather ocean and air observations. The data collected by the buoys helps us to measure wind, ocean and weather conditions in order to inform the best development strategy for turbines. The data also contributes to the ongoing research, monitoring, modeling and analysis efforts of U.S governmental and academic institutions in the Mid-Atlantic region.

As part of our efforts we are proud to partner with MARACOOS to publicly release the data from all the buoys by using their web platform.





*Photos courtesy of Fugro

FISHERIES COMMUNICATION PLAN

Atlantic Shores Offshore Wind is actively working with the fishing community – both commercial and recreational – to understand their concerns and create a development plan with as little impact on fishing as possible. Our team aims to find a balance in the shared use of our ocean by seeking to understand and mitigate any potential effects our activities may have on the environment, wildlife, and industries that fuel our local economies. Our fisheries communication plan outlines ways fishermen can communicate concerns to our development team and methods Atlantic Shores will utilize to keep the fishermen informed and educated about our projects.

Fisheries Communications Plan – Lease Area OCS-A 0499

MEET OUR MARINERS

Kevin Wark

Fisheries Liaison Officer

Kevin is the owner of the Dana Christine, a fishing vessel he operates out of Barnegat Light, and a member of the Garden State Seafood Association. As a third-generation resident of Long Beach Island who's been fishing full-time for 39 years, he understands both the commercial and recreational fishing industry in New Jersey. Kevin's job as the Atlantic Shores Fisheries Liaison Officer is to bring fishermen's voices to Atlantic Shores Offshore Wind as a developer, so that we can work together to find the right balance in the shared use of our ocean and collaborate for the betterment of both our industries. He is here to listen to fishermen of all sectors and welcomes your questions, concerns and ideas.

kevin.wark@atlanticshoreswind.com | 609-290-8577

Brady Lybarger

Mobile Gear Fishing Representative

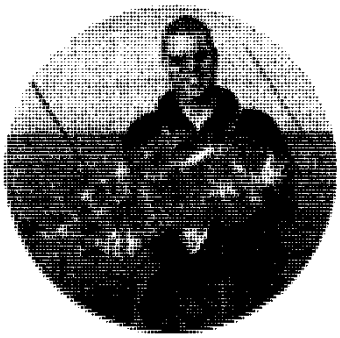
Brady is the owner of a direct-to-consumer seafood business based out of Cape May. He is the owner of F/V Salted and takes part in the commercial hook and line fishery. Brady has also participated in the commercial scallop fishery since 1999 and has been a captain for the past 13 years. He is a scallop advisory panel member for the New England Fishery Management Council and understands both the commercial and recreational fishing industry in New Jersey. Brady's job as the Atlantic Shores Mobile Gear Fishing Representative is to bring fishermen's voices, ideas, and concerns to Atlantic Shores

Offshore Wind. Brady is here to listen to fishermen of all sectors and welcomes your questions, concerns, and ideas.

jettyhunter@mac.com | 609-602-1417

Adam Nowalsky

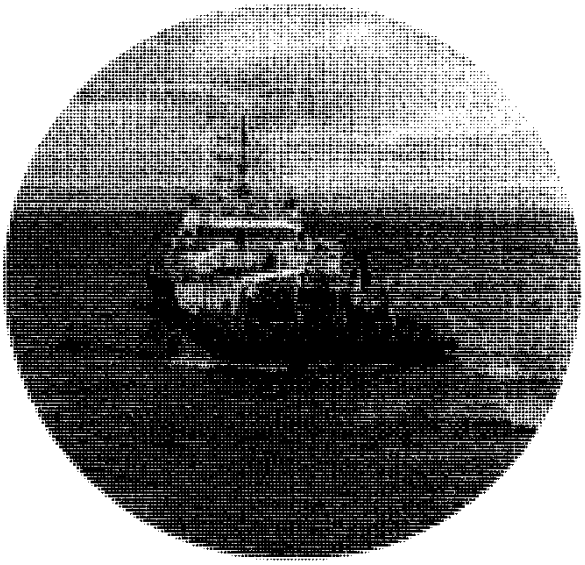
Recreational Fishing Representative



Adam has been a licensed charter fishing captain for over two decades. He has long been involved in fisheries management, beginning by serving on citizen advisory committees of the New Jersey Marine Fisheries Council before becoming a New Jersey representative to both the Atlantic States Marine Fisheries Commission and Mid-Atlantic Fishery Management Council. Adam also serves on the Board of Directors and is a past chairman of the New Jersey Chapter of the Recreational Fishing Alliance. Adam is the main point of contact within the NJ-based recreational fishing industry for Atlantic Shores. He will share information to and from the recreational fishing community stakeholders that are actively fishing in proximity to the Atlantic Shores Lease area, in a timely and all-inclusive manner.

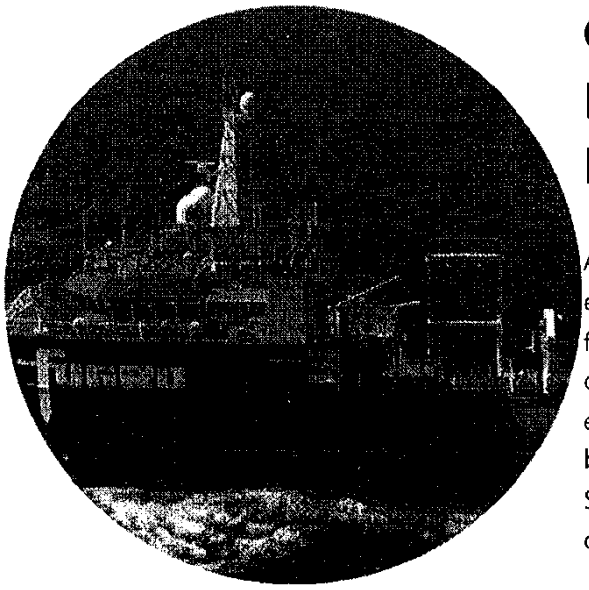
captadamnj@gmail.com | 609 618-0366

SURVEY VESSEL OPERATIONS SIGNUP



By filling out the information below you will receive email updates about survey vessel operations taking place in the Atlantic Shores Lease Areas. We will be providing many different pieces of information within our bulletins, including:

- Lease Area locations (including maps)
- Survey vessel descriptions (project details, vessel information, contact information, location, etc.)
- Other miscellaneous updates & more!



GEAR LOSS REIMBURSEMENT FOR M

Atlantic Shores and our contractors will make every attempt to avoid damaging fishing gear in our lease area during surveys, construction, and operations. If a fisherman experiences gear loss or damage that they believe was caused by or the result of Atlantic Shores' activities, they should complete our Gear Loss Reimbursement Form.

Download the Form Here

We look forward to connecting with you.

First

Last

Email

Affiliation

Are you involved with commerical or recreational fishing?

Street Address

City

State / Province / Region

ZIP / Postal Code

Country

SUBMIT

LEASE AREA 0499		LEASE AREA 0549		LEASE AREA 0541	
39.13976193	-74.0957	39.32220694	-73.941	39.47995625	-73.63214275
39.26254699	-73.944	39.67574952	-73.938	39.45346416	-73.63315032
39.32158277	-73.942	39.57842437	-74.051	39.45363171	-73.64717070
39.32278181	-73.996	39.54563139	-74.048	39.19437014	-73.65203542
39.37124038	-74.045	39.52971889	-73.994	39.19401612	-73.62441085
39.37072214	-74.191	39.45700366	-74.105	39.42591382	-73.44600466
39.30795700	-74.191	39.37127270	-74.107	39.47995625	-73.63214275
39.30627164	-74.248	39.37071064	-74.045		
39.27574837	-74.248	39.32338181	-73.99612002		
39.27500009	-74.226	39.32220694	-73.94197663		
39.24260937	-74.193				
39.21613229	-74.19196190				
39.13976193	-74.09576420				

Stephanie
Ballard

Re:
Jane Brady
Sjballard@comcast.net

Bonnie Ram
FOA petitions

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Re: US Wind Comment Period Extension

1 message

Katherine Azbell <davis.kathy459@gmail.com> Fri, Jan 10, 2025 at 6:33 PM
To: Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Thank you for the email. This is copy of letter I sent to NOAA
I would like to send this to you as my comments on the US Wind project
off the coast of Ocean City MD

I am hoping and praying the wind turbine project will not be allowed to go forward.

Thank you for your time and attention

****

NOAA/National Oceanic and Atmospheric Administration
1401 Constitution Avenue NW, Room 5128
Washington, DC 20230

I am writing you concerning the US Wind project off the coast of
Ocean City, MD.

I wish to share with you my concerns about the off shore wind projects
that have been in the making.
I am asking that you please do not allow this project to be done.
The risks involved in this are not worth the vast amount of damage
that will be done to marine life as a result of the construction and
creation of a wind farm here in Maryland.

There are many reasons that this should not be allowed to come
about.

1. We cannot allow the security risks that this project will create by
the interference of radar/sonar operations used by our military to
protect our country.
2. The INCIDENTAL TAKE AUTHORIZATION that US Wind is
trying to get approved for this project should not be allowed. The
harm done to this amount of marine life is not acceptable !!!
Please do not approve this destruction of marine life!!!
3. US Wind is not an American company. Why should we be
dependent on a foreign company for this wind project??
4. The cost of construction of this project will be extremely
expensive and will be passed on to our fellow citizens of our
country. Our citizens do not need any more increased costs to
provide energy for our homes.
5. Wind turbines have never been in existence in a hurricane
prone area here on the east coast of Maryland. How will these
wind turbines be able to stand up to this type of destructive
weather. Wind turbines are very, very costly to build and how
much energy and resources are going to be used to create
these? How is that creating a more green environment?? The
turbines may last 20 years, what happens when they are no
longer able to stay in operation???? What will you do with all this
debris??
Your organization's purpose is to protect and preserve our
Oceans. Please do not continue to pursue this project. It is NOT
the solution to going green and/or stopping climate change.
I am asking to please cease and desist!!!!

Please do not let your agency be responsible for NOT protecting
our Oceans!!!
Sincerely and Respectfully
Katherine J Azbell
10423 Friendship RD
Berlin, MD 21811

On Fri, Jan 10, 2025 at 4:41 PM Shannon Heafey -MDE- <shannon.heafey@maryland.gov> wrote:

> Dear Concerned Community Members:
>
> The Department has received requests for a one-time 60-day extension to the public comment period for the US Wind Air Quality permit to construct, which has been granted.
>
> The extended comment period will expire on **March 17, 2025. Please send comments for the formal record in writing to my attention by this date.**
>
> The draft permit conditions and supporting documents may be reviewed here: https://mde.maryland.gov/programs/permits/AirManagementPermits/Pages/U.-S.-Wind-Maryland-Offshore-Wind-Project-.aspx
> If you have any questions or concerns, please do not hesitate to contact me at your convenience.
>
> Thank you for your interest in this Air Quality Permit project,
> Shannon Heafey
>
> > Shannon Heafey Public Participation Coordinator
> > Air Quality Permits Program, Air and Radiation Administration
> > Maryland Department of the Environment
> > 1800 Washington Boulevard, Baltimore, Maryland 21230
> > shannon.heafey@maryland.gov
> > 410-537-4433

Maryland Department of Environment,

I am an Ocean City resident who is strongly opposed to this Offshore Wind project. I am been to many hearings and the fact that US Wind so called green energy, has to apply for an air quality permit sounded crazy to me. Then I did some research. These turbines can cause a reduced energy air plumes which could increase the ozone level in nearby urban areas. US Wind wants to place these turbines 10 miles from shore. How will this be in compliance with the EPA's ozone standard? The EPA should be required to investigate the potential impact on reduced energy air on ozone compliance.

Wind turbines are being built to reduce carbon emissions but in fact due to intermittent wind speeds the turbines require back up gas-fired power emissions to increase when the wind is not blowing. How is this green energy?

What many often overlook when it comes to air quality and wind farms is the supply chain emissions. More diesel emissions due to increased boat traffic, mining and processing metals and minerals used to construct the turbines, more diesel trucks bringing supplies to ports, construction of the turbines and operating and maintaining them will increase emissions. The supply chain for these turbines is global and will globally increase CO2 emissions. In closing building these wind turbines will not reduce CO2 emissions.

I hope you do some more research before you issue this permit.

Sincerely,

Kimberly Bassich

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Stop Offshore Wind Public Comment - US Wind Air Quality Permit Application

1 message

Kevin <kevin@stopoffshorewind.com> Fri, Mar 14, 2025 at 9:34 AM
To: "shannon.heafey@maryland.gov" <shannon.heafey@maryland.gov>
Cc: "chris.hoagland@maryland.gov" <chris.hoagland@maryland.gov>, "Anna.A@mail.house.gov" <Anna.A@mail.house.gov>, "Travis.Trejo@mail.house.gov" <Travis.Trejo@mail.house.gov>, "marybeth.carozza@senate.state.md.us" <marybeth.carozza@senate.state.md.us>, "Wayne.Hartman@house.state.md.us" <Wayne.Hartman@house.state.md.us>, "RMeehan@oceancitymd.gov" <RMeehan@oceancitymd.gov>

Dear Ms. Heafey,

Attached please find a written comment from the Stop Offshore Wind Coalition challenging the permit application of US Wind for their offshore wind project in Worcester County, MD.

Thank you in advance, and please let us know if you need anything additional from us to submit the comment.

Regards,

Kevin Gibbs

Stop Offshore Wind Board Member

Stop Offshore Wind Comment to MDE - US Wind Air Permit Application.pdf
430K

US Wind Maryland Air Quality Permit Challenge

Secretary Serena McIlwaine
Maryland Department of the Environment
1800 Washington Blvd
Baltimore, MD 21230

Dear Secretary McIlwaine,

Below please find our comment for submission regarding the Air Quality Permit Application for US Wind's proposed project off the coast of Ocean City. Thank you in advance for reviewing our comment and let us know if you have any questions.

Introduction

On December 7, 2023, US Wind, Inc. filed an air permit application (electronically) with the Maryland Department of the Environment MDE for the construction and operation of the 114 turbine Maryland Offshore Wind Project. MDE has extended the public comment period for US Wind's Air Quality Permit application to March 17, 2025.

Once in operation, the Maryland Offshore Wind Project will be constrained to emissions limits. The emissions will be generated from marine vessel engines used to support crew transfers to turbines, turbine maintenance, and for system monitoring.

This paper will reveal the emission limits during the operations phase of the project will be greatly exceeded as US Wind has significantly underestimated the degree of maintenance that will be required of the 114 offshore wind turbines. This analysis is based on the application of European offshore turbine failure rates to the 114 Maryland offshore wind turbine fleet (European offshore wind turbines are the most mature in the industry). Further, many additional studies have been conducted that reveal the larger 10+MW turbines as planned to be utilized off the Maryland Coast will incur significantly higher failure rates than their smaller less than 5MW offshore wind turbine predecessors referenced in the European studies.

With higher than projected turbine failure rates, more vessels will be required to service the turbines making the MDE air emission limits unattainable.

Narrative

As the proposed US Wind Maryland Offshore Wind Project will have 114 wind turbines from roughly 10 miles offshore to the outer continental shelf, a significant marine vessel fleet will be required to support project maintenance and monitoring activities. This fleet will be constrained to the MDE emissions limits as detailed below:

Pollutant	Maximum Annual C&C and O&M, Combined During C&C (tons/rolling 12-months)	Total C&C and O&M, Combined During C&C (tons)	Maximum O&M (tons/rolling 12-months)
NOx	616	1380	25
CO	149	344	24
PM-10	20	45	0.66
PM-2.5	19	44	0.65
VOC	11	26	2
SO_2	2	4	0.07
Pb	0.003	0.007	0
GHG (as CO_2e)	41,673	95,898	6763

US Wind has stated that they intend to comply with the above emission limits via the Table A-39 detail below as filed in Sept 2024 as an addendum to the air permit application that was filed in Dec 2023.

USWindAppAddendumSept2024 (1).pdf

Table A-39
US Wind, Inc. - Maryland Offshore Wind Project
Operations and Maintenance - Maximum Annual Emissions

Activity	Representative Vessel Type	AERMOD ID	Engine Type	Vessel Information: Number of Engines	Individual Equipment Size (kW)	Total Equipment Size (kW)	Engine Load Factor (%)	Distance per Round Trip (nautical miles)	Number of Round Trips	Total Distance Traveled (nautical miles)	Homeport During Project	Operational Years: NOx (ton/year)	VOC (ton/year)	CO (ton/year)	PM10 (ton/year)	PM2.5 (ton/year)	SO2 (ton/year)	Pb (ton/year)	HAPs (ton/year)	CO2 (ton/year)	CH4 (ton/year)	N2O (ton/year)
OCS A-0 Permit Emissions During Operations																						
Scour Protection Repairs																						
Scour protection repair	Fallpipe vessel	OMV1T1	Main Engine - In Transit		4,500	13,500	0.83	50	1	50	Sparrows Point	4.83E-01	6.40E-03	1.13E-01	1.42E-02	1.37E-02	2.84E-04	1.72E-06	8.09E-04	3.11E+01	1.24E-04	1.52E-03
		OMV1M1	Main Engine - Maneuvering	3	4,500	13,500	0.2					2.11E-01	2.80E-03	4.96E-02	6.20E-03	6.00E-03	1.24E-04	7.50E-07	3.54E-04	1.36E+01	5.40E-05	6.64E-04
		OMV1AT1	Auxiliary Engines - Transit		492	492	0.43	50	1	50		9.11E-03	1.21E-04	2.14E-03	2.68E-04	2.59E-04	5.35E-06	3.24E-08	1.53E-05	5.87E-01	2.33E-06	2.87E-05
		OMV1AM1	Auxiliary Engines - Maneuvering	2	1200	1200	0.43					4.03E-02	5.35E-04	9.48E-03	1.18E-03	1.15E-03	2.37E-05	1.43E-07	6.76E-05	2.60E+00	1.03E-05	1.27E-04
OSS O&M																						
Refueling operations to OSS	Crew transfer vessel	OMV2T1	Main Engine - In Transit		749	1,498	0.83	33	20	651	Ocean City	3.50E-01	1.53E-02	6.42E-02	1.53E-02	1.50E-02	2.21E-04	1.87E-06	1.56E-03	2.42E+01	2.93E-04	1.18E-03
		OMV2M1	Main Engine - Maneuvering	2	749	1,498	0.2					3.11E-02	1.36E-03	5.71E-03	1.36E-03	1.33E-03	1.97E-05	1.66E-07	1.38E-04	2.15E+00	2.60E-05	1.05E-04
		OMV2AT1	Auxiliary Engines - Transit		20	40	0.43	33	20	651		4.84E-03	2.12E-04	9.87E-04	3.60E-04	3.51E-04	3.06E-06	4.38E-08	2.46E-05	3.35E-01	4.05E-06	1.64E-05
		OMV2AM1	Auxiliary Engines - Maneuvering	2	20	40	0.43					1.78E-03	7.83E-05	3.64E-04	1.33E-04	1.29E-04	1.13E-06	1.62E-08	9.07E-06	1.24E-01	1.49E-06	6.04E-06
WTG Inspection/ Maintenance /Repairs																						
Main repair vessel	Jack-up vessel	OMV3T1	Main Engine - In Transit		2,350	4,700	0.83	50	1	50	Sparrows Point	4.73E-01	1.90E-02	3.94E-02	6.81E-03	6.09E-03	1.44E-02	7.61E-07	1.66E-03	2.36E+01	3.58E-04	1.04E-03
		OMV3M1	Main Engine - Maneuvering	2	2,350	4,700	0.00					0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
		OMV3AT1	Auxiliary Engines - Transit		1,000	2,000	0.43	50	1	50		8.33E-02	1.11E-03	1.96E-02	2.45E-03	2.37E-03	4.90E-05	2.96E-07	1.40E-04	5.37E+00	2.13E-05	2.62E-04
		OMV3AM1	Auxiliary Engines - Maneuvering	2	1,000	2,000	0.43					1.09E+00	1.45E-02	2.57E-01	3.22E-02	3.11E-02	6.43E-04	3.89E-06	1.84E-03	7.05E+01	2.80E-04	3.44E-03
Ad hoc survey workand cable survey/Inspections	Multi-role survey vessel	OMV4T1	Main Engine - In Transit		392	784	0.83	50	8	400	Sparrows Point	1.68E-01	2.23E-03	3.95E-02	4.94E-03	4.78E-03	9.88E-05	5.98E-07	2.82E-04	1.08E+01	4.30E-05	5.29E-04
		OMV4M1	Main Engine - Maneuvering	2	392	784	0.20					7.00E-02	9.29E-04	1.65E-02	2.06E-03	1.99E-03	4.11E-05	2.49E-07	1.17E-04	4.51E+00	1.79E-05	2.20E-04
		OMV4AT1	Auxiliary Engines - Transit		135	270	0.43	50	8	400		2.79E-02	1.22E-03	5.69E-03	2.08E-03	2.02E-03	1.76E-05	2.52E-07	1.42E-04	1.93E+00	2.33E-05	9.44E-05
		OMV4AM1	Auxiliary Engines - Maneuvering	2	135	270	0.43					4.82E-02	2.11E-03	9.83E-03	3.59E-03	3.49E-03	3.05E-05	4.36E-07	2.45E-04	3.34E+00	4.03E-05	1.63E-04
Cable Inspection/Repairs																						
Cable burial repair	Multi-role survey vessel	OMV5T1	Main Engine - In Transit		392	784	0.83	50	5	250	Sparrows Point	1.05E-01	1.39E-03	2.47E-02	3.09E-03	2.99E-03	6.18E-05	3.74E-07	1.76E-04	6.77E+00	2.69E-05	3.31E-04
		OMV5M1	Main Engine - Maneuvering	2	392	784	0.2					8.75E-02	1.16E-03	2.06E-02	2.57E-03	2.49E-03	5.14E-05	3.11E-07	1.47E-04	5.64E+00	2.24E-05	2.75E-04
		OMV5AT1	Auxiliary Engines - Transit		135	270	0.43	50	5	250		1.74E-02	7.64E-04	3.55E-03	1.30E-03	1.26E-03	1.10E-05	1.58E-07	8.86E-05	1.21E+00	1.46E-05	5.90E-05
		OMV5AM1	Auxiliary Engines - Maneuvering	2	135	270	0.43					6.02E-02	2.64E-03	1.23E-02	4.48E-03	4.36E-03	3.81E-05	5.45E-07	3.06E-04	4.17E+00	5.04E-05	2.04E-04
Daily O&M and Miscellaneous																						
Daily crew transfer vessel	Crew transfer vessel #1	OMV6T1	Main Engine - In Transit		749	1,498	0.83	33	365	11,880	Ocean City	1.17E+00	1.24E-01	1.50E+00	2.61E-02	2.61E-02	3.91E-03	3.26E-06	1.05E-02	4.43E+02	5.34E-03	2.16E-02
		OMV6M1	Main Engine - Maneuvering	2	749	1,498	0.2					2.60E+00	2.75E-01	3.33E+00	5.79E-02	5.79E-02	8.68E-03	7.23E-06	2.34E-02	9.83E+02	1.19E-02	4.80E-02
		OMV6AT1	Auxiliary Engines - Transit		20	40	0.43	33	365	11,880		5.23E-02	1.26E-03	2.23E-02	1.35E-03	1.35E-03	5.41E-05	1.69E-07	1.31E-04	6.12E+00	7.39E-05	2.99E-04
		OMV6AM1	Auxiliary Engines - Maneuvering	2	20	40	0.43					4.82E-01	1.16E-02	2.06E-01	1.25E-02	1.25E-02	4.98E-04	1.56E-06	1.20E-03	5.64E+01	6.81E-04	2.76E-03
Daily crew transfer vessel	Crew transfer vessel #2	OMV7T1	Main Engine - In Transit		749	1,498	0.83	33	365	11,880	Ocean City	1.17E+00	1.24E-01	1.50E+00	2.61E-02	2.61E-02	3.91E-03	3.26E-06	1.05E-02	4.43E+02	5.34E-03	2.16E-02
		OMV7M1	Main Engine - Maneuvering	2	749	1,498	0.2					2.60E+00	2.75E-01	3.33E+00	5.79E-02	5.79E-02	8.68E-03	7.23E-06	2.34E-02	9.83E+02	1.19E-02	4.80E-02
		OMV7AT1	Auxiliary Engines - Transit		20	40	0.43	33	365	11,880		5.23E-02	1.26E-03	2.23E-02	1.35E-03	1.35E-03	5.41E-05	1.69E-07	1.31E-04	6.12E+00	7.39E-05	2.99E-04
		OMV7AM1	Auxiliary Engines - Maneuvering	2	20	40	0.43					4.82E-01	1.16E-02	2.06E-01	1.25E-02	1.25E-02	4.98E-04	1.56E-06	1.20E-03	5.64E+01	6.81E-04	2.76E-03
Daily crew transfer vessel	Crew transfer vessel #3	OMV8T1	Main Engine - In Transit		749	1,498	0.83	33	365	11,880	Ocean City	1.17E+00	1.24E-01	1.50E+00	2.61E-02	2.61E-02	3.91E-03	3.26E-06	1.05E-02	4.43E+02	5.34E-03	2.16E-02
		OMV8M1	Main Engine - Maneuvering	2	749	1,498	0.2					2.60E+00	2.75E-01	3.33E+00	5.79E-02	5.79E-02	8.68E-03	7.23E-06	2.34E-02	9.83E+02	1.19E-02	4.80E-02
		OMV8AT1	Auxiliary Engines - Transit		20	40	0.43	33	365	11,880		5.23E-02	1.26E-03	2.23E-02	1.35E-03	1.35E-03	5.41E-05	1.69E-07	1.31E-04	6.12E+00	7.39E-05	2.99E-04
		OMV8AM1	Auxiliary Engines - Maneuvering	2	20	40	0.43					4.82E-01	1.16E-02	2.06E-01	1.25E-02	1.25E-02	4.98E-04	1.56E-06	1.20E-03	5.64E+01	6.81E-04	2.76E-03
Daily crew transfer vessel	Crew transfer vessel #4	OMV9T1	Main Engine - In Transit		749	1,498	0.83	33	365	11,880	Ocean City	1.17E+00	1.24E-01	1.50E+00	2.61E-02	2.61E-02	3.91E-03	3.26E-06	1.05E-02	4.43E+02	5.34E-03	2.16E-02
		OMV9M1	Main Engine - Maneuvering	2	749	1,498	0.2					2.60E+00	2.75E-01	3.33E+00	5.79E-02	5.79E-02	8.68E-03	7.23E-06	2.34E-02	9.83E+02	1.19E-02	4.80E-02
		OMV9AT1	Auxiliary Engines - Transit		20	40	0.43	33	365	11,880		5.23E-02	1.26E-03	2.23E-02	1.35E-03	1.35E-03	5.41E-05	1.69E-07	1.31E-04	6.12E+00	7.39E-05	2.99E-04
		OMV9AM1	Auxiliary Engines - Maneuvering	2	20	40	0.43					4.82E-01	1.16E-02	2.06E-01	1.25E-02	1.25E-02	4.98E-04	1.56E-06	1.20E-03	5.64E+01	6.81E-04	2.76E-03
Environmental monitoring Vessel	Sportfisher	OMV10T1	Main Engine - In Transit		749	1,498	0.83	33	100	3,255	Ocean City	4.37E+00	1.92E-01	8.03E-01	1.92E-01	1.87E-01	2.77E-03	2.34E-05	1.95E-02	3.03E+02	3.66E-03	1.48E-02
		OMV10M1	Main Engine - Maneuvering	2	749	1,498	0.2					1.55E-01	6.82E-03	2.85E-02	6.82E-03	6.66E-03	9.83E-05	8.32E-07	6.92E-04	1.08E+01	1.30E-04	5.26E-04
		OMV10AT1	Auxiliary Engines - Transit		20	40	0.43	33	100	3,255		6.05E-02	2.65E-03	1.23E-02	4.50E-03	4.38E-03	3.83E-05	5.48E-07	3.07E-04	4.19E+00	5.06E-05	2.05E-04
		OMV10AM1	Auxiliary Engines - Maneuvering	2	20	40	0.43					8.92E-03	3.91E-04	1.82E-03	6.64E-04	6.46E-04	5.64E-06	8.08E-08	4.53E-05	6.18E-01	7.46E-06	3.02E-05
Electrical Service	150 kW standard diesel	OMD1	Engine	4	150	600	1.00	N/A	N/A	N/A	N/A	2.65E-01	1.26E-01	2.31E+00	1.98E-02	1.98E-02	4.50E-03	0.00E+00	1.16E-02	4.89E+02	1.98E-02	3.97E-03

It should be noted that the US Wind projected emissions are essentially at the MDE limits so there is no allowance for additional emissions should turbine maintenance necessitate additional vessel support.

Little data exists for offshore wind turbine failure rates. However, Carroll, McMillan, and McDonald published a detailed paper in the August 2015 edition of *Wind Energy* titled "Failure rate, repair time and unscheduled O&M cost analysis of offshore wind turbines" [1]. Their study is based on roughly 350 offshore wind turbines throughout Europe as the European turbine fleet are the most mature offshore wind turbines in the world. Their data set consists of over 1768 turbine years of operational data. Further, turbine sizes in the data set are between 2MW and 4MW (i.e. much smaller than the 10+ MW machines slated to be anchored off the Maryland Coast).

The results of the Carroll, McMillan, and McDonald study revealed an average turbine failure rate of 8.3 failures per turbine per year consisting of 6.2 minor repairs, 1.1 major repairs, and 0.3 major replacements. Minor repairs can be assumed to be addressed in one shift (i.e. one transfer vessel trip to affected turbine tower). Major repairs were found to take roughly 75 hours or 6 shifts (i.e. six transfer vessel trips to affected turbine tower). Major replacements were found to take roughly 250 hours or 20 shifts (i.e. twenty transfer vessel trips to affected turbine tower).

The following annual transfer vessel trips would be required if one applies the above failure rate to the 114 Maryland Offshore Wind Project Fleet:

6.2 minor repairs	=			6.2 trips/yr
1.1 major repairs	=	6 shifts x 1.1	=	6.6 trips/yr
0.3 major replacements	=	20 shifts x 0.3	=	6.0 trips/yr
Average annual trips/turbine			=	18.8 trips/yr
TOTAL estimated annual trips for 114 turbines			=	2143.2 trips

In order to maintain the 114 turbine fleet, **5.9 transfer vessels** will be required to operate 365 days/yr (2143.2/365 = 5.9 vessels). Recognize, the US Wind emissions are already at limit with their planned 4 vessel marine fleet.

One also needs to understand that major replacements will require large cranes to be transported to the affected towers to address the failed components. The emissions generated to transport and operate cranes and other heavy equipment is not estimated but will only add to the annual emissions total.

Further, all turbines require routine and preventive maintenance PMs as required by the turbine original equipment manufacturers OEMs to help prevent premature component failures. Routine greasing and battery checks are examples of these preventive maintenance tasks. It's estimated that each tower will require an additional 3 trips/yr to address PMs and routine maintenance which equates to an additional 342 trips/yr for all 114 turbines. That said, one additional transfer vessel will be required to address PMs and routine maintenance tasks. Hence, at least **7** transfer vessels will now be required to meet the maintenance needs.

More importantly, the Maryland Offshore Wind Project will construct amongst the largest wind turbines available. These turbines will be significantly greater in size than the 2-4 MW turbines analyzed in the Carroll, McMillan, and McDonald study. As pointed out by Carroll, McMillan, and McDonald "larger turbines have higher failure rates". Similarly, Hoffman and state in a paper published in Energy Precedia "Based on the results of this paper, it can be concluded that higher failure rates will quite fast counterbalance the benefits of large wind turbines" [2]. Even the Department of Energy recognizes "the lack of maturity of larger offshore wind turbines can lead to high finance, reliability (e.g. premature component failures) and safety risks" [3].

Because limited reliability data exists of large (10+ MW) offshore wind turbines, Alejandro Sanchez at the University of Ferrara has developed a reliability model to predict the failure rates of a 10MW offshore wind turbine [4]. His model predicts greater than 16 failures/turbine/yr which is essentially double

the failure rate as tabulated by Carroll, McMillan, and McDonald with their 2-4 MW turbine population. If Sanchez's model is correct, a transfer vessel fleet of **14** will be required. Focusing on NOx emissions alone, US Wind projects each transfer vessel to generate 4.3 tons of NOx/yr. A **14** vessel fleet would generate in excess of 60 tons of NOx each year far exceeding the 25 tons/yr limit. Recognize, these figures don't account for the additional emissions generated from the cranes, heavy equipment, and transport of such.

Conclusion

US Wind is constrained to operate within the emission limits as mandated by the Maryland Department of the Environment. These emissions are generated from marine vessel engines used to support crew transfers to turbines, turbine maintenance, and for system monitoring. US Wind has projected a support vessel fleet that narrowly falls within the MDE emissions limits. However, US Wind has significantly underestimated the marine vessel fleet that will be required to maintain the Maryland Offshore Wind Project 114 turbines by orders of magnitude. Many studies exist that identify or project offshore wind turbine failure rates, and no studies indicate failure rates that align with the proposed US Wind support vessel fleet. To keep up and address the failed turbines, US Wind will need to double, triple, or quite possibly quadruple the size of their marine support fleet to ensure reasonable levels of turbine availability.

Kevin Gibbs
Stop Offshore Wind Board Member

Cc:
Chris Hoagland – Director of Air and Radiation Administration - chris.hoagland@maryland.gov
U.S. Rep. Andy Harris R (MD 1) - Anna.A@mail.house.gov, Travis.Trejo@mail.house.gov
MD State Senator Mary Beth Carozza R (D 38) - marybeth.carozza@senate.state.md.us
MD State Delegate Wayne Hartman R (D 38C) - Wayne.Hartman@house.state.md.us
Ocean City Mayor Rick Meehan - RMeehan@oceancitymd.gov

References

[1] Carroll J, McMillan D, McDonald A. Failure Rate, Repair Time and Unscheduled O&M Cost Analysis of Offshore Wind Turbines. *Wind Energy* 2015
[2] Hoffman M, Sperstad I. Will 10 MW Wind Turbines Bring Down the Operation and Maintenance Cost of Offshore Wind Farms? *Energy Procedia* 2014
[3] U.S. Department of Energy. An Operations and Maintenance Road Map for U.S. Offshore Wind. May 2024
[4] Sanchez A. Reliability of a 10MW Offshore Wind Turbine. *EWEA Conference Paper*. Nov 2015

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Offshore wind- I oppose air quality permits being granted for the offshore wind operstions

1 message

kwolfsden@gmail.com <kwolfsden@gmail.com> Mon, Jan 13, 2025 at 5:04 PM
To: shannon.heafey@maryland.gov

I am strongly against the issuance of any air quality permits for offshore wind in the Ocean City area, or anywhere that can be seen from the Maryland coast. Object to the amount of pollutants that this construction would inflict upon this precious environmental area. Thank you

Kenneth D Wolf

636 magothy view dr Arnold MD 21012

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Re: Air Quality Permits

1 message

Roger B WOOLEYHAN <4WOOLEYS@msn.com> Fri, Jan 17, 2025 at 10:47 AM
To: Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Good morning Ms Heafey,
Thank you for kindly catching this!
Yes please direct our email to

draft Air Quality Permit
for the
Department of the Environment's Air Quality Permits Program
Appreciate your support,
Sincerely, Elizibeth Wooleyhan
Watermen's Association of Worcester County

Sent from my iPhone

> On Jan 17, 2025, at 9:31 AM, Shannon Heafey -MDE- <shannon.heafey@maryland.gov> wrote:
>
> Good Morning Ms. Wooleyhan,
>
> Your email is addressed to the Public Service Commission, not to the Department of the Environment. If you intended to submit this email as formal testimony for the draft Air Quality Permit for the Department of the Environment's Air Quality Permits Program, please let me know.
>
> Thank you,
> Shannon Heafey
>
> Shannon Heafey Public Participation Coordinator
> Air Quality Permits Program, Air and Radiation Administration
> Maryland Department of the Environment
> 1800 Washington Boulevard, Baltimore, Maryland 21230
> shannon.heafey@maryland.gov
> 410-537-4433
>
> On Fri, Jan 17, 2025 at 7:30 AM Roger B WOOLEYHAN <4wooleys@msn.com> wrote:
> > Dear Public Service Commission,
> >
> > I oppose all 3 air quality related permits in consideration.
> >
> > Air pollution from the US Wind Project will come from the following sources:
> >
> > o Marine vessels used during construction (47)
> >
> > o Marine vessels used for operations/maintenance (10)
> >
> > o Diesel generators located at the four offshore power substations (4)

The proposed permits allow US Wind to produce the following levels of Emissions each

year during the initial 3 years of construction and operations:

o 616 tons of NOx (nitrous oxides

o 149 tons of CO (carbon monoxide)

o 39 tons of PM-10/2.5 (particulate matter)

o 11 tons of VOC (Volatile Organic Compounds)

o 2 tons of SO2 (Sulphur dioxide)

Thank you for this opportunity to comment.
Sincerely, Elizibeth Wooleyhan
Watermen's Association of Worcester County

Sent from my iPhone

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Re: Air Quality permits

1 message

Roger B WOOLEYHAN <4WOOLEYS@msn.com> Fri, Jan 17, 2025 at 10:44 AM
To: Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Thank you Ms Heafey, yes please direct my email to
draft Air Quality Permit
for the
Department of the Environment's Air Quality Permits Program
Thank you , sincerely Roger Wooleyhan

Sent from my iPhone

On Jan 17, 2025, at 9:32 AM, Shannon Heafey -MDE- <shannon.heafey@maryland.gov> wrote:

Good Morning Mr. Wooleyhan,

Your email is addressed to the Public Service Commission, not to the Department of the Environment. If you intended to submit this email as formal testimony for the draft Air Quality Permit for the Department of the Environment's Air Quality Permits Program, please let me know.

Thank you,
Shannon Heafey

Shannon Heafey Public Participation Coordinator
Air Quality Permits Program, Air and Radiation Administration
Maryland Department of the Environment
1800 Washington Boulevard, Baltimore, Maryland 21230
shannon.heafey@maryland.gov
410-537-4433

On Fri, Jan 17, 2025 at 7:27 AM Roger B WOOLEYHAN <4wooleys@msn.com> wrote:

Dear Public Service Commission

I oppose all 3 air quality related permits in consideration.

Air pollution from the US Wind Project will come from the following sources:

o Marine vessels used during construction (47)

o Marine vessels used for operations/maintenance (10)

o Diesel generators located at the four offshore power substations (4)

The proposed permits allow US Wind to produce the following levels of Emissions each

year during the initial 3 years of construction and operations:

o 616 tons of NOx (nitrous oxides

o 149 tons of CO (carbon monoxide)

o 39 tons of PM-10/2.5 (particulate matter)

o 11 tons of VOC (Volatile Organic Compounds)

o 2 tons of SO2 (Sulphur dioxide)

Thank you, I appreciate the chance to comment.

Sincerely, Roger B Wooleyhan with
The Watermen's Association of Worcester

Sent from my iPhone

LAW OFFICES OF STEPHANI J. BALLARD, LLC
100 ROCKLAND ROAD
P.O. BOX 614
MONTCHANIN, DE 19710

PHONE: (302) 379-9549

FAX: (302) 504-4789

EMAIL: SJBALLARD@COMCAST.NET

STEPHANI J. BALLARD, ESQUIRE

March 7, 2025

Ms. Shannon Heafey via email: shannon.heafey@maryland.gov
Maryland Department of Environment

RE: Comments re: Application for Air Quality Permit by US Wind

I am a Delaware resident and property owner in North Bethany Beach, Delaware, within the scope of the area directly affected by the proposed Maryland Offshore Wind/US Wind Project, which has sought, and is required to obtain, various federal, state and local permits. I have also previously filed comments, including to the DEIS, in the federal permitting process for this Project, as well as in related Delaware State and local proceedings. I am also an attorney specializing in administrative and regulatory law, land use, and government-related matters. Should the subject permit be granted, I reserve all applicable rights to file appeals or litigation on behalf of myself and/or other impacted parties.

1. Background and Procedural Posture of the Subject Application.

On August 5, 2022, US Wind (USW) initially filed a NOI with US EPA to apply for an Outer Continental Shelf (OCS) Air Permit – one of the required permits to obtain federal approval for the Project.[1] Federal action was "cancelled" and the permit application was redirected to the State of Maryland for action, as the EPA

[1] Federal Permitting Dashboard, https://www.permits.performance.gov/permitting-project/fast-41-covered-projects/maryland-offshore-wind-project

found the required Air Permit to be "attributable to the State of Maryland."[2] Air Quality permitting for certain states have been delegated by the OCS permitting program to certain states (DE and MD among them)). USW proceeded accordingly and applied to MD for the air quality permit on November 30, 2023 (electronic filing) and December 7, 2023 (hard copy filing). The USW application to MD, acknowledging the regulatory framework, and the fact that the application is subject to the statutory and regulatory requirements of the federal Clean Air Act (CAA), as well as MDDOE requirements, with Maryland being the EPA-delegated body for regulatory review.[3]

> The Clean Air Act at Section 328(a)(1) requires that the United States Environmental Protection Agency (USEPA) establish air pollution control requirements for OCS sources located within 25 NM of states' seaward boundaries that are the same as onshore requirements. USEPA's implementing OCS Air Regulations, found at 40 CFR Part 55, apply to all OCS sources in federal waters except those located in certain areas of the Gulf of Mexico. OCS sources located within 25 NM of a states' seaward boundaries are subject to the federal requirements set forth in 40 CFR Part 55.13 and the federal, state, and local requirements of the Corresponding Onshore Area (COA) set forth in 40 CFR Part 55.14. Maryland has been designated as the COA. Notable federal, state, and local requirements of the COA incorporated by reference into 40 CFR Part 55.13 and 55.14 that pertain to the OCS air permit application include New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAPs), Prevention of Significant Deterioration (PSD) review, Maryland Department of the Environment (MDE) air regulations at 26 Code of Maryland Air Regulations (COMAR), and Nonattainment New Source Review (NNSR). This OCS air permit application documents compliance with applicable air quality requirements incorporated into the OCS permitting program at 40 CFR Part 55. In accordance with 40 CFR 55.4, the USEPA has delegated the MDE authority to implement 40 CFR Part 55, which requires new OCS stationary sources to obtain a permit from MDE prior to commencing construction. A Notice of Intent (NOI) for the Project was submitted to the USEPA and MDE on August 5, 2022, which is included in the Agency correspondence in Appendix B-1.

[2] Id.

[3] Maryland Offshore Wind Project OCS Air Permit Application (November 2023), pp. 1-1; 3-1.

3.0 REGULATORY REQUIREMENTS

Section 328(a) of the Clean Air Act requires that USEPA establish air pollution control requirements for OCS sources located within 25 nautical miles of states' seaward boundaries that are the same as onshore requirements. This includes, but is not limited to, state and local requirements for emission controls, emission limitations, emission offsets, permitting, monitoring, testing, and reporting. The purpose of this requirement is to attain and maintain Federal and State ambient air quality standards. USEPA's OCS implementing regulations, found at 40 CFR Part 55, apply to all OCS sources offshore of the states except those located in certain areas of the Gulf of Mexico.

OCS sources located within 25 NM of a States' seaward boundaries are subject to the Federal requirements set forth in 40 CFR Part 55.13 and the Federal, State, and local requirements of the COA set forth in 40 CFR Part 55.14. Because the Project's WDA is located on the OCS within 25 NM of Maryland's seaward boundary, the Project is subject to the applicable requirements of the most current Maryland Air Regulations that are listed in Appendix A of the OCS Air Regulations. Notable federal, state, and local requirements of the COA incorporated by reference into 40 CFR Part 55.13 and 55.14 include NSPS, PSD review, and NNSR review.

Similarly, the State of Maryland (DOE), in its Air Quality Permit-to-Construct Fact Sheet and Draft Permit acknowledges the applicable federal CAA laws and that it is acting as the federal delegee for purposes of the AQ permit:

II. PROJECT DESCRIPTION

In accordance with 40 CFR, Part 55, air pollution emissions generated from the construction, commissioning, operation, maintenance, and decommissioning of offshore wind turbine generators on the OCS are regulated under the Clean Air Act and subject to air quality permit requirements. The U.S. EPA has delegated authority to the State of Maryland to issue air permits for OCS projects for which Maryland is the corresponding onshore area (COA).

2. <u>The Permit before this Agency may not be granted because such permits must, pursuant to the Clean Air Act, be granted or denied no later than one year after the application is deemed complete. The current permit Application is now time barred.</u>

By federal statute, the Clean Air Act provides that air quality permits must be granted or denied "**not later than one year"** after the application is deemed "complete."

(c) Permit applications

Any completed permit application under section 7410 of this title for a major emitting facility in any area to which this part applies shall be granted or denied *not later than one year after the date of filing of such completed application*.

42 U.S.C.A. § 7475 (West) (Preconstruction Requirements) [CAA §165(c)] (emphasis added).

The EPA and BOEM, in their guidance on OCS permitting, recognize this one-year deadline.[4]

- By statute (CAA § 165(c)), the permitting authority has 1-year from the date that the permit application is determined complete to grant or deny the final permit. This is particularly relevant for those permits that are subject to the PSD preconstruction permitting requirements. For Title V operating permits, a final permit decision must be made within 18 months after the date the application is determined complete. Where an OCS permit addresses multiple requirements (PSD, Title V, etc.) we usually seek to make that final decision as early as possible.
- Once the permitting authority has all necessary information and determines the permit application complete, the permitting authority will begin to evaluate the permit application. If additional information is necessary during that evaluation, the permitting authority will request that information from the permit applicant.

The relevant dates concerning this application are as follows:

- US Wind submitted NOI for Air Permit to EPA on 8/5/22
- EPA "cancelled" action based on authorization being identified as attributable to MDDOE, on or about 7/7/23
- USW submitted its Air Quality Permit application to Maryland DOE 11/30/23, with hard copy follow up on 12/7/23
- **The OCS Air Permit Application was deemed "administratively complete on Jan. 4, 2024"[5]**

[4] https://www.epa.gov/system/files/documents/2024-07/outer-continental-shelf-air-permitting-seminar-2.26.24-notes.pdf

[5] Appendix A, Required Environmental Permits and Consultations, BOEM FEIS, Volume 1, BOEM 2024-024, Docket Number: BOEM. (linked on Maryland DOE permit page). https://mde.maryland.gov/programs/permits/AirManagementPermits/Documents/US%20Wind/2%20-%20Maryland%20Offshore%20Wind%20Final%20EIS_%20AppA_RequiredPermits_2024_30Aug2024.pdf

Agency/Regulatory Authority	Permit/Approval	Status
State of Maryland		
Maryland Department of Environment (MDE) (delegated authority from U.S. Environmental Protection Agency)	Outer Continental Shelf (OCS) Clean Air Act Permit	US Wind submitted an OCS Air Permit Application on August 17, 2023. Alternative Model Requested approved by MDE on September 11, 2023. OCS Air Permit Application deemed administratively complete on January 4, 2024.

Pursuant to the statutory deadline imposed by the Clean Air Act, the final Air Quality Permit and related permits for this project were required to be granted or denied **no later than January 4, 2025.** It is undisputed that no final permits have been issued as indeed, as of January 4, 2025, the public comment and review period was (and is still) ongoing.[6]

While this agency did post a "draft/tentative" permit and approval document sometime prior to 1/4/25 (the relevant documents on the MD permitting site are undated), they remain in "draft" form, and unsigned, and in no way can be considered "final" approvals. Additionally, pursuant to COMAR §26.11.02.11, if the "Department receives adverse comments, it must review and address them and then is required to prepare a "final determination" as to whether to issue or deny the permit. In other words, in cannot simply adopt the "draft" permit as the final permit. Adverse comments, including these comments, have been received, and remain unaddressed.[7] Again, it is undisputed that no final determination was issued by the January 4, 2025 statutory deadline.

The one-year limitations period to act on an OCS Air Quality permit is strict, clear and unambiguous. If the intent of Congress is clear, that is the end of the matter; for . . . the agency, must give effect to the unambiguously expressed intent of Congress. *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837,

[6] A public hearing was held, at which comments in opposition to the application were received, on January 9, 2025, and the public comment period for written comments remains open until March 17, 2025.

[7] COMAR provides that the "Department shall consider all public comments that raise issues of law or material fact regarding an application for a permit or a tentative determination, but only if the issues are pertinent to requirements of the Clean Air Act . . . ."

842–43, 104 S. Ct. 2778, 2781, 81 L. Ed. 2d 694 (1984), *overruled on other grounds by Loper Bright Enterprises v. Raimondo*, 603 U.S. 369, 144 S. Ct. 2244, 219 L. Ed. 2d 832 (2024).

There is nothing in COMAR 26.11.02, or other Maryland law, that would supersede or modify the EPA's 1 year deadline for action on a permit application, and any such provision would be subordinate to the federal law in any event. As an EPA delegee for purposes of the OCS Air Quality Permit, this body has only those powers set forth and delegated by the federal statutes it is administering.

For the foregoing reasons, **MDDOE must dismiss and/or administratively deny** the current US Wind application for Air Quality and related construction permit(s), as it is statutorily time-barred and cannot lawfully be granted. Any attempt by this body to do, following the expiration of the one-year deadline, so would be *ultra vires* and void.

Respectfully submitted,

/s/ Stephani Ballard Wagner

Stephani J. Ballard Wagner

MARY BETH CAROZZA
Legislative District 38
Somerset, Wicomico,
and Worcester Counties

Education, Health, and Environmental Affairs
Committee

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11 Bladen Street, Room 314
Annapolis, Maryland 21401
410-841-3645 · 301-858-3645
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THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

January 7, 2025

The Honorable Selena McIlwain
Secretary, Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

Dear Secretary McIlwain:

Thank you for the opportunity to offer comments regarding US Wind's air quality permit application for the construction and operation of its Maryland Offshore Wind Project consisting of 121 wind turbine generators, up to four offshore substations, and one meteorological tower to be located 10 miles off the coast of Worcester County, Maryland.

As wind turbines have been installed in other locations, mostly in Europe, over time it is possible to gather quantitative information on their various impacts.

We now know that offshore wind turbines are subject to the "wake effect" which creates less energy in the airflow downwind than the airflow upwind. As turbines are in rows, each turbine reduces the airflow available to the one behind it. Not only does this reduce energy plume making the project inefficient, it increases the ozone levels in the surrounding area as ozone levels increase when airflow is reduced.

It is imperative that the Maryland Department of the Environment review the significance of the negative impact of the "wake effect" from the offshore wind turbines and respond to the following questions.

Is the negative impact of the "wake effect" from offshore wind turbines enough to justify the denial of this air quality permit?

What is the amount of increase in ozone levels?

Is it impacted by water salinity, current speed, ambient temperature, average wind speed, number and position of turbines, or distance between them?

In addition, multiple questions have been raised regarding the number of vessels that US Wind plans to use for the construction, operation, and maintenance of its offshore wind energy project.

Given these serious questions and unresolved issues, I believe it would be irresponsible for the Maryland Department of the Environment to rush to approve US Wind's air quality permit for this project.

My constituents and taxpayers across the State of Maryland have pointed out how dismayed they would be to discover that the proposed offshore wind energy solution for increased clean energy would actually be the cause for increased ozone with its many negative health effects.

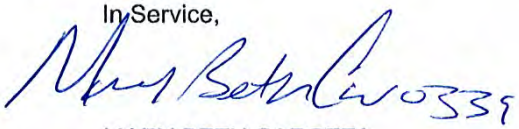
As the sole State Senator representing Maryland's Coast and Maryland's only ocean beach town, I consistently have maintained that insufficient research and data collection are being used to justify moving forward with a project that will have long-range negative impacts on the environment, marine life, commercial fishing, and the hospitality industry at an enormous cost to Maryland's ratepayers and taxpayers at a time when Maryland faces a budget crisis.

The opposition to US Wind's proposed offshore wind energy project continues to mount with a working coalition made up of local residents and visitors, commercial watermen, boaters, environmentalists, hotel, motel and restaurant operators, small business owners and their employees, elected officials at every level of government, and a growing number of concerned Maryland residents and their families who have been enjoying their family vacations on Maryland's Coast for generations and are joining the fight to protect our Shore way of life.

We urge the leadership of the Maryland Department of the Environment and all of Governor Wes Moore's Administration to hear and respond to our voices.

Thank you for your kind consideration of my testimony.

In Service,



MARY BETH CAROZZA
State Senator -District 38
Worcester, Wicomico, Somerset

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

U.S. Wind Inc. Maryland Offshore Wind Project

1 message

Sal Giordano <mrgiordano1075@gmail.com> Fri, Jan 10, 2025 at 12:13 PM
To: Shannon.heafey@maryland.gov

Dear Ms. Heafey,

I am writing to express my deep concerns regarding the proposed installation of wind turbines off the east coast of Ocean City, Maryland. While renewable energy is an important component of sustainable development, the specific location and impact of these turbines raise several critical issues that must be addressed. I urge you to reconsider this project due to its significant environmental, economic, and aesthetic drawbacks.

Environmental Impacts

The construction and operation of offshore wind turbines pose serious threats to marine ecosystems. The seabed disruption caused during the installation process can harm vital benthic habitats that support a diverse range of marine life. Ocean City's coastal waters are home to various fish species, shellfish, and migratory birds, many of which could be negatively affected by noise pollution, vibrations, and electromagnetic fields generated by the turbines. Additionally, studies have shown that wind farms can alter the natural migratory patterns of birds and marine mammals, increasing their risk of injury or death.

The long-term maintenance of these structures may also introduce pollution risks from potential oil and lubricant leaks. Furthermore, decommissioning outdated turbines creates another environmental challenge, as the disposal of turbine blades and other components often generates substantial waste that is difficult to manage.

Economic Concerns

Ocean City's economy relies heavily on tourism and recreational activities, including fishing, boating, and beachgoing. The visual impact of towering wind turbines, some reaching over 600 feet tall, could significantly diminish the natural beauty of the coastline, deterring visitors and damaging the town's tourism-dependent businesses. Studies from other coastal communities have shown a decline in property values and tourist interest when large-scale wind projects disrupt scenic ocean views.

The fishing industry, another cornerstone of the local economy, also faces potential threats. Changes in marine habitats, increased boat traffic, and restricted fishing zones near turbine areas could lead to reduced fish stocks and limit access for commercial and recreational fishermen, further impacting livelihoods.

Aesthetic and Cultural Considerations

The iconic, unobstructed ocean views of Ocean City are a cherished aspect of its cultural identity and appeal. Wind turbines visible from the shore could alter this landscape, turning serene seascapes into industrial zones. For generations, residents and visitors have enjoyed the pristine beauty of these beaches, and preserving this natural asset is critical to maintaining Ocean City's charm and economic vitality.

Alternatives to Consider

Rather than jeopardizing Ocean City's marine environment and tourism-driven economy, resources could be directed toward alternative renewable energy projects that have fewer localized impacts. Solar energy initiatives and land-based wind farms in less sensitive areas offer promising opportunities for sustainable development without compromising the natural beauty and ecological integrity of our coastal waters.

In conclusion, while renewable energy is essential for a sustainable future, the proposed wind turbine project off the coast of Ocean City poses too many significant risks to the environment, economy, and cultural landscape. I strongly urge decision-makers to explore alternative solutions that balance renewable energy goals with the preservation of Ocean City's unique and valuable resources.

Thank you for considering these important concerns. I hope that thoughtful reconsideration will lead to a more balanced and sustainable path forward.

Sincerely,
Salvatore Giordano

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Off Shore Wind

1 message

Tony Matrona <tonymatrona@comcast.net> Tue, Jan 21, 2025 at 11:52 AM
To: "shannon.heafey@maryland.gov" <shannon.heafey@maryland.gov>

Offshore wind is wrong for MD and Wrong for USA
1. Most expensive energy.
2. Not reliable
3. Requires massive Government subsidies.
4. Not better for environment, harmful to birds and whales.
5. Destroys ocean vista's.
6. Windmills don't last more than 10 or 20 years.

Tony Matrona
Berlin, MD

Maryland

Mario Cora -MDE- <mario.cora@maryland.gov>

US Wind comments - draft PSD approval

1 message

Jodziewicz, Laurie <l.jodziewicz@uswindinc.com> Fri, Jan 24, 2025 at 11:40 AM
To: Shannon Heafey -MDE- <shannon.heafey@maryland.gov>
Cc: "mario.cora@maryland.gov" <mario.cora@maryland.gov>, "suna.sariscak@maryland.gov" <suna.sariscak@maryland.gov>, Lian Zhuang -MDE- <lian.zhuang@maryland.gov>, "Sumner, Todd" <t.sumner@uswindinc.com>, "Feinblatt, Michael" <mfeinblatt@trccompanies.com>, "Ometz, Darin" <DOmetz@trccompanies.com>

Dear Ms. Heafey,

Please see the attached comments from US Wind on the draft Prevention of Significant Deterioration Tentative Determination and Approval. We look forward to working with the Department to clarify any questions regarding our comments. Please do not hesitate to contact me.

Sincerely,

Laurie Jodziewicz

US Wind
Fueling our future, naturally.

Laurie Jodziewicz *(she/her)*

Vice President, Environmental Affairs

401 East Pratt Street, Suite 1810

Baltimore, MD 21202

410-340-9428 (cell)

l.jodziewicz@uswindinc.com

2025-01-24 US Wind Maryland_OCS Air Permit_Permit Comments_final.pdf
375K

January 24, 2025

Ms. Shannon Heafey
Public Information Officer
shannon.heafey@maryland.gov
Maryland Department of the Environment
1800 Washington Blvd.
Baltimore, MD 21230

Re: Comments on MDE draft PSD, NSR and Permit-to-Construct Permits
Maryland Offshore Wind Project – US Wind, Inc.

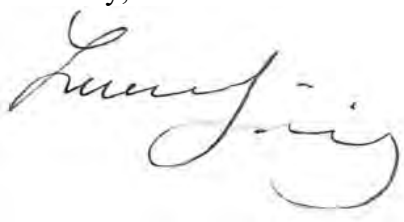
Dear Ms. Heafey:

The purpose of this letter is to provide comments on the draft PSD, NSR and Permit-to-Construct permits for the US Wind, Inc. (US Wind) Maryland Offshore Wind Project (the Project) that the Department issued for a 30-day public review on December 5, 2024. The public comment period has since been extended for an additional 60 days, to March 17, 2025.

US Wind is providing the attached comments to the draft PSD approval. In addition to the PSD approval, US Wind requests that the Department incorporate the comments into the draft PSD approval fact sheet. The modeling files will be transmitted electronically under separate cover.

We look forward to working with you to address these comments. Please contact me at 410-340-9428 or l.jodziewicz@uswindinc.com if you have any questions regarding these responses.

Sincerely,



Laurie Jodziewicz
Vice President, Environmental Affairs
US Wind, Inc.

Enclosures: US Wind Comments on the draft PSD Approval for the Maryland Offshore Wind Project

cc: Todd Sumner, US Wind
Michael Feinblatt, TRC Companies
LiAn Zhuang, Air Quality Modeler, Modeling and Analysis Division

Maryland Offshore Wind Project - US Wind, Inc.
Comments on the Draft PSD Approval issued December 5, 2024

Comment 1. PART D – EMISSIONS RESTRICTIONS – Table 4

The draft PSD approval includes Table 4, which provides total daily emissions limits, expressed as tons per day (tpd) derived from the emissions modeled in the application to ensure compliance with the NAAQS and PSD increments.

US Wind prepared supplemental NAAQS and PSD increment analyses as detailed in Comment 2. The supplemental NAAQS and PSD increment analysis expanded the modeling analysis to include simultaneous (i.e., cumulative) operation of vessels from separate operations.

Based on the supplemental NAAQS and PSD increment analyses, US Wind requests the following revisions to Table 4 for construction time periods that include both the OSS Installation and Commissioning Periods, which in Table 1A grouped vessels for both periods that otherwise would not occur simultaneously in a 24-hour (daily) period.

Note that US Wind is also requesting revisions to the daily limits during O&M. The daily limits for NO_x and CO in the draft PSD approval are not inclusive of vessel transit, which has higher emissions than from maneuvering. The table of emissions calculations to derive the proposed daily emission limits is provided electronically with the supplemental NAAQS and PSD increment modeling files included in Comment 2.

Table 4 – Daily Emissions Limits Pollutant Maximum C&C and O&M (tpd)

Pollutant	Maximum C&C during OSS Installation Periods[1] combined with O&M (tpd)	Maximum C&C during OSS Commissioning Periods[2] combined with O&M (tpd)	O&M (tpd)
NO_2	30.06	29.54	4.52
CO	3.37	3.89	0.59
PM-10	0.32	0.28	0.06
PM-2.5	0.31	0.27	0.05

1. OSS Installation Period consists of the following: Scour protection installation, WTG Installation, WTG Commissioning, OSS Installation (the Vessels listed as OSS Installation Vessels in Table 1A, excluding the Refueling Offshore Service Vessel and Hotel Jack-up Vessel), Inter-Array Cable Installation, Offshore Export Cable Installation; and O&M activities.
2. OSS Commissioning Period consists of the following: Foundation Installation, Scour protection installation, WTG Installation, WTG Commissioning, OSS Commissioning (the Vessels listed as OSS Installation Vessels in Table 1A, excluding the Heavy Lift Vessel, Tug, Topside Tug, Noise Mitigation Offshore Service Vessel, and Acoustic Monitoring Offshore Service Vessel), Inter-Array Cable Installation, Offshore Export Cable Installation; and O&M activities.

As described in detail in Comment 2, the revised daily limits in Table 4 above allow for certain activities to occur no closer than 2 km during OSS Installation Periods and a small subset of

activities during OSS Commissioning Periods to occur simultaneously at the same location while other activities would still occur no closer than 2 km from one another.

In summary, US Wind requests the revisions to Table 4 in the draft PSD approval based on the results of the modeling for simultaneous operations during the OSS Installation and OSS Commissioning Periods that are detailed below in Comment 2. The proposed values in Table 4 are based on the supplemental NAAQS and PSD increment modeling analyses and the detailed tables of daily emissions to determine the maximum ambient concentrations. The proposed tables of daily emissions are based on the supplemental modeling files and are available electronically by request. Note that the requested values in Table 4 are significantly greater than the current limits in the draft PSD approval. The limits in Table 4 of the draft PSD approval are based on only a single operation (i.e., Foundation Installation) and include vessels when operating in a maneuvering mode when near to an OSS or WTG. The proposed Table 4 limits include the nine (9) operations discussed in the footnotes to Table 4 (and Table 1A of the draft PSD approval) and the contributions from both vessel transit and maneuvering modes of operation. The supplemental modeling detailed in Comment 2 demonstrates compliance with the NAAQS and PSD increments with the proposed limits in Table 4.

Comment 2. PART E – OPERATING AND MONITORING REQUIREMENTS

Part E(3) of the PSD approval specifies:

> "To ensure compliance with the NAAQS and PSD increments and total daily emissions limits in Part D(2), Table 4 of this Approval, only vessels for one of the following operations may be operated simultaneously **unless the Permittee can demonstrate, by conducting additional emissions modeling approved by the Department, compliance at other operating conditions**: Foundation Installation, WTG Installation, WTG Commissioning, OSS Installation, Interarray Cable Installation, Export Cable Installation, and O&M. [**emphasis added**]"

As discussed in Comment 1, US Wind prepared supplemental NAAQS and PSD increment analyses to demonstrate compliance with the NAAQS and PSD increments for simultaneous (i.e., cumulative) operation of vessels from separate operating conditions. As the PSD Fact sheet notes on Page 13, "vessels used for each of the following operations may not be operated simultaneously unless the Permittee can ensure compliance at other operating conditions: Foundation Installation, WTG Installation, WTG Commissioning, OSS Installation, Interarray Cable Installation, Export Cable Installation, and O&M."

Based on the supplemental modeling analysis detailed below, US Wind requests the following revisions to the PSD approval conditions.

<u>Proposed PSD Approval Conditions to Part E - (3), (4), and (5)</u>

> (3) To ensure compliance with the NAAQS and PSD increments and total daily emissions limits in Part D(2), Table 4 (Maximum C&C during OSS Installation Periods combined with O&M) of this Approval, vessels from the following operations may be operated simultaneously when located greater than 2 km away from a separate operation: WTG Installation, Scour Protection Installation, WTG Commissioning, OSS Installation (the

Vessels listed as OSS Installation Vessels in Table 1A, excluding the Refueling Offshore Service Vessel and Hotel Jack-up Vessel), Inter-array Cable Installation, Export Cable Installation, and O&M. The separation distance shall be calculated based on the GPS coordinates of the center point of each operation (e.g., the monopile foundation attached to OCS).

(4) To ensure compliance with the NAAQS and PSD increments and total daily emissions limits in Part D(2), Table 4 (Maximum C&C during OSS Commissioning Periods combined with O&M) of this Approval, vessels from the following operations may be operated simultaneously when located greater than 2 km away from a separate operation: Foundation Installation, WTG Installation, Scour Protection Installation, WTG Commissioning, OSS Commissioning (the Vessels listed as OSS Installation Vessels in Table 1A, excluding the Heavy Lift Vessel, Tug, Topside Tug, Noise Mitigation Offshore Service Vessel, and Acoustic Monitoring Offshore Service Vessel), Inter-array Cable Installation, Export Cable Installation, and O&M. Vessels associated with OSS Commissioning specified above and Export Cable Installation or Inter-array Cable Installation may be operated simultaneously at distances less than 2 away from each other. The separation distance shall be calculated based on the GPS coordinates of the center point of each operation (e.g., the monopile foundation attached to OCS).

(5) With submittal of the Report in condition C(3), which defines each vessel contracted, each anticipated representative vessel, and each marine and non-marine engine to be used during the initial C&C and O&M of the Maryland Offshore Wind Project, permittee may provide additional modeling for NAAQS and PSD increment compliance, upon approval from the Department, for simultaneous operations at distances less than 2 km.

Supplemental Modeling Analysis

US Wind prepared supplemental NAAQS and PSD increment analyses by expanding the modeling analysis summarized in the PSD Permit Fact Sheet to include simultaneous (i.e., cumulative) operation of vessels from separate operations.

The WTGs and OSS locations are separated by 1.4 km (East-West) and 1.9 km (North-South) in a grid pattern. With the proposed permit conditions in Conditions (3) and (4), US Wind would restrict the simultaneous operation of multiple operations to occur at locations separated by a minimum distance of 2 km. In practice, these permit conditions will restrict simultaneous operation of adjacent operations. Thus, the supplemental modeling analysis for simultaneous operation of multiple construction and O&M operations was based on the 2 km restriction and vessel source locations using a grid spacing of 1.4 km (East-West) and 1.9 km (North-South). The modeled receptor grid for Class II modeling discussed in the PSD Permit Fact Sheet on Page 15 was expanded to include additional receptors placed at the 500-meter exclusion zone from each construction and O&M operation for the purposes of modeling the maximum individual and cumulative impact locations from the multiple operating scenarios. Note that the maximum modeled impact was located at or less than 500 meters from the individual operations as noted in the OCS air permit application. Consistent with the PSD Permit Fact Sheet for the O&M

operations, supplemental receptors were placed within 500 meters from O&M operations as the exclusion zone will not be enforced for O&M activities.

An exception to the 2 km separation for operating conditions is the expectation for simultaneous operation of vessels associated with OSS Commissioning and Export Cable Installation or Inter-array Cable Installation. The modeling analysis for the OSS Commissioning Period included collated simultaneous operation of the cable installation vessels. Note that Export Cable Installation operations and Inter-array Cable Installation operations would not occur simultaneously with OSS Commissioning at the same OSS location.

As discussed in the draft PSD Approval and Tentative Determination Fact Sheet on Page 14, in its refined modeling for operations, US Wind adjusted the modeling for 1-hour NO_2 and 24-hour PM to only include those vessels and engines that would be expected to operate together over an hourly or daily basis. As such, US Wind's construction management team prepared a matrix of emission sources and operating scenarios that may be operated simultaneously. Tables A-1 and A-2 provide a detailed list of emission sources and operating scenarios for the 1-hour NO_2 and 24-hour PM2.5/PM10 averaging periods. Note that the 1-hour and 8-hour CO averaging period modeling conservatively included all of the emission sources associated with each operation. This matrix was based on US Wind's construction management team's determination of the feasibility that a vessel may be in operation simultaneously with another vessel, while taking into consideration need, availability, logistics, and security. For example, foundation installation operations would not occur simultaneously with OSS installation operations. Oftentimes, US Wind determined that a duplicate vessel type could be excluded from the modeling analysis for short-term averaging periods during simultaneous construction and commissioning and O&M operations.

Based on US Wind's assessment of simultaneous operations, there are two (2) distinct periods of construction that are delineated by either OSS Installation or OSS Commissioning Periods. The potential simultaneous operations during these two (2) periods are provided below. These two periods were modeled as separate sets of simultaneous operations as part of the supplemental NAAQS and PSD increment analyses to ensure compliance with the NAAQS and PSD increments for simultaneous operation of vessels from separate operating scenarios.

OSS Installation Period – Simultaneous Operations

- Scour protection installation;
- WTG Installation;
- WTG Commissioning;
- OSS Installation;
- Inter-Array Cable Installation;
- Offshore Export Cable Installation; and
- Overlapping O&M activities.

OSS Commissioning Period – Simultaneous Operations

- Foundation Installation;
- Scour protection installation;
- WTG Installation;
- WTG Commissioning;

- OSS Commissioning;
- Inter-Array Cable Installation;
- Offshore Export Cable Installation; and
- Overlapping O&M activities.

US Wind prepared supplemental NAAQS and PSD Increment modeling analyses for the OSS Installation and Commissioning Periods described above to ensure compliance during simultaneous operations. The results of the NAAQS modeling analysis for each OSS Installation or Commissioning Periods are presented in Table 1. As shown in Table 1, the Project impacts, plus background, do not exceed or threaten to exceed the NAAQS.

The results of the PSD Class II increment analysis are provided in Table 2 and demonstrate that the simultaneous operation of multiple construction and O&M operations would not cause or contribute to air pollution in violation of any of the applicable PSD II increments. Similarly, the Class I increment analysis results are provided in Table 3 and demonstrate that the Project impacts are well below the Class I increments with simultaneous operation of multiple construction and O&M operations.

All modeling data files for the modeling analyses and tables of daily emissions to determine the maximum ambient concentrations are available electronically upon request.

Table 1: Maximum Modeled Concentrations for Comparison to NAAQS

Pollutant	**Averaging Period**	**Scenario**	**NAAQS**	**Background**	**Maximum Modeled NAAQS Concentration**	**Total NAAQS Concentration with Background**
CO	1-Hour	Simultaneous Operation – OSS Installation Periods	40,000	2,070	668.8	2,738.8
		Simultaneous Operation – OSS Commissioning Periods			669.5	2,739.5
	8-Hour	Simultaneous Operation – OSS Installation Periods	10,000	1,495	289.2	1,784.2
		Simultaneous Operation – OSS Commissioning Periods			289.2	1,784.2
NO_2	1-Hour	Simultaneous Operation – OSS Installation Periods	188	Variable by Season and Hour of Day	145.7	179.9
		Simultaneous Operation – OSS Commissioning Periods			144.2	181.3
PM2.5	24-Hour	Simultaneous Operation – OSS Installation Periods	35	18	4.5	22.5
		Simultaneous Operation – OSS Commissioning Periods			4.4	22.4
PM10	24-Hour	Simultaneous Operation – OSS Installation Periods	150	44	8.2	52.2

Pollutant	Averaging Period	Scenario	NAAQS	Background	Maximum Modeled NAAQS Concentration	Total NAAQS Concentration with Background
		Simultaneous Operation – OSS Commissioning Periods			10.0	54.0

Note: All concentration in units of ug/m^3.
PM2.5 impacts include secondary formation.

Table 2: Maximum Modeled Concentrations for Comparison to PSD Class II Increments

Pollutant	Averaging Period	Scenario	Class II Increment	Maximum Modeled Increment Concentration	Exceed Increment?
PM2.5	24-Hour	Simultaneous Operation – OSS Installation Periods	9	7.1	NO
		Simultaneous Operation – OSS Commissioning Periods		7.8	NO
PM10	24-Hour	Simultaneous Operation – OSS Installation Periods	30	7.3	NO
		Simultaneous Operation – OSS Commissioning Periods		8.0	NO

Note: All concentration in units of ug/m^3.
PM2.5 impacts include secondary formation.

Table 3: Maximum Modeled Concentrations for Comparison to PSD Class I Increments

Pollutant	Averaging Period	Scenario	Class I Increment	Maximum Modeled Increment Concentration	Exceed Increment
PM2.5	24-Hour	Simultaneous Operation – OSS Installation Periods	2	0.35	NO
		Simultaneous Operation – OSS Commissioning Periods		0.31	NO
PM10	24-Hour	Simultaneous Operation – OSS Installation Periods	8	0.33	NO
		Simultaneous Operation – OSS Commissioning Periods		0.29	NO

Note: All concentration in units of ug/m^3
PM2.5 impacts include secondary formation.

Comment 3. PART G – REPORTING AND RECORDKEEPING REQUIREMENTS

As discussed in Comment 2, US Wind prepared supplemental NAAQS and PSD increment analyses to ensure compliance with the NAAQS and PSD increments for simultaneous (i.e.,

cumulative) operation of vessels from separate operating conditions. To ensure compliance with proposed conditions (3) and (4) of comment 2, US Wind requests the following additional PSD monitoring and record keeping permit condition.

Proposed PSD Permit Conditions (1)(j).

(1)(j) For each vessel deployed during C&C and/or O&M, the Permittee shall record on a daily basis, the GPS coordinates of the center point of the operation (e.g., the monopile foundation attached to OCS) from the list of the following operations: Foundation Installation, Scour Protection Installation, WTG Installation, WTG Commissioning, OSS Installation, OSS Commissioning, Inter-array Cable Installation, Export Cable Installation, and O&M.

Table A-1: Matrix of Modeled Simultaneous Emission Sources and Operating Scenarios during OSS Installation Periods

Activity	**Representative Vessel Type**	**AERMOD ID**
Scour protection installation vessel	Fallpipe vessel	FV1
WTG installation jack-up vessel	Jack-up installation vessel	WV1
WTG installation Tug	Tug	WV2
Commissioning crew transfer vessel 1	Crew transfer vessel	CV1
Commissioning crew transfer vessel 2	Crew transfer vessel	CV2
Commissioning crew transfer vessel 3	Crew transfer vessel	CV3
OSS installation lift vessel	Heavy lift vessel	OV1
Assisting tug for OSS installation	Tug	OV2
OSS Jacket and piles transport tug	Tug	OV3
OSS Noise Mitigation Vessel	OSV	OV4
Array cable transport, pre- lay survey, lay and pull	Cable lay vessel	IV1
Offshore export cable pre-lay survey, trenching, cable lay and pull	Cable lay vessel	ECV1
Pre-lay grapnel run & pre-lay survey; post lay survey after completion	Multipurpose offshore support vessel	ECV2
Trenching vessel	Trenching Vessel	ECV3
HDD pull in lift vessel	Jack-up vessel	ECV4
Diving support for HDD pull in	Research / Survey	ECV5
HDD pull in support vessel	Multipurpose offshore support vessel	ECV6
Scour protection repair	Fallpipe vessel	OMV1
Main repair vessel	Jack-up vessel	OMV3
Survey work and cable survey/inspections	Multi-role survey vessel	OMV4
Daily crew transfer vessel	Crew transfer vessel	OMV6

Table A-2: Matrix of Modeled Simultaneous Emission Sources and Operating Scenarios during OSS Commissioning Periods

Activity	**Representative Vessel Type**	**AERMOD ID**
Scour protection installation vessel	Fallpipe vessel	FV1
Foundation installation vessel	Heavy lift vessel	FV2
Foundation tug	Tug	FV4
Noise mitigation vessel	OSV	FV8
Acoustic monitoring vessel	OSV	FV9
Environmental Vessel	Crew transfer vessel	FV10
WTG installation jack-up vessel	Jack-up installation vessel	WV1
Tug to transport WTG	Tug	WV2
Tug to support WTG Installation	Tug	WV4

Activity	Representative Vessel Type	AERMOD ID
Commissioning crew transfer vessel 1	Crew transfer vessel	CV1
Commissioning crew transfer vessel 2	Crew transfer vessel	CV2
Commissioning crew transfer vessel 3	Crew transfer vessel	CV3
Refueling operations to OSS and resupply to Hotel vessel	OSV	OV7
Crew Hotel Vessel	Jack-up vessel	OV8
Array cable transport, pre- lay survey, lay and pull	Cable lay vessel	IV1
Offshore export cable pre-lay survey, trenching, cable lay and pull	Cable lay vessel	ECV1
Pre-lay grapnel run & pre-lay survey; post lay survey after completion	Multipurpose offshore support vessel	ECV2
HDD pull in lift vessel	Jack-up vessel	ECV4
Diving support for HDD pull in	Research / Survey	ECV5
HDD pull in support vessel	Multipurpose offshore support vessel	ECV6
Scour protection repair	Fallpipe vessel	OMV1
Main repair vessel	Jack-up vessel	OMV3
Survey work and cable survey/inspections	Multi-role survey vessel	OMV4
Daily crew transfer vessel	Crew transfer vessel	OMV6

US Wind Air Quality Permit Public Hearing

Statement from Worcester County Chief Administrative Officer Weston Young

Jan. 9, 2025

Good evening, my name is Weston Young and I am the Chief Administrative Officer for Worcester County. I am a professional engineer and a member of MDE's Air Quality Control Advisory Council. What we have proposed here are permits that, if authorized, will allow the degradation of the air quality of Ocean City and Worcester County. We currently have no significant stationary emission sources in this area. The construction process and daily operations will add NOX and fine particulate to our air — the air our citizens and the 8 million visitors each year will breathe.

Further, in a November presentation in Salisbury, representatives from US Wind said the O&M facility proposed in the harbor will house 100 jobs. If you've been to the West Ocean City area and around the harbor, you're aware there are already parking and congestion concerns. Now add up to 100 more cars to the mix. This is not an insignificant increase in pollution either and will further expand the air quality impacts inshore.

Lastly, the wind does not always blow. What is powering all the homes that this project is allegedly supposed to power when nothing is being generated? The electrons will have to come from another power source, likely coal or natural gas generated power. So now, to power the homes that this project is supposed to power, at least two power generation systems have to be maintained, one supposedly green, one very likely not. This is inefficient and ineffective. This project is neither clean nor green. And, ultimately, it does not provide a single positive impact to our county, our citizens, or our visitors.

I ask that you deny these permits. I think a significantly more elaborate study needs to be performed that includes ALL the air quality impacts this project will bring. If you decide to move forward, I think any monitoring waivers should be denied and, given the project's timeline for completion, tier 5 emission reductions should be required on all boats, generators, and any other equipment, as those standards should be developed by then. Further, any and all offsets to be located in Worcester County. I thank you for your time and consideration.

US Wind Air Quality Permit Public Hearing

Statement from Worcester County Commissioner Joe Mitrecic

Jan. 9, 2025

My name is Joe Mitrecic and I'm speaking on behalf of the Worcester County Commissioners. We are opposed to the air quality permit and approvals sought by US Wind.

This project is doing nothing to improve local quality of life. While wind might be called clean energy, this project will bring pollutants to our air and water. The dozens of boats that will be required for construction and later maintenance and operations will produce hundreds of tons of nitrous oxide, contributing to smog and acid rain and potentially leading to algae blooms.

Construction won't last forever, but operations and maintenance will be required through the life of the turbines. Even when the turbines aren't operational, US Wind's boats will be. What does that mean for our residents? This project is already eliminating Worcester County's only remaining fish houses, crippling our commercial harbor, and is poised to drastically reduce tourism. If these latest approvals are granted, it will also be emitting nitrous oxide, carbon monoxide and greenhouse gasses in Worcester County. Where are our offsets?

If MDE moves forward with foolishly granting this permit and these approvals for US Wind, given the adverse local impacts no waivers should be granted. At a minimum, the state needs to mandate better controls and monitoring. The controls proposed are not enough to protect the local population from the impacts from this project. Worcester County will need increased air quality monitoring to ensure area residents aren't being unfairly burdened with the dirty side effects of clean energy.

DAVID D. QUILLIN ARCHITECTURE

DAVID D. QUILLIN, AIA, LEED BD&C ■ 5705 WATERSIDE DRIVE ■ BERLIN, MD 21811 ■ DAVIDDQUILLINARCHITECTURE.COM ■ DDQARCH@COMCAST.NET

10 January 2025

Ms. Shannon Heafey
Air and Radiation Administration
Maryland Department of the Environment
shannon.heafey@maryland.gov

Dear Ms. Heafey,

I am writing to say that I highly recommend that the MDE approve the air pollution permits applied for by U.S. Wind for their offshore wind turbine project.

It is clear from the MDE review of the application that U.S. Wind meets all of the requirements for issuance of the approval. The project appears to be in full compliance, pending monitoring and continued cooperation. I am happy that the State of Maryland requires strict environmental controls and specifications, and pleased to see that U.S. Wind is meeting them.

Your purview is to evaluate the technicalities. Beyond that, however, this project is critical to the health of our region, our oceans, and our planet. We must switch to renewables, which for now means either wind or solar. Solar energy is great, and should be on the roof of every building, but by itself it is not enough. We need wind energy as well, and the best, most efficient location for wind power is offshore.

We have to do this or face continuing rising seas, stronger storms, hotter temperatures, rising extinction rates.

Thank you for your consideration of these views.

David D. Quillin, AIA

DDQARCH@COMCAST.NET

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Fwd: US Wind air quality permit application in Worcester County, MD

1 message

Suna Yi Sariscak <suna.sariscak@maryland.gov> Mon, Jul 1, 2024 at 11:31 AM
To: Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Hi Shannon,

Please add this comment to our US Wind records. Thanks.

Suna Yi Sariscak
Manager, Air Quality Permits Program
Air and Radiation Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230
suna.sariscak@maryland.gov
410-537-4129 (O)
Website | Facebook | Twitter

---------- Forwarded message ---------
From: **Heather Nelson -MDE-** <hnelson@maryland.gov>
Date: Mon, Jul 1, 2024 at 11:27 AM
Subject: Fwd: US Wind air quality permit application in Worcester County, MD
To: Suna Sariscak -MDE- <suna.sariscak@maryland.gov>
Cc: Danielle Spendiff -MDE- <danielle.spendiff1@maryland.gov>

Hi Suna- This comment is specific to the air permit. Just passing it along to you. It was received as part of our most recent PN and Hearing for Coastal Zone Consistency. Maybe they just didn't update their template to CZM, but it said air permit, so passing on.

---------- Forwarded message ---------
From: **FederalConsistencyReview** <federalconsistency.review@maryland.gov>
Date: Mon, Jul 1, 2024 at 8:33 AM
Subject: Fwd: US Wind air quality permit application in Worcester County, MD
To: Heather Nelson -MDE- <hnelson@maryland.gov>, Danielle Spendiff -MDE- <danielle.spendiff1@maryland.gov>

---------- Forwarded message ---------
From: **Jacky Grindrod** <jacky.grindrod@mdsierra.org>
Date: Fri, Jun 28, 2024 at 7:22 PM
Subject: US Wind air quality permit application in Worcester County, MD
To: <federalconsistency.review@maryland.gov>

I write to express support for the air quality permit application filed by U.S. Wind to modify a certain dock in Ocean City, MD in connection with its plan to create a wind farm offshore from Ocean City.

This plan is good for the economy, and good for the health of the planet and its people:

"The Project has significant environmental benefits. Clean energy will displace that generated by higher-polluting fossil fuel-powered plants and result in a significant net reduction in emissions over the lifespan of the Project. At full buildout, the project could result in a net 139-million-ton reduction in CO2 emissions and will produce net clean energy after 1.5 months of operation. Over its lifespan, the project is expected to reduce nitrogen oxides by 67,003 tons, sulfur dioxide by 104,543 tons, and particulate matter by 12,014 tons. The Project is also expected to bring significant employment and other economic benefits to the region."

All of the above reflects the persuasive arguments of U.S. Wind, and I agree completely. Additionally, we really have no choice but to turn to solar, wind and, where least harmful, hydro energy to avoid mass immolation.

Respectfully.
Jacqueline Grindrod, J.D., Ph.D.
Berlin, MD

--

Heather L. Nelson
Program Manager
Wetlands and Waterways Protection Program
Water and Science Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230
hnelson@maryland.gov
410-537-3528 (O)
443-472-9970 (C)
Website | Facebook | Twitter

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

US Wind Permit Hearing 1/9/25

1 message

Kim Quillin <kim_quillin@comcast.net> Fri, Jan 10, 2025 at 9:33 AM
To: shannon.heafey@maryland.gov

Good morning Shannon,

Thank you so much for your team's excellent work on the Hearing yesterday. The instructions and process were very clear, and it was a great idea to provide an overview prior to comments. I appreciate your work!

I have attached my written comments; I riffed off of these yesterday but they are more or less the same.

All the best,
Kim

Kim Quillin
5705 Waterside Drive
Berlin, MD 21811
kim_quillin@comcast.net

Quillin Wind Hearing January 9 2025.docx
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Maryland Department of the Environment
Air and Radiation Administration
Re: US Wind Air Quality Permit Hearing at the Ocean City Convention Center (Rm 215)
January 9, 2025

My name is Kim Quillin. I am a biology professor and author at Salisbury University, but I am here representing myself as a local resident of the coast.

I've reviewed the US Wind Air Quality Permit Application through the lens of my work studying the current biodiversity and climate crises. We humans are causing **five** major threats to biodiversity (including right here in Ocean City): 1) habitat destruction and degradation; 2) invasive species and diseases; 3) overexploitation; **4) pollution**; and **5) climate change**. Today's hearing on US Wind's Air Quality Permit addresses the latter two threats.

I have two major takeaways from my review of the Air Quality Permit Application.

First, I am impressed with the **high bar of accountability** that the EPA and MDE set for its permit applicants. THANK YOU for these high standards for both the Construction and Commissioning phase and the Operations and Maintenance phase of the wind project, including ongoing record-keeping and reporting.

Second, while my default position from a biological perspective is to be very wary of any industrial proposal, the takeaway from this application is **overwhelmingly POSITIVE:** Yes, there will be emissions during the construction and operation of the project, but the wind turbines will enable a massive **NET REDUCTION** of particulate matter and greenhouse gasses compared to the status quo of burning fossil fuels, to the tune of **139 million tons of carbon avoided**.

To get my head around this big number, I used the EPA Greenhouse Gas Equivalencies Calculator to estimate, for example, that if we stuck with the high-pollution-fossil-fuel status quo, we'd have to plant about **77 million trees** to compensate for the carbon released, and this wouldn't even address the habitat destruction caused by fossil fuel extraction nor the increased morbidity and mortality of residents living near power plants caused by particulate matter, and so on.

So, I strongly support the approval of US Wind's Air Quality application to get this green energy source online in all haste.

On a PR note, I am dismayed by the pushback and misrepresentation of this project from many local leaders in Ocean City and Worcester County. What a lost opportunity. I spend most of my days with young adults who are heavily burdened with poor mental health in general, including climate anxiety---I suffer from this too. The solution? Action. Many of us are motivated to vote with our dollars to support businesses and lifestyles that are providing **SOLUTIONS**. Imagine if the local leaders used their PR effort to shout from the rooftops to residents and visitors:

- *Come enjoy the wind-powered energy on our coast!*
- *Smile when you turn on your kitchen lights!*
- *Be proud when you drop your children off at our clean-energy schools!*

Let's celebrate and promote the opportunity to use clean sources for the energy we use every day.

Thank you.
Kim Quillin, 5705 Waterside Drive, Berlin, MD 21811

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

off shore wind comments

1 message

Linda Bystrak <linda@bystrak.com> Fri, Jan 3, 2025 at 5:09 PM
To: "shannon.heafey@maryland.gov" <shannon.heafey@maryland.gov>

I have been advocating for years for offshore wind towers to be built off of the Maryland coast. Wind is a resource that we can use to supplement our current power sources. Other countries around the world are using more of it than the US. It is time to add more of it to our grid.

A year ago this month, my son and daughter in law found a dead whale on our coast. Cause of death appeared to be a collision with a large vessel. It is possible that the whale was headed for Delaware Bay where there are numerous refineries. Ships hauling oil are generally 70 feet deep. They usually unload their oil onto barges near the DE Bay entrance. My former neighbor was the foreman of the facility (Star/ Texaco). There are numerous other fossil fuel facilities along our East Coast.

I have been a birder my whole life, and have taken numerous pelagic trips. I know from experience that numerous species of birds are attracted to offshore buoys and structures. While some birds have collided with these objects, others have benefited from their presence.

Plans for these towers have included numerous warning devices to help protect the birds from collisions. I expect that there will be less dead animals found off our coasts If we substitute wind towers for refineries and oil tankers.

Retired Environmental Science Teacher

Linda Bystrak

1009 Riverhouse Dr. #6

Salisbury, MD 21801

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

off shore wind comments

1 message

- Lennart Elmlund <lennartgustaf@gmail.com> Fri, Jan 3, 2025 at 11:34 PM
To: shannon.heafey@maryland.gov

Dear Ms. Heafey,

I have been advocating for years for offshore wind turbines to be built off of the Maryland coast.

As you know, Maryland needs more sources of electricity to compensate for the closing of coal burning power plants.In addition, we as a modern society are facing increased demand for electricity due to more data centers being built and an increase from electric vehicles. Global warming increases the need for air conditioning over a longer period of time.

Plans for these towers have included numerous warning devices to help protect the birds from collisions. I expect that there will be less dead animals found off our coasts with more wind turbines

Your kind consideration of my request to allow wind turbines off the Maryland coast is much appreciated.

Sincerely,

Lennart Elmlund
Retired
P.O. Box 312
Mardela Springs, MD 21837

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Support for US Wind air quality permit

1 message

LarryDebbie <ldryan2@gmail.com> Wed, Jan 8, 2025 at 2:01 PM
To: shannon.heafey@maryland.gov

January 8, 2025

Shannon Heafey

Air and Radiation Administration
1800 Washington Boulevard
Baltimore, Maryland 21230

Dear Ms. Heafey,

After reading the entire US Wind permit application:

AIR QUALITY PERMIT TO CONSTRUCT TENTATIVE DETERMINATION AND FACT SHEET US WIND, INC. MARYLAND WIND OFFSHORE PROJECT ARA PREMISES NO. 047-0248 PERMIT NOs. 047-0248-9-0111 through 9-0114

It has become quite clear to me that through their due diligence, US Wind has provided an over and above commitment to be accountable to ensure the minimum amount of air pollution through the construction phase in the permitted area of the Maryland offshore wind farm.

Really, all I needed to hear was this: “when the project is completed, we anticipate a net *139-million-ton reduction in CO2 emissions* and net clean energy production within 2 months of operation.”

The permit application has made noticeably clear that through adherence to the commitment US Wind has made to air quality and the detailed monitoring of Best Available Control Technology (“BACT”). The expenditures required during the construction phase of the Maryland Offshore Wind farm will help yield incredibly significant long term air quality goal returns for all Marylanders.

I only wish that statements made, and information provided by opponents of offshore wind development would be as meticulously scrutinized and fact check monitored.

NOW, is the time to approve this permit application, so US Wind can move forward with offshore wind development. Our citizens deserve to reap the massive rewards from the offshore wind development seeds sown by US Wind so all the State and Federal air quality compliance requirements can be met.

The action to approve this permit is a required benefit for of all our posterity.

Sustainably Yours,

Lawrence Ryan

A resident of Berin, Md for 39 years

GREATER SALISBURY COMMITTEE

January 7, 2025

Ms. Shannon Heafey
Air and Radiation Administration
1800 Washington Blvd
Baltimore, MD 21230

Ms. Heafey,

I write you today on behalf of the 100+ members of the Greater Salisbury Committee, in support of US Wind's request for an OCS Air Permit.

For the last 10 years, GSC has been in support of Maryland's Offshore Wind initiatives. We have believed that Offshore Wind can create a jobs pipeline and offer clean and renewable energy sources for Maryland and the region.

As we understand it, an air quality modeling analysis has already concluded that for all phases of the project, including construction, vessel use, and operations and maintenance, the project will meet all federal and state air quality standards.

At full buildout, the project could result in a net 139-million-ton reduction in CO2 emissions and will produce net clean energy after 1.5 months of operation. Over its lifespan, the project is expected to reduce nitrogen oxides by 67,003 tons, sulfur dioxide by 104,543 tons, and particulate matter by 12,014 tons.

Reduced and displaced fossil fuel-fired energy generation sources in the region would also result in improved air quality in the areas surrounding these sources, many of which are located in or near environmental justice areas.

We are aware, and respectful of, those who oppose the US Wind project, as proposed. That said, all signs point to Offshore Wind, and the US Wind project(s) to be consistent with meeting Maryland's stated goals relating to clean and renewable energy.

Sincerely,

Mike Dunn
President/CEO

200 West Main Street, Salisbury, Maryland 21801 | 410.742.5161 | www.greatersalisbury.org

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Off Shore Wind project - OC, MD

1 message

Mary Huebner <marybrd22@gmail.com> Tue, Jan 7, 2025 at 11:18 AM
To: "shannon.heafey@maryland.gov" <shannon.heafey@maryland.gov>

Good morning Ms. Heafey,

I have long been an advocate of offshore wind. I live in Salisbury, MD and disagree with arguments that these towers will discourage tourists from coming to Ocean City. I cannot imagine that people would stay away for that reason. It just doesn't seem likely to me.

An air modeling analysis has already concluded that for all phases of the project, including construction, vessel use and operations and maintenance, the project will meet all Federal and State air quality standards.

Wind is a resource that we can use to supplement our current power sources. Countries around the world have been using wind power successfully for decades. We need to step up our production. It is an embarrassment that we have failed to do so! This project's permit requires extensive emission monitoring and record keeping, demonstrating compliance with permitted emission limits.

I am a birdwatcher, and have listened to both sides of the argument concerning wind power, and I am convinced that this project will not be the detriment that some have claimed it will be.

People are afraid of something unknown, but I do believe that there is enough evidence to support this project, for the betterment of this environment locally, as well as globally. We really need to step up in our commitment to protect the environment for future generations of birds, creatures of the sea, and most importantly, human beings.

Thank you for your attention to this matter.

Mary O. Huebner
1006 Heron Ct.
Salisbury, Maryland 21804

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Support for the US Wind Project and the Air Quality Permit

1 message

Michael Walsh <mik.walsh@comcast.net> Mon, Jan 13, 2025 at 11:54 AM
To: "shannon.heafey@maryland.gov" <shannon.heafey@maryland.gov>

As I have reviewed the various processes necessary to obtain the many permits required for this project I have been favorably impressed with the efforts of US Wind to comply. I am encouraged by the regulators' demands for extensive impact assessments and also by US Wind's responses.
I wish to offer my support for this project and am in favor of approval of this permit.
We need to support renewable energy advances as climate change impact continues to affect us all in a negative way. I commend the work your agencies do to protect the environment.
Thank You
Michael Walsh

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Offshore Wind - Support

1 message

Noah Bressman <noahbressman@gmail.com> Fri, Jan 10, 2025 at 4:51 PM
To: shannon.heafey@maryland.gov

Dear Ms. Heafey,

I am writing to offer my support for the permits for US Wind to build offshore of Maryland. As a fish biology professor at Salisbury University near where the wind turbines will be built, I have relevant knowledge and interest in this subject. As far as I am concerned, there will be a net benefit of building this wind turbines by offsetting carbon emissions produced by fossil fuels. Additionally, while their construction will likely locally impede fishing in the area during short-term, as seen with offshore oil platforms in the Gulf of Mexico, they will likely increase recreational and commercial fishing opportunities in the long-run by providing a lot of 3D habitat in an area that is currently lacking much 3-dimensional structure. Additional, there is no evidence that these wind turbines will negative influence whales after their construction, but the plans for this project nevertheless entails strategies to reduce impacts on marine mammals. Additionally, while wind turbines do kill 200,000 birds per year, which may sound like a lot, flying into windows kills 600,000,000 birds per year and outdoor cats kill 2,400,000,000 birds per year, making the effects of wind turbines miniscule compared to these other sources, especially when you consider that wind turbines will offset carbon emissions that contribute to climate change that also kills birds. Lastly, I have no problem with seeing spinning structures offshore of Ocean City considering there are already plenty of large spinning structures visible in Ocean City right now - aka ferris wheels.

Overall, it is my professional opinion that the US Wind permits should be approved.

Take Care,
Dr. Noah Bressman, PhD
Assistant Professor of Physiology
Salisbury University
@NoahwithFish
noahbressman.wixsite.com/Noah
He/Him/His

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Bruce Davis (bdavis39@comcast.net) Sent You a Personal Message Fri, Mar 14, 2025 at 7:13 PM
<kwautomail@phone2action.com>
Reply-To: Bruce Davis <bdavis39@comcast.net>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

The Offshore Wind Project will improve Maryland's air quality by obviating fossil fuel electric power plants. These plants emit carbon pollution. Thats on top of the carbon pollution created by mining coal or fracking rock to provide the fossil fuel. The time for investing in clean energy has come. The time to move forward with non-polluting offshore wind energy is now.

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Bruce Davis
701 King Farm Blvd
Rockville, MD 20850
bdavis39@comcast.net
(703) 888-8680

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Cynthia Alden (cmalden2015@gmail.com) Sent You a Personal Message Sat, Mar 15, 2025 at 4:43 PM
<kwautomail@phone2action.com>
Reply-To: Cynthia Alden <cmalden2015@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

This project is a win-win - green energy and green jobs! I would much rather see a wind farm on the ocean horizon than drilling rigs!

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Cynthia Alden
11909 New Country Lane
Columbia, MD 21044
cmalden2015@gmail.com
(410) 802-6001

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Carl Latkin (clatkin2000@gmail.com) Sent You a Personal Message Fri, Mar 14, 2025 at 7:45 PM
<kwautomail@phone2action.com>
Reply-To: Carl Latkin <clatkin2000@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

It is critical that we have more wind energy as part of the mix of renewables in Mayland.

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Carl Latkin
6062 Red Clover Lane
Clarksville, MD 21029
clatkin2000@gmail.com
(410) 929-5461

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Charles Skinner (cskinnec@gmail.com) Sent You a Personal Message Sat, Mar 15, 2025 at 9:02 AM
<kwautomail@phone2action.com>
Reply-To: Charles Skinner <cskinnec@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Charles Skinner
606 Stoneleigh Road
Baltimore, MD 21212
cskinnec@gmail.com
(443) 205-2294

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Fergal Mullally (fergal.mullally@gmail.com) Sent You a Personal Message Mon, Mar 17, 2025 at 10:04 PM
<kwautomail@phone2action.com>
Reply-To: Fergal Mullally <fergal.mullally@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

The closure of Brandon Shores coal fired plant shows how we are on the cusp of an energy revolution. Wind and solar are the future of cheap, low-pollution power, coal is on the way out. Maryland's economic future depends on access to low cost power, and this project is an important component of that future.

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
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I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Fergal Mullally
7113 Oxford Rd
Baltimore, MD 21212
fergal.mullally@gmail.com
(512) 554-3906

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Grace Soltis (nikitasweeta@msn.com) Sent You a Personal Message Sat, Mar 15, 2025 at 1:07 PM
<kwautomail@phone2action.com>
Reply-To: Grace Soltis <nikitasweeta@msn.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

Climate Change is costly. The problem is growing for all the years the fossil industry has hidden its deleterious effects from the Public. NOW we cannot afford to kick it down the road. It's destroying our health, the viability of farms and eroding our beaches. Flooding becomes more pervasive each year. We MUST pull out all the stops, and promote Off Shore Wind, Solar, and other conservation efforts to have the best outcome for the future of our communities. Farms are literally going under. People, wildlife, and livelihoods are at dying. Don't let us down! Contyinue with Off Shore Wind!

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay. The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Grace Soltis
28330 Village Lake Way
Easton, MD 21601
nikitasweeta@msn.com
(443) 385-0538

Maryland Office
2901 E. Baltimore St
Baltimore, MD 21214

March 17, 2025

To: Ms. Shannon Heafey
Maryland Department of the Environment
Air and Radiation Administration
1800 Washington Blvd
Baltimore MD 21230

From: Jim Brown, Policy Director, Audubon Mid-Atlantic

Subject: Maryland Offshore Wind Project, Air Quality Permit Application

Audubon Mid-Atlantic is writing to support the US Wind air quality permit application for the Maryland Offshore Wind Project. Audubon Mid-Atlantic is the regional office of National Audubon Society, representing over 35,000 Marylanders who advocate for the protection of birds, bird habitat, and policies aiming to protect both birds and human communities in the face of increasing environmental challenges, habitat loss, pollution, and climate change.

As noted in National Audubon Society's recently released report, "Birds and Offshore Wind: Developing the Offshore Wind that Birds Need," there is a clear case for responsibly sited offshore wind development. The report addresses potential risks to birds based on the best available science and shares clear strategies and policy recommendations for balancing clean energy demand with conservation to combat climate change while protecting birds and their habitats. Audubon's engagement with US Wind, as well as federal and state regulators on this specific Maryland project leads us to believe that this project will have a positive impact on birds and bird habitat.

Audubon Mid-Atlantic supports this application because offshore wind, and this project will protect birds from the impacts of climate change. Adopting renewable energy is critical to reducing air pollution, lowering temperatures, and preserving the places that birds need to survive. Audubon supports renewable energy—including offshore wind —that is properly sited in ways that avoid, minimize, and mitigate negative impacts on birds and other wildlife. This project does that,

Science tells us birds are in decline due to habitat loss and climate change. 1/3 of bird species that live in or migrate through Maryland have experienced significant population declines in the past 50 years. On the Eastern Shore the endangered salt marsh sparrow is losing critical habitat each year due to climate related sea-level rise. Projects such as the Maryland Offshore Wind Project will slow and reverse this trend by encouraging a transition to non-greenhouse gas energy production in Maryland.

The Science tells us:

- Greenhouse gas induced climate change is the most significant threat to birds and people in Maryland through reduced air quality, air pollution and accelerated climate change threats
- Transitioning to renewable energy sources such as wind will mitigate and slow the impacts of climate change on our vulnerable human and bird communities

- When proper siting considerations are followed, offshore wind turbines minimize threats to birds and other wildlife

When this project is built, air quality will be improved by a reduced emissions and less air pollution not just in the specific project location but throughout the region, as fossil-fuel based energy sources are taken offline. It will also continue to hold Maryland up as a leader in climate action, a strong renewable energy economy, and it will help the state reach the goals established in Climate Solutions Now Act of 2022 and the POWER Act of 2023.

Audubon Mid-Atlantic respectfully urges a favorable review of this air quality permit application.

Thank You,

Jim Brown

Policy Director
Audubon Mid-Atlantic
Jim.brown@audubon.org

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Jonathan Cook (jac4975@yahoo.com) Sent You a Personal Message Mon, Mar 17, 2025 at 9:06 PM
<kwautomail@phone2action.com>
Reply-To: Jonathan Cook <jac4975@yahoo.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

So important at a time when the federal government is going backwards on climate action and climate change is worsening! Our state needs to lead.

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
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I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Jonathan Cook
7808 TAKOMA AVE
TAKOMA PARK, MD 20912
jac4975@yahoo.com
(202) 384-0542

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Janet Gingold (janet.gingold@mdsierra.org) Sent You a Personal Message Sat, Mar 15, 2025 at 10:07 AM
<kwautomail@phone2action.com>
Reply-To: Janet Gingold <janet.gingold@mdsierra.org>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

As someone who has followed energy issues with concern since the 1970s, I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project. With the current federal government undermining the transition away from fossil fuel combustion to clean renewable energy sources at the same time that energy demand from various sources is increasing, it is all the more important that Maryland make good use of offshore wind. With so much evidence of climate change all around us, we have to do all we can to shift to clean, renewable energy to avoid calamitous impacts. This offshore wind project is one step in the right direction. Please do all you can to get it up and running as soon as possible.

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Janet Gingold
13107 Whiteholm Drive
Upper Marlboro, MD 20774
janet.gingold@mdsierra.org
(301) 814-1223

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

James Sarlanis (jns1960@gmail.com) Sent You a Personal Message Fri, Mar 14, 2025 at 10:15 PM
<kwautomail@phone2action.com>
Reply-To: James Sarlanis <jns1960@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
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I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

James Sarlanis
10727 Cottonwood Way
Columbia, MD 21044
jns1960@gmail.com
(443) 676-4871

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Kelly Esslinger (kelly.esslinger8@gmail.com) Sent You a Personal Message Sat, Mar 15, 2025 at 10:13 PM
<kwautomail@phone2action.com>
Reply-To: Kelly Esslinger <kelly.esslinger8@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

I just spent a weekend in Ocean City, Maryland, and it reminded me how much I truly value the amazing natural spaces we have in this state! We have no Planet B; please help reduce air pollution and bring more jobs to Maryland with this Project!

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
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I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Kelly Esslinger
1711 W 7th St Apt 5
Frederick, MD 21702
kelly.esslinger8@gmail.com
(484) 707-3233

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

kuni iwasa (kuniiwasa@duck.com) Sent You a Personal Message Sat, Mar 15, 2025 at 8:46 PM
<kwautomail@phone2action.com>
Reply-To: kuni iwasa <kuniiwasa@duck.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
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I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

kuni iwasa
5802 Wainwright Avenue
Rockville, MD 20851
kuniiwasa@duck.com
(240) 753-0329

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Kathleen Pape (kmc4vd@gmail.com) Sent You a Personal Message Sat, Mar 15, 2025 at 10:19 PM
<kwautomail@phone2action.com>
Reply-To: Kathleen Pape <kmc4vd@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

We need wind as a green source of energy now more that ever as power needs increase due to reliance on data centers; please approve this permit, it's been delayed for too long already.

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
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I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Kathleen Pape
8217 Canning Ter
Greenbelt, MD 20770
kmc4vd@gmail.com
(301) 313-0902

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Lesley Paredes Hernandez (lesleyparedeshernandez@gmail.com) Sent You a Personal Message Fri, Mar 14, 2025 at 5:28 PM
<kwautomail@phone2action.com>
Reply-To: Lesley Paredes Hernandez <lesleyparedeshernandez@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
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I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Lesley Paredes Hernandez
915 Silver Spring Avenue #436
Silver Spring, MD 20910
lesleyparedeshernandez@gmail.com
(347) 720-5336

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Louis Rimbach (louisrimbacg@aol.com) Sent You a Personal Message Sat, Mar 15, 2025 at 5:58 AM
<kwautomail@phone2action.com>
Reply-To: Louis Rimbach <louisrimbacg@aol.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
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I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Louis Rimbach
415 Parkwood Drive
Salisbury , MD 21804
louisrimbacg@aol.com
(410) 370-6561

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Re: US Wind Air Quality Permit to Construct Nos. 047-0248-9-0111 through 9-0114

1 message

Mariah Shriner <mariah.shriner@mdsierra.org> Mon, Mar 17, 2025 at 4:56 PM
To: shannon.heafey@maryland.gov

Dear Ms. Heafey,

On behalf of the undersigned 18 organizations, we are writing to express our strong support for issuing the Air Quality Permit to Construct for US Wind's Maryland Offshore Wind Project.

Please accept the full attached comments in support of US Wind Air Quality Permit to Construct Nos. 047-0248-9-0111 through 9-0114.

Undersigned organizations:

- Audubon Mid-Atlantic
- CASA
- Cedar Lane Unitarian Universalist Environmental Justice Ministry
- Center for Progressive Reform
- Chesapeake Climate Action Network Action Fund
- Chesapeake Physicians for Social Responsibility
- IBEW Local 24
- Indivisible HoCoMD Environmental Action
- MAREC Action
- Maryland League of Conservation Voters
- Maryland Legislative Coalition
- Maryland Legislative Coalition – Climate Justice Wing
- Nuclear Information and Resource Service
- Oceantic Network
- Progressive Maryland
- Sierra Club
- Strum Contracting Company Inc.
- Unitarian Universalist Legislative Ministry of Maryland

Best,
Mariah

--

SIERRA CLUB
MARYLAND CHAPTER

Mariah Shriner
Climate Campaign Representative
Sierra Club, Maryland Chapter
Pronouns: she/her/hers
(240) 424-0348
mariah.shriner@mdsierra.org

Coalition Comments_US Wind Air Quality Permit_Support.pdf
1401K

Ms. Shannon Heafey
Air Quality Permits Program
Maryland Department of the Environment
Air and Radiation Administration
1800 Washington Boulevard
Baltimore, MD 21230

Monday, March 17, 2025

Re: US Wind Air Quality Permit to Construct Nos. 047-0248-9-0111 through 9-0114

Submitted electronically to **shannon.heafey@maryland.gov**

Dear Ms. Heafey,

On behalf of **the undersigned organizations**, we are writing to express our strong support for issuing the Air Quality Permit to Construct for US Wind's Maryland Offshore Wind Project. This permit is a critical and responsible step in Maryland's clean energy transition, ensuring that offshore wind development moves forward while maintaining strict air quality safeguards.

Offshore Wind: A Critical Step for Maryland's Clean Energy Future

Maryland has made bold commitments to reducing greenhouse gas emissions, and offshore wind is an essential part of meeting these goals. The **2023 Promoting Offshore Wind Energy Resources (POWER) Act** enshrined Maryland's target of **8.5 GW of offshore wind by 2031**, aligning with the state's statutory requirement to cut greenhouse gas emissions by **60% by 2031** and achieve **net-zero emissions by 2045**. According to the **Maryland Climate Pollution Reduction Plan**, offshore wind is one of the most effective tools available to meet these objectives while delivering substantial economic and public health benefits.

The US Wind project will contribute directly to these efforts by generating **clean, carbon-free electricity**, displacing fossil fuel generation, and improving air quality across the state. Over its operational lifetime, the project is expected to **prevent 139 million tons of carbon dioxide emissions**, significantly reducing Maryland's contribution to climate change while protecting residents from the harmful impacts of fossil fuel pollution.

Health, Economic, and Ecological Benefits of Offshore Wind

The approval of this air quality permit will not only advance clean energy but also protect Marylanders' health and economic well-being. Maryland has long grappled with the harmful impacts of air pollution, and these burdens are not distributed equally. Offshore wind offers an opportunity to ease these inequities. In addition, offshore wind also delivers critical ecological benefits. Numerous studies underscore the far-reaching advantages of offshore wind:

- The **American Lung Association's "State of the Air"** **reports** consistently rank Maryland as one of the worst states for air pollution, largely due to reliance on fossil fuel-based electricity generation. Offshore wind projects like US Wind's will help **eliminate the smog-forming and particulate pollution that contribute to asthma, respiratory disease, and premature deaths**—especially in environmental justice communities that have long suffered the most from these pollutants.
- A **2022 Gabel Associates** **study** found that if Maryland develops **8.5 GW of offshore wind**, it could **save Marylanders up to $28.5 billion** over 30 years, factoring in **reduced healthcare costs, fewer pollution-related illnesses, and lower electricity prices**.
- The **Maryland Climate Pollution Reduction Plan** estimates that transitioning to clean energy, including offshore wind, will generate up to **27,400 new jobs**, increase total personal income by **$2.5 billion**, and boost GDP by **$5.3 billion** by 2031. These jobs will span construction, manufacturing, operations, and maintenance, benefitting workers across various skill levels. Importantly, offshore wind projects represent a chance to elevate and strengthen Maryland's workforce through robust training programs, apprenticeships, and partnerships with local educational institutions. This ensures that residents—particularly those from underrepresented or heavily impacted communities—have access to stable, well-paying employment in this growing sector.
- The installation of offshore wind farms, including their turbine foundations and subsea structures, has been shown to **enhance marine habitats and increase fish production**. The foundation structures of offshore wind turbines **create** **artificial reef environments** **according to the Oceanography Society**, providing shelter and feeding grounds for fish, crustaceans, and other marine life. Over time, these areas can develop into vibrant ecosystems that support a diverse range of species. Maryland's fishing industry stands to benefit from increased fish populations and healthier marine habitats, strengthening both the ecosystem and the economy.
- By reducing carbon emissions and limiting reliance on polluting fossil fuel infrastructure, offshore wind development helps **mitigate the effects of climate change on marine ecosystems**. Rising ocean temperatures and acidification, driven by greenhouse gas emissions, pose serious threats to marine biodiversity. Offshore wind can slow these destructive trends, preserving delicate ecosystems for future generations.

Ensuring Strong Air Quality Protections

While any construction project results in temporary emissions, US Wind is **committed** **to minimizing its environmental impact** by employing **Best Available Control Technology (BACT)** and meeting the strictest air quality standards. Under this permit, US Wind will:

- **Utilize modern, low-emission construction equipment and vessels** equipped with state-of-the-art pollution controls.
- **Comply with stringent emissions limits and monitoring requirements** to prevent any exceedances of air quality thresholds.

- **Submit comprehensive records of construction activities** to ensure full transparency and regulatory compliance.

By issuing this permit, MDE ensures that offshore wind development proceeds **in a responsible and environmentally sound manner**, while securing long-term clean energy and air quality benefits for Maryland residents.

Urging Swift Approval of the Air Quality Permit

We respectfully urge MDE to **finalize and approve this air quality permit without delay** to ensure that Maryland remains on track to meet its **climate, energy, and public health objectives**. The US Wind project is a critical piece of Maryland's clean energy strategy, and allowing it to move forward with the highest air quality safeguards in place will ensure **a healthier, cleaner, and more prosperous future for all Marylanders**.

Thank you for your time and consideration.

Audubon Mid-Atlantic
CASA
Cedar Lane Unitarian Universalist Environmental Justice Ministry
Center for Progressive Reform
Chesapeake Climate Action Network Action Fund
Chesapeake Physicians for Social Responsibility
IBEW Local 24
Indivisible HoCoMD Environmental Action
MAREC Action
Maryland League of Conservation Voters
Maryland Legislative Coalition
Maryland Legislative Coalition – Climate Justice Wing
Nuclear Information and Resource Service
Oceantic Network
Progressive Maryland
Sierra Club
Strum Contracting Company Inc.
Unitarian Universalist Legislative Ministry of Maryland


Audubon | MID-ATLANTIC


CASA
WE ARE CASA
SOMOS CASA


Center for
Progressive
Reform


ccan
Chesapeake
Climate Action
Network


Unitarian Universalist
Legislative Ministry of
Maryland


CHESAPEAKE
PSR
PHYSICIANS
FOR SOCIAL
RESPONSIBILITY


ibew
LOCAL 24


IndivisibleHoCoMD


MAREC
ACTION


MARYLAND
LEAGUE OF
CONSERVATION
VOTERS


MARYLAND
LEGISLATIVE
COALITION


NIRS
Nuclear Information and Resource Service
For a Nuclear-Free, Carbon-Free World


PROGRESSIVE
PM
MARYLAND


CLIMATE
JUSTICE
WING
MARYLAND
LEGISLATIVE
COALITION


SCC
STRUM
CONTRACTING COMPANY


SIERRA
CLUB


OCEANTIC
NETWORK

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Molly Hauck (mollyphauck@gmail.com) Sent You a Personal Message Fri, Mar 14, 2025 at 11:24 PM
<kwautomail@phone2action.com>
Reply-To: Molly Hauck <mollyphauck@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Molly Hauck
3900 Decatur Ave.
Kensington, MD 20895
mollyphauck@gmail.com
(301) 949-0178

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Marc Imlay (ialm@erols.com) Sent You a Personal Message <kwautomail@phone2action.com> Fri, Mar 14, 2025 at 7:31 PM

Reply-To: Marc Imlay <ialm@erols.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Marc Imlay
2321Woodberry Drive
Bryans Road, MD 20616
ialm@erols.com
(301) 442-5657

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Marie LaPorte (marielaporte@verizon.net) Sent You a Personal Message Sat, Mar 15, 2025 at 11:48 AM
<kwautomail@phone2action.com>
Reply-To: Marie LaPorte <marielaporte@verizon.net>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

We have to increase renewable energy for Maryland to save the planet. Of the estimated eight million species, at least one million are expected to be extinct by 2050. We must move quickly to decarbonize our energy.

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Marie LaPorte
2516 Chestnut Woods CT
Reisterstown , MD 21136
marielaporte@verizon.net
(410) 666-0000

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Maxwell Sanborn (cuff4317@yahoo.com) Sent You a Personal Message Fri, Mar 14, 2025 at 6:43 PM
<kwautomail@phone2action.com>
Reply-To: Maxwell Sanborn <cuff4317@yahoo.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
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I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Maxwell Sanborn
303 Woodland Rd
Rockville, MD 20850
cuff4317@yahoo.com
(240) 324-6297

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Nancy Wakefield (njw@comcast.net) Sent You a Personal Message Sat, Mar 15, 2025 at 8:49 AM
<kwautomail@phone2action.com>
Reply-To: Nancy Wakefield <njw@comcast.net>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

Clean energy is so important to protect our environment.

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Nancy Wakefield
11950 Park Heights Ave.
OWINGS MILLS, MD 21117
njw@comcast.net
(443) 204-5191

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Peter Alexander (palexand54@gmail.com) Sent You a Personal Message Sat, Mar 15, 2025 at 1:21 PM
<kwautomail@phone2action.com>
Reply-To: Peter Alexander <palexand54@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

We need to supporting clean energy projects - expediting approval processes, and moving forward with construction and start-up, including upgrading and installing new transmission capability - as a means to reducing and eventually eliminating the need for fossil fuel based energy generation. My grandchildren will inherit the planet from us and ours is the last generation with the power to stop climate change.

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Peter Alexander
15615 Camden Meadows Court
Woodbine, MD 21797
palexand54@gmail.com
(410) 489-7928

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Pamela Dehmer (auntpurple@gmail.com) Sent You a Personal Message Sat, Mar 15, 2025 at 8:22 AM
<kwautomail@phone2action.com>
Reply-To: Pamela Dehmer <auntpurple@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

Please move forward with current Offshore Wind Projects. Maryland needs more renewable energy to reach climate change goals, especially at a time when the federal government is exacerbating the effect of climate change. It is the right thing to do for our children's future.

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Pamela Dehmer
928 Bergen Ct
Bel Air, MD 21014
auntpurple@gmail.com
(410) 838-0308

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

Richard Reis (rich.reis1@gmail.com) Sent You a Personal Message Fri, Mar 14, 2025 at 6:55 PM
<kwautomail@phone2action.com>
Reply-To: Richard Reis <rich.reis1@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

With the world facing accelerating warming and sea level rise, we desperately need the type of clean renewable energy this offshore wind project will provide.
The air quality aspects of the OSW project are extremely favorable toward the goals with none of the health-harming air pollution that comes from gas or coal power plants. This is especially important to me as I have a brother and a grandson with asthma.

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

Richard Reis
103 W 39th St, Apt A2
Baltimore, MD 21210
rich.reis1@gmail.com
(301) 325-8001

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

In support of air permit for US Wind project

1 message

Steve Cottrell <stevecottrell5@gmail.com> Mon, Mar 17, 2025 at 5:04 PM
To: shannon.heafey@maryland.gov

Hello Ms. Heafey,

I am writing in support of the application for the air permit for the US Wind offshore wind project. The net result of the project will be a significant improvement of the air quality of the region, due to a substantial reduction in the amount of nitrogen oxides, sulfur dioxide, and particulate matter emitted into the atmosphere compared to electric generation from fossil fuel combustion. generation. Extensive emission monitoring and record keeping will demonstrate compliance with permitted emission limits.

Thank you.

Steve Cottrell
President, Delaware Audubon

BLUEGREEN ALLIANCE

CREATING GOOD JOBS, A CLEAN ENVIRONMENT, AND A FAIR AND THRIVING ECONOMY

March 17, 2025

Ms. Shannon Heafey
Air Quality Permits Program
Maryland Department of the Environment
Air and Radiation Administration
1800 Washington Boulevard
Baltimore, MD 21230
Submitted electronically to shannon.heafey@maryland.gov

Re: US Wind Air Quality Permit to Construct Nos. 047-0248-9-0111 through 9-0114

On behalf of the BlueGreen Alliance (BGA), our partners, and the members and supporters they represent, we are writing to express our strong support for issuing the Air Quality Permits to Construct for US Wind's Maryland Offshore Wind Project. These permits are a critical and responsible step in Maryland's clean energy transition, ensuring that offshore wind development moves forward while maintaining air quality safeguards.

The mission of BGA is to unify labor unions and environmental organizations into a powerful force to fight climate change, protect the health of people and the environment, stand against economic and racial inequality, and create and maintain good-paying, union jobs in communities across the country. Offshore wind is a vital clean energy solution that presents a once-in-a-generation opportunity to advance this mission if projects are developed in an equitable and environmentally responsible manner—with high-road labor standards and attention to environmental justice. Offshore wind projects have the potential to create family-sustaining, union jobs; deliver benefits to communities hardest hit by climate change and economic inequality; and protect wildlife and critical habitats at every stage of development.

We recognize that the future of working people and the health of the environment are inextricably linked, rejecting the false choice that good-paying jobs and economic opportunity are at odds with protecting our environment. Offshore wind energy proves this statement in practice.

Maryland has made bold commitments to reducing greenhouse gas emissions, and offshore wind is an essential part of meeting these goals. The 2023 Promoting Offshore Wind Energy Resources (POWER) Act enshrined Maryland's target of 8.5 GW of offshore wind by 2031, aligning with the state's statutory requirement to cut greenhouse gas emissions by 60% by 2031 and achieve net-zero emissions by 2045. The US Wind project will generate

clean electricity, contributing to Maryland's energy goals and benefiting air quality across the state.

The Maryland Department of Environment has thoroughly reviewed this application and issued a favorable recommendation. They concluded the project is expected to comply with all applicable State and federal air quality requirements. We encourage the department to issue the air quality permits which would allow the proposed facility to move forward which will help create good union jobs, boost the local economy, and help Maryland meet its offshore wind goals.

When done right with protections for the environment and workers, offshore wind power will create high-quality, family-sustaining jobs in manufacturing, construction, and operations while also avoiding, minimizing, and mitigating environmental impacts. We appreciate your effort to solicit stakeholder input to inform the air quality permitting process.

Signed,

Jason Walsh

Executive Director

BlueGreen Alliance

SIERRA CLUB
MARYLAND CHAPTER

Sierra Club Maryland Chapter
P.O. Box 278
Riverdale, MD 20738
(301) 277-7111

March 17, 2025

Ms. Shannon Heafey
Air Quality Permits Program
Maryland Department of the Environment
Air and Radiation Administration
1800 Washington Boulevard
Baltimore, MD 21230

Re: Support for the Maryland Department of the Environment's Tentative Determination to Issue US Wind Air Quality Permit (PERMIT NOs. 047-0248-9-0111 through 9-0114)

Dear Ms. Heafey,

Sierra Club urges the Maryland Department of the Environment ("MDE") to issue an air quality permit enabling US Wind, Inc. to construct up to 121 wind turbine generators, four offshore substations, and one meteorological tower. Approval of this permit is an essential step in Maryland's ongoing effort to procure clean, renewable power to meet its energy needs. Sierra Club appreciates the Moore Administration's recognition that deploying more offshore wind is critical for meeting Maryland's climate goals, which include reducing emissions 60% below 2006 levels by 2031—which is only six years away—and reaching net-zero emissions by 2045.[1] Governor Moore has emphasized that it is critical to develop Maryland's offshore wind resources, and the 2023 POWER Act sets a goal of acquiring 8.5 gigawatts of power from offshore wind by 2031.[2] This ambitious goal will be challenging to meet in any respect, but it will be impossible to meet without Maryland providing the necessary permits for US Wind's MarWin and Momentum offshore wind projects ("the Project").

Recognizing the lack of significant environmental harm posed by the Project, the federal government has completed its environmental analyses and permitting processes, issuing a Record of Decision on September 5, 2024.[3] Most recently, on January 24, 2025, the Maryland Public Service Commission approved US Wind's request for offshore wind renewable energy credits ("ORECs") for the Project, determining the Project "is in the public interest" and "will produce significant positive net economic, environmental, and health benefits to Maryland."[4] In the

[1] S.B. 528 (2022).
[2] S.B. 781 (2023).
[3] U.S. Department of the Interior, "Biden-Harris Administration Marks Major Milestones for Offshore Wind, Approves Tenth Project" (Sept. 5, 2024), https://www.doi.gov/pressreleases/biden-harris-administration-marks-major-milestones-offshore-wind-approves-tenth.
[4] Md. Pub. Serv. Comm'n, Case No. 9666 - *Order Granting Offshore Wind Renewable Energy Credits to US Wind's Revised Round 2 Project* at 1 (Jan. 24, 2025).

context of the present permit request, MDE has already conducted a preliminary analysis and issued a tentative determination that the Project complies with the pertinent air quality standard.

Maryland Sierra Club has been supportive of US Wind's requests in those prior regulatory proceedings for the same reason it supports the present permit application: The Project will reduce Maryland's greenhouse gas emissions and improve its ability to comply with the mandates of the Climate Solution Now Act and POWER Act, the Project will have far less pollution and environmental impacts than fossil fuel power plants, and it will generate economic growth while improving public health in Maryland.

Offshore wind does not generate any significant sources of air pollution. In fact, it will result in a net decrease of statewide air pollution by displacing much dirtier fossil generation. In contrast with fossil power plants, which emit greenhouse gases, ozone-forming nitrogen oxides, and other air pollutants during their construction process and every day they are operating, offshore wind is a clean resource that does not burn solid fuel and does not emit air pollution during its operation. There are only relatively minor emissions associated with constructing offshore wind turbines, but any large construction process in Maryland would be expected to produce such temporary emissions, as vehicles are needed to transport construction components and assemble them.

In light of the Project's substantial net benefit for the environment—and its lack of any significant air quality impacts—Sierra Club urges MDE to approve US Wind's air quality permit and to expeditiously approve any of US Wind's future requests for permits related to its construction process. In addition to reducing Maryland's overall air pollution and climate emissions, offshore wind is expected to further benefit the state by bolstering the state's domestic manufacturing industry and creating around 10,000 new jobs.[5]

Thank you for taking the time to consider these comments.

Sincerely,

Josh Tulkin, Director
Maryland Chapter of the Sierra Club
josh.tulkin@mdsierra.org

Dustyn Thompson, Director
Delaware Chapter of the Sierra Club
Dustyn.Thompson@sierraclub.org

[5] Offshore Wind Maryland, *Jobs for Marylanders*, https://offshorewindmaryland.org/working-in-offshore wind/jobs-for-marylanders/.

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Approve Air Quality Permit for the US Wind Offshore Wind Project

1 message

William E Primosch (bill.primosch@gmail.com) Sent You a Personal Message Fri, Mar 14, 2025 at 6:59 PM
<kwautomail@phone2action.com>
Reply-To: William E Primosch <bill.primosch@gmail.com>
To: shannon.heafey@maryland.gov

Dear Maryland Department of the Environment,

Wind power generation is vital for moving away from fossil fuels and limit global warming. Let's keep Maryland on track transition to renewable energy. My six grandchildren are depending on legislators to protect their future.

I urge you to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project without delay.
The Project would provide economic, environmental, and energy benefits to our state that are vital for meeting our state?s climate and clean energy goals and would improve public health by reducing air pollution.
US Wind's Offshore Wind Project is expected to generate up to 2 GW of energy. The Project is also expected to bring 10,000 new jobs to the state of Maryland, which could help support families across our state.
Additionally, there is a lack of significant environmental harm posed by the Project, which the federal government has concluded after completing its environmental analyses and permitting processes in September 2024. In contrast to fossil fuel energy, offshore wind does not generate air pollution as it operates, and the Project would help reduce greenhouse gas emissions in the state by helping Maryland transition away from fossil fuel energy generation.
I urge the Maryland Department of the Environment to finalize and approve the air quality permit for US Wind's Maryland Offshore Wind Project to ensure that Maryland remains on track for a clean, abundant energy future.

Sincerely,

William E Primosch
8720 Hartsdale Ave.
Bethesda, MD 20817
bill.primosch@gmail.com
(202) 494-4817

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Maryland Offshore Wind Project: Information Regarding an Air Quality Permit Application Submitted by US Wind, Inc.

1 message

Roselie Bright <roseliemail@gmail.com> Sun, Jan 12, 2025 at 2:44 PM
To: shannon.heafey@maryland.gov

Hi Ms. Shannon Heafey,

I'm writing in support of the Maryland Offshore Wind Project [1].

I stand by the public comments I've already submitted and attached to this email:

- In the first one [2], I discuss the need to consider health impacts of energy projects, and review the science that shows that combustion-generated energy is much worse for public health than noncombustion-generated energy, such as wind.

- In the second and third comments [3-4], I added that even though each energy project is small relative to its impact on greenhouse gases and climate change, they must each be taken seriously because the impacts add up.

In this comment, I call your attention to two new studies of the effects of severe weather on people:

- A recent study [5] of the effects of hundreds of tropical cyclones (including hurricanes and tropical storms) on human lives in the contiguous United States. Even the authors were surprised to calculate that for each storm, 7,000 to 11,000 deaths in the following 15 years were attributable to the storm's physical and economic effects on their lives.

- Another recent scientific report was a review of dozens of mental health studies. They found that "[h]urricanes and flooding were associated with increased depression and [post-traumatic stress]" [6].

These studies increase the urgency of acting to slow down the increase in storms and other weather disasters by replacing combustion-generated energy with non-combustion-generated energy, such as wind.

Thank you for this opportunity to comment.

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3 attachments

Bright-- Comment Supporting Maryland Offshore Windmills.pdf
194K

2024 10 17 Bright-- MD Offshore wind testimony-- Case 9666.pdf
54K

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November 19, 2023

I'm Dr. Roselie Bright, a Maryland resident. I have a doctor of science degree in epidemiology, which is the science of diseases in populations, with an emphasis in environmental health. I'm retired from a federal career as an epidemiologist.

I support the development of wind-generated energy. Off-shore is a great location.

My focus is on the public health impacts of various sources of energy.

A. Sections that need to be in Environmental Impact Statements

Lately, I've been reading draft and final environmental impact statements (EISs) for a variety of fossil fuel related projects. They have included a range of elements of public health impacts. However, none of them have included all public health impacts of fossil fuel projects related to:

1. local extraction area during construction.
2. local extraction area during operations.
3. local extraction area after operations are finished and the facility is properly sealed.
4. local extraction area after operations are finished and the facility is improperly sealed.
5. the areas adjacent to fossil fuel transport (ports, transfer facilities, highways for tanker trucks, tracks for train tankers, waterways for tanker boats, areas along pipelines, etc.) in case of leaks, spills, or explosions.
6. the areas local to fossil fuel processing facilities.
7. the indoor and outdoor areas where fossil fuels are purposely combusted.
8. global greenhouse gas emissions and their adverse public health impacts.
9. airborne pollutants and gases associated with the first eight items in this list.
10. noise associated with the first seven items in this list.

All ten areas need to be included for the public health impacts to be comprehensive. Please note that there are plenty of published scientific articles that address each of the ten areas. A scientist with a doctoral degree in epidemiology, with expertise in environmental health, is the most qualified to find and analyze the extensive literature. If you don't have such a person on your staff, you could try to obtain one or several on detail from another agency, or contract with academics.

In general, your EISs should state the personnel who contributed to the different sections, and their qualifications.

B. Bad Health Impacts of the Alternative

Scientists have learned over the past several decades that fossil fuels have very bad health impacts for all ages, from prenatal to elderly. The effects are mainly on our lungs, hearts, and brains:

1. Combustion of natural gas causes indoor air pollution. [1] [2] [3]
2. Air pollution particulates are harmful. [4]

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and events, [94] [95] lung disease, [96] [97] raised stress hormones, [98] brain damage, [99] [100] cancer, [101] and death [102] [103].

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6. Greenhouse gas emissions from fossil fuels use [104] [105] are causing worse and more frequent storms, [106] [107] [108] [109] [110] wildfires, [111] droughts, [112] and ill health, [113] [114] which in

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turn are damaging the environment, [115] [116] [117] posing significant hazards to public health, [118] [119] [120] and exacting high economic costs [121] [122] [123].

C. Include public health in the risk benefit analyses

The public health impacts are crucial to risk benefit analyses [124] since the benefits of fossil fuels can now be achieved with energy sources that are much less harmful to public health [125].

As a society, we no longer need to put up with these bad health effects to have industrial, transportation, and home energy. Renewable sources, including wind, have much less public

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health impacts.[126] During the transition to renewable sources, EISs should include analyses that compare the public health adverse impacts of fossil fuel vs. renewable energy sources. Essentially, fossil fuel projects to provide the same level of energy production would be a second type of "No Action" alternative for the EIS, as mentioned in the public comments on October 30, 2023, by Maryland Delegate Charkoudian. Epidemiologists, preferably with doctoral epidemiology degrees, and with environmental health expertise, are good choices for generating the reviews and analyses of these relative public health impacts.

D. Necessity for Maryland

The Maryland legislature set goals for the state to reduce greenhouse gases. [127] Conversion from fossil fuel use to renewables, including wind, is a necessary step to meeting those goals.

Thank you for this opportunity to comment.

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Comment on Case 9666 - SKIPJACK OFFSHORE ENERGY, LLC AND US WIND, INC.'s OFFSHORE WIND APPLICATIONS UNDER THE CLEAN ENERGY JOBS ACT OF 2019. Maryland Public Service Commission. https://webpscxb.psc.state.md.us/DMS/case/9666. Accessed 2024 Oct 17.

Filed at https://webpscxb.psc.state.md.us/DMS/E-file-pc on Oct 17, 2024.

I'm Roselie Bright, ScD, a Maryland resident. I have a Harvard doctor of science degree in epidemiology, which is the science of diseases in populations, with an emphasis in environmental health. I'm retired from a federal career as an epidemiologist. My comment focuses on the health aspects of this case.

First, I reference and stand by the oral comment I made on October 30, 2023, to BOEM about this project, and my more extensive written comment of November 19, 2023 [1]. In them, I emphasized that decision-makers ought to consider the full range of public health pros and cons of non-combustion versus combustion energy. Combustion energy fuels include oil, gas, methane, bio-methane, ethanol, and trash.

In this comment, I want to add that every project, as small as it may seem among all energy projects, counts. I have seen many federal justifications for combustion energy projects that state that the projected impact of their individual project is a very small fraction of the total impacts of combustion on pollution and climate change. The problem with the federal arguments is that even though every single project is relatively small, they add up. The only way to tackle the entire problem of combustion-fuels usage is to address each project. The only way to reduce the impacts of combustion on pollution and climate change is to eliminate each project. As a society, we now have the capability to replace most combustion and we need to do so expeditiously. Meantime, we need to develop the technology to remove the combustion projects that we currently can't replace.

Clearly, to eliminate combustion projects, they need to be replaced with non-combustion energy projects, including wind. Wind projects should take advantage of both onshore and offshore locations, such as the one being considered today.

A major benefit of replacing combustion projects with other sources of energy is improved health, as I had detailed for BOEM. The direct benefits include less risk of explosions and thermal burns, less health problems from air, water, and ground pollution, and less health problems from the noise generated by combustion. The indirect benefits include slowed or stopped climate change, which is causing health problems, injuries, starvation, and deaths from storms, drought, wildfire, decreased crop production, declines in ocean food resources, increased infections, and less habitable land.

The risks and projected environmental and human health impacts from offshore wind energy generation are small, compared to the impacts from equivalent amounts of energy generated with combustion.

The risks and benefits equation strongly favors supporting the current proposal to expand the Maryland offshore wind turbines project.

Thank you for this opportunity to comment.

Reference:

Bright, Roselie. Comment Supporting Maryland Offshore Windmills. Posted by Bureau of Ocean Energy Management on Dec 13, 2023. Document BOEM-2023-0050-0001. Tracking number lp6-c9lg-wqdg. Received Nov 19, 2023. https://www.regulations.gov/comment/BOEM-2023-0050-0415. Attached.

Comment on Request for Information: Commercial Leasing for Wind Power Development on the Central Atlantic Outer ContinentalShelf—Central Atlantic 2; Request for Nominations. Bureau of Ocean Energy Management. 2024 Aug 22. Docket No. BOEM-2024-0040. https://www.regulations.gov/document/BOEM-2024-0040-0001.

Filed at https://www.regulations.gov/commenton/BOEM-2024-0040-0001 on Oct 17, 2024.

I'm Roselie Bright, ScD, a Maryland resident. I have a Harvard doctor of science degree in epidemiology, which is the science of diseases in populations, with an emphasis in environmental health. I'm retired from a federal career as an epidemiologist.

My comment supports leasing offshore areas for wind development for reasons of health, which I think should be a category of information that you request.

First, I reference and stand by the oral comment I made on October 30, 2023, to BOEM about this initiative, and my more extensive written comment of November 19, 2023 [1]. In them, I emphasized that decision-makers ought to consider the full range of public health pros and cons of non-combustion versus combustion energy. Combustion energy fuels include oil, gas, methane, bio-methane, ethanol, and trash.

In this comment, I want to add that every project, as small as it may seem among all energy projects, counts. I have seen many federal justifications for combustion energy projects that state that the projected impact of their individual project is a very small fraction of the total impacts of combustion on pollution and climate change. The problem with the federal arguments is that even though every single project is relatively small, they add up. The only way to tackle the entire problem of combustion-fuels usage is to address each project. The only way to reduce the impacts of combustion on pollution and climate change is to eliminate each project. As a society, we now have the capability to replace most combustion and we need to do so expeditiously. Meantime, we need to develop the technology to remove the combustion projects that we currently can't replace.

Clearly, to eliminate combustion projects, they need to be replaced with non-combustion energy projects, including wind. Wind projects should take advantage of both onshore and offshore locations, such as the one being considered today.

A major benefit of replacing combustion projects with other sources of energy is improved health, as I had detailed for BOEM last year. The direct benefits include less risk of explosions and thermal burns, less health problems from air, water, and ground pollution, and less health problems from the noise generated by combustion. The indirect benefits include slowed or stopped climate change, which is causing health problems, injuries, starvation, and deaths from storms, drought, wildfire, decreased crop production, declines in ocean food resources, increased infections, and less habitable land.

The risks and projected environmental and human health impacts from offshore wind energy generation are small, compared to the impacts from equivalent amounts of energy generated with combustion.

The risks and benefits equation strongly favors supporting initiation and expansions of the Mid-Atlantic offshore wind turbines projects.

Thank you for this opportunity to comment.

Reference:

Bright, Roselie. Comment Supporting Maryland Offshore Windmills. Posted by Bureau of Ocean Energy Management on Dec 13, 2023. Document BOEM-2023-0050-0001. Tracking number lp6-c9lg-wqdg. Received Nov 19, 2023. https://www.regulations.gov/comment/BOEM-2023-0050-0415. Attached.

Air and Radiation Administration

1800 Washington Blvd

Baltimore, MD 21230

RE: Permit for Outer Continental Shelf Air Permit

Maryland Offshore Wind Project – US Wind

I am writing on the behalf of the Southern Maryland Audubon Society (SMAS) asking that the needed Outer Continental Shelf Air Permit be granted for the Md Offshore Wind Project

SMAS has followed the project from its inception; expressed our approval at several hearings; and provided comments stating our support. We continue that support.

This is a much-needed project to provide the electricity to a system that is rapidly falling behind the needs of our society.

It is apparent that the requirements and standards in this permit regarding the use of vessels and equipment at and in the vicinity of the site will be met.

So, I again ask that this permit be approved so the US wind Project can move forward

Thanks for your consideration and anticipated approvals.

Regards

Bob Lukinic, Conservation Chair

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Comments: US Wind Air Quality Permit to Construct NOs. 047-0248-9-0111 through 9-0114

1 message

Rebecca Rehr <rrehr@mdlcv.org> Thu, Feb 6, 2025 at 11:10 AM
To: Shannon Heafey -MDE- <shannon.heafey@maryland.gov>
Cc: Kim Coble <kcoble@mdlcv.org>, Adam Scheckman <ascheckman@mdlcv.org>

Ms. Heafey,

Attached, please find the Maryland League of Conservation Voters' comments on the US Wind Air Quality Permit to Construct NOs. 047-0248-9-0111 through 9-0114.

Thank you.
Cheers,
Rebecca

Rebecca Rehr
Director of Climate Policy and Justice
Maryland League of Conservation Voters
Maryland LCV Education Fund
30 West Street, Suite C
Annapolis Maryland 21401
office 410.280.9855 x.109
mobile 443.668.7467

Maryland LCV Comments to MDE_Air Permit_02.06.25.pdf
134K

MARYLAND LEAGUE OF CONSERVATION VOTERS

February 6, 2025

Ms. Shannon Heafey
Air Quality Permits Program
Maryland Department of the Environment
Air and Radiation Administration
1800 Washington Boulevard
Baltimore, MD 21230

Re: US Wind Air Quality Permit to Construct NOs. 047-0248-9-0111 through 9-0114
Submitted electronically to shannon.heafey@maryland.gov

The Maryland League of Conservation Voters (Maryland LCV) is a non-partisan non-profit organization whose vision is a healthy environment for everyone in Maryland. Thank you for the opportunity to provide comments in support of this air quality permit to construct.

Under this permit, which is part of the larger Maryland Offshore Wind Project (Project), US Wind will be required to utilize equipment and vessels that are equipped with best available control technology, which is the maximum degree of control that can be achieved. The company will also be required to keep thorough records of project activities, including ships being used for construction activities. This air permit will more importantly have strict air quality standards and will prohibit any emissions above the permit thresholds, which is key to safeguarding public health. While there are often increased emissions during the construction of any project, ultimately, this air permit ensures that US Wind will maintain healthy air quality in the Project Area and that they protect public health throughout the Project's construction and operation.

The Project is expected to produce net clean energy within two months of its operation, and in total, the Project is anticipated to have a net reduction of 139 million tons of carbon dioxide emissions. Constructing more in-state clean energy generation reduces our reliance on fossil fuel sources, which results in improved air quality and public health in the areas surrounding these sources, many of which are located in or near environmental justice communities. It is crucial, therefore, that the Project's construction and operation adhere to healthy air quality standards, ensuring that all stages of the Project are beneficial while minimizing any harmful impacts during the lifecycle of the Project, which this air quality permit guarantees.

In the September 2022 Greenhouse Gas Reduction Act Progress Report, the Maryland Department of the Environment (MDE) detailed the need to deploy more renewable energy and identified offshore wind (OSW) as one of the most reliable clean energy resources available to the state. The 2023 passage of the POWER Act to codify the state's specific OSW goal of 8.5 GW by 2031 is aligned with the state's statutory greenhouse gas (GHG) emissions reduction target of 60% by 2031, and with the clean energy plans mentioned in MDE's Climate Pollution Reduction Plan (CPRP).

A 2022 report from Gabel Associates found that if Maryland builds 8.5 GW of offshore wind, it could save Marylanders $4.7 billion over 30 years in reduced energy costs, and could save Marylanders as much as $28.5 billion when accounting for environmental and health benefits. That's more than $20 billion in potential cost savings from environmental and health benefits of reduced air pollution, including lost workdays, hospital visits, asthma, and respiratory disease. This aligns with analysis included in the CPRP: "Between now and 2031, up to 27,400 additional jobs will be generated under the new policies of this plan; total personal income will increase by $2.5 billion; and Gross Domestic Product (GDP) will increase by $5.3 billion." The policies outlined in the CPRP "deliver[s] additional health benefits of $142 million to $321 million in 2031 compared to current policies." The air quality permit in front of MDE is a critical part of supporting the state's clean energy and economic goals.

Maryland LCV supports MDE moving forward with its initial determination that the Project is expected to comply with all applicable State and federal air quality requirements and an air quality permit-to-construct. We need to maximize the opportunities in Maryland's existing offshore wind lease areas, while continuing to work with developers, labor, impacted communities, and state and federal regulators to bring clean energy from offshore wind online as expeditiously as possible. Thank you for your time and consideration.

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Offshore wind air permit hearing in Ocean City

1 message

Susan Buyer <susanbuyer@gmail.com> Mon, Jan 6, 2025 at 4:23 PM
To: shannon.heafey@maryland.gov

Dear Ms. Heafey,

I am writing to express my support for the offshore wind air permit for U.S. Wind. I believe that the U.S. Wind wind energy project will not only provide us with green energy in coming years but will safeguard our air quality.

According to a recent air quality modeling analysis, the project will meet all federal and state air quality standards. At full buildout, the project could result in a net 139-million-ton reduction in CO2 emissions and will produce net clean energy after 1.5 months of operation. Over its lifespan, the project is expected to reduce nitrogen oxides by 67,003 tons, sulfur dioxide by 104,543 tons, and particulate matter by 12,014 tons. Reduced and displaced fossil fuel-fired energy sources will also result in improved air quality in surrounding areas, many of which are located in or near environmental justice areas. This will be of tremendous benefit to our entire region, and of particular benefit to those living in neighborhoods that have historically been saddled with the most serious environmental problems.

I hope that the Maryland Department of the Environment will approve this permit.

Susan Buyer
11621 Twin Oaks Drive
Berlin, MD 21811

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

US Wind Air Permit Application

1 message

steve.cottrell <steve.cottrell@delawareaudubon.org> Sat, Jan 11, 2025 at 11:50 AM
To: "shannon.heafey@maryland.gov" <shannon.heafey@maryland.gov>

To:
Ms. Shannon Heafey
Air and Radiation Administration
Maryland Department of the Environment

Dear Ms. Heafey,

As the president of Delaware Audubon Society, a statewide chapter of National Audubon Society, I am writing in support of US Wind's Offshore Continental Shelf Air Permit Application. The emissions associated with the US Wind project are projected to be in compliance with all applicable Maryland and federal air pollution control regulations. In addition, the US Wind offshore wind project will provide substantial air quality benefits to Maryland and the region, since the energy generated by the project will not discharge the environmentally harmful emissions generated as a result of fossil fuel combustion. This will result in significant improvements to air quality in Maryland, as well as in the neighboring state of Delaware.

The National Audubon Society is in support of offshore wind projects, concluding they are critical to combatting climate change. The US Wind project is in harmony with National Audubon's strategies for responsible siting and operating of offshore wind projects, both to protect birds and to provide a cleaner environment for everyone.

Thank you.

Stephen Cottrell
Delaware Audubon Society

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Fwd: Support letter for US Wind Ocean City Project

1 message

Scott Hymes <scotthymes@gmail.com> Fri, Jan 10, 2025 at 11:57 AM
To: shannon.heafey@maryland.gov
Cc: Scott Hymes <scotthymes@gmail.com>

Dear Ms. Heafy,

Our family fully supports the US Wind Ocean City Project for Air Quality improve and energy independence.

An air quality modeling analysis has already concluded that for all phases of the project, including construction, vessel use, and operations and maintenance, the project will meet all federal and state air quality standards.

At full buildout, the project could result in a net 139-million-ton reduction in CO2 emissions and will produce net clean energy after 1.5 months of operation. Over its lifespan, the project is expected to reduce nitrogen oxides by 67,003 tons, sulfur dioxide by 104,543 tons, and particulate matter by 12,014 tons.

Reduced and displaced fossil fuel-fired energy generation sources in the region would also result in improved air quality in the areas surrounding these sources, many of which are located in or near environmental justice areas.

Thank you!

Scott Hymes

410-353-4828
scotthymes@gmail.com
245 Wiltshire Ln.
Severna Park, MD 21146

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Public Comment: U.S. Wind Offshore wind project air permit

1 message

Tim Peck <golfertim@yahoo.com> Fri, Jan 10, 2025 at 1:03 PM
To: "shannon.heafey@maryland.gov" <shannon.heafey@maryland.gov>

Dear Ms. Heafey
MDE Air and Radiation Administration

I attended the public hearing on 9 January 2025 on the referenced subject. I am submitting my comments concerning the air permit application. I am a full time resident of Ocean Pines in Worcester County, MD.

Overall I am supportive of the wind turbine project and the tentative air permit. My overwhelming reason to support this alternative energy project, similar to other supportive comments during the meeting, is the continuing intense climate change primarily due to fossil fuel emissions worldwide. The drastic effects of climate change are only accelerating and intensifying, and energy alternatives must be implemented now.

The various reasons given against this project included the "industrialization" of the ocean view of Ocean City, MD. This view and surroundings are already fully industrialized and commercialized through many activities, which include events that the City itself carries out. These activities occur close and parallel to the shoreline during the summer, which include several large deck boats with very large electronic advertising signs that travel up and down just past the wave breakers, several low-level small plane flights that carry large advertising banners, large commercial speedboats that carry many tourists several times a day, and a few large fishing trawlers seen off the shore. There are limited moments when the view from the beach is not obstructed or noisy. Also, Ocean City is now referred to the "Las Vegas" of the Maryland shore due to the many huge entertainment events that the City organizes. The City schedules many multi-day music, ocean fishing tournament, air plane show, alcohol brand, or unique vehicle events during the summer, fall and spring months every year that can draw from 50,000 to over 150,000 attendees. The Ocean City Bikefest that the City holds every fall occurs over three days and includes thousands of very loud motorcycles that can be heard constantly day and night miles away from major roads in the area. This event is an example of the large impacts that frequently occur at Ocean City that contrast with any idea of a sleepy, beautiful shore town. All of these activities and related vehicle traffic emit extensive air pollutants for many days of the year as well as high noise impacts. That sleepy, beautiful shore town is a thing of the past. If the objecting reasons given were sincere, the local government officials should take a serious look at these events.

I observe that the actual impacts of a wind turbine project are minor compared to the extreme changes already happening to the City. It is obvious that many of the reasons given by state and county elected officials against the project are highly exaggerated and most likely are being pushed by large corporate interests from outside the state. The fact that U.S Congressional Representative Andy Harris is against this project for supposed environmental reasons that strongly conflict with his long-term anti-environmental voting record is proof that there are other high money interests at play, which are not made known to the public. A similar statement might be said for the state-level representatives.

Therefore, as a state resident, I am supportive of the project. I agree with the federal and state initiatives to implement alternative energy solutions including wind turbines.

Tim Peck, P.G.
Ocean Pines, MD
410-629-9889

Maryland

Shannon Heafey -MDE- <shannon.heafey@maryland.gov>

Support - Offshore Wind Air Permit Hearing (Jan 9th)

1 message

Josh Hastings <maryland.proud@gmail.com> Tue, Jan 7, 2025 at 4:23 PM
To: shannon.heafey@maryland.gov

Ms. Shannon Heafey-

Please accept my attached letter regarding support for US Wind's air permit, with the hearing that will take place on Thursday (January 9th) in Ocean City.

As a member of the Wicomico County Council, I'm not able to be at the rescheduled meeting given that our Council meeting was also postponed for the same time/day.

If I can provide more information, in any way, please don't hesitate to contact me at 410-251-5268 or JHastings@WicomicoCounty.org -- or my personal email (Maryland.Proud@gmail.com). Thank you again!
-Josh Hastings

JHastings - Support - MD Offshore Wind Air Quality - Jan 7 2025.pdf
662K

Office of Councilman Josh Hastings – Wicomico County Council – District 4

January 7, 2025

Attn: Ms. Shannon Heafey
Air and Radiation Administration
1800 Washington Boulevard
Baltimore, Maryland 21230

RE: Maryland Air Quality Permit Application Submitted by US Wind, Inc.

To Whom It May Concern:

Due to a weather-related rescheduled County Council meeting, I'm personally not able to attend the Maryland Department of the Environment hearing, on January 9th, regarding the air quality permit submitted by US Wind, Inc. Speaking only on behalf of myself -- as an individual Wicomico Council member -- and with the broad support of dozens of my 22,000 constituents, I want to convey our desire to witness the immense net benefits for air quality that this project will bring.

For the past six years, I've spoken with countless constituents that want to see the full benefits of offshore wind energy. Many have spoken-up to seek job opportunities related to offshore wind, but many more have expressed a greater desire to see the environmental and biodiversity benefits that can result from greater clean energy adoption – specifically wind energy.

As it has been noted by supporters of this specific project:

- *An air quality modeling analysis has already concluded that for all phases of the project, including construction, vessel use, and operations and maintenance, the project will meet all federal and state air quality standards; and*
- *At full buildout, the project could result in a net 139-million-ton reduction in CO2 emissions and will produce net clean energy after 1.5 months of operation. Over its lifespan, the project is expected to reduce nitrogen oxides by 67,003 tons, sulfur dioxide by 104,543 tons, and particulate matter by 12,014 tons.*

This project will greatly help reduce the negative externalities of burning fossil fuels. Most notably among these externalities are the effects of climate change and the impact that it is having on species decline, extinction and overall pollution. Having grown up and worked within Maryland's agricultural community, there is a great desire from farmers to decrease fossil fuel pollutants, atmospheric deposition of nitrogen and other climate disrupting gases. This project will help.

Thank you for the consideration and if I can provide further information, please don't hesitate to reach out at 410-251-5268 or jhastings@wicomicocounty.org.

Sincerely,

Josh Hastings

Josh Hastings
Wicomico County Council, District 4
125 North Division Street
Salisbury, MD 21803