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June 20, 2024

Lisa Vest
DNREC Office of the Secretary
89 Kings Highway
Dover, DE 19901

Kimberly Cole, Administrator
Delaware Coastal Programs
100 W. Water St. STE 7B
Dover, DE 19904
DNREC\_DCP\_PublicComment@delaware.gov

Re: Comments on US Wind Permits Applications

(Subaqueous Lands, Wetlands, Beach Construction)

Docket #2024-P-MULTI-07

Dear Ms. Vest and Ms. Cole,

DNREC's potential approval of US Wind's permits applications (Subaqueous Lands, Wetlands, Beach Construction) including proposed heavy industrial high voltage cable onshoring at 3R'S State Beach Park ("3R'S") and siting through the Indian River Bay violates the Delaware Coastal Zone Protection Act. According to 7 Del. C. § 7001, "It is hereby determined that the coastal areas of Delaware are the most critical areas for the future of the State in terms of quality of life in the State.... [T]he State can better protect the natural environment of its bay and coastal areas and safeguard their use primarily for recreation and tourism." And though Delaware may consider new industries, "the protection of the environment, natural beauty and recreation potential of the State is also of great concern."

Delaware also **prohibits construction of new heavy industry** in its coastal zone, and under Del. C. § 7003, Delaware law prohibits "heavy industry uses of any kind not in operation on June 28, 1971" to violate its shores including oil and natural gas. <u>Delaware's coastal zone and state beach parks are not pre-1971 existing heavy industrial use sites</u>. Allowing **construction** of extremely high voltage industrial cable onshoring to desecrate the beach, dunes and recreation park at 3R'S will instantly destroy its environment as 3R'S includes fenced nature preserve dunes for birds such as piping plover and other wildlife.

Cable onshoring at 3R'S will also **injure recreation and tourism** as Delaware citizens and out-of-state visitors pay large fees to the State of Delaware to recreate at 3R'S and will be unnerved to swim, surf fish and recreate near extremely high voltage industrial cable where their safety and that of their children are jeopardized. This occurred on Block Island as residents were afraid to recreate at a beach park where heavy industrial turbine cable became unburied and was not reburied for years. <a href="https://www.wpri.com/news/exposed-high-voltage-line-at-block-island-beach-has-residents-unnerved/">https://www.wpri.com/news/exposed-high-voltage-line-at-block-island-beach-has-residents-unnerved/</a>. The same tourist and recreational disruptions due to fear of safety will occur in Delaware at both 3R'S and the designated Exceptional Recreational and Ecologically Significant

("ERES") waters of the Indian River Bay, where thousands of people fish, swim, sail, parasail, and boat. Environmentally, the electromagnetic fields from industrial high voltage cable siting in (ERES) Indian River Bay, a natural resource Harvestable Shellfish water, will disturb and displace crab and flounder and other wildlife critical to recreation, tourism and the local fishing and food industries in Delaware, causing people in those industries direct monetary injury, which further affects the local Delaware economy through reduced food supply, employment and tourism. In addition to illegal construction, potential safety injury to bathers, recreational and monetary injury to fee-paying citizens and tourists, monetary and livelihood injury to local businesses and patronages, Delaware may need to pay tens of millions of dollars to rebury exposed cable which is likely to occur at 3R'S where strong tidal drift and rough surf are the norm. Also, DNREC will need to request bonds from US Wind to cover all potential losses in advance as well as fund repeated cable reburying costs or anticipate spending tens of millions of dollars in lawsuits, maintenance and repair. https://theblockislandapp.com/60-million-cable-reburial-project-underway/ As such, heavy industrial high voltage cable onshoring at 3R'S and the (ERES) Indian River Bay violates 7 Del. C. \$7001 through use of those most critical coastal areas for a purpose other than recreation and tourism and any permit application for cable onshoring and siting at those locations should be immediately denied.

To permit industrial high voltage cable onshoring and siting at 3R'S and the (ERES) Indian River Bay in Delaware's Coastal Zone areas also violate 7 Del. C. §7004(b)(1) through environmental impact at both locations where "destruction of wetlands and flora and fauna" will occur and as well as the "impact of site preparation" and the "likelihood of generation of ... noise, vibration, radiation, [and] electromagnetic interference...." A study on the effects of Electromagnetic Fields (EMF) in Scotland on the development of European Lobster and Edible Crab concluded: "Chronic exposure to 2.8mT EMF throughout embryonic development resulted in significant differences in stage-specific egg volume and resulted in stage 1 lobster and zoea 1 crab larvae exhibiting decreased carapace height, total length, and maximum eye diameter," as well as "occurrence of larval deformities. ... These traits may ultimately affect larval mortality, recruitment and dispersal." https://www.mdpi.com/1597418 DNREC must consider, based on similar existing studies, the impact reduced Blue Crab harvesting in the (ERES) Indian River Bay will have on Delaware's tourism, recreational and commercial fishing and food industries. A 2021 study by Heriot-Watt University found the behavior of Brown Crabs in the UK from EMF emissions by underwater cable affected the crabs' "biology at the cellular level." The crabs were attracted to the EMF, which proved hazardous because they froze near the cables, did not forage for food, and did not seek mates. https://phys.org/news/2021-10-underwater-cables-crabs-tracks.html Most studies done on industrial wind turbine cable EMF effects for pelagic fish state inconclusive results and the need for more data. This is reason to halt permit approvals, not rush into them. And with sharks being attracted to the cables, being 14,000 times more sensitive to EMF than other fish, and even filmed biting the cables, the safety of swimmers should take precedent over any monetary funding and gifting wind companies may offer DNREC. Consequently, should DNREC permit onshoring construction and siting of heavy industrial high voltage cable at 3R's and the (ERES) Indian River Bay, it will knowingly and willingly violate 7 Del. C. \$7004(b)(1) with destruction of wetlands fauna. This positively warrants denying US Wind's cable siting permit application and at the very least warrants a moratorium on permits for US Wind until independent and unbiased studies of local

fauna injury impact by EMF can be carried out along *our coast* and in *our bay* and those studies assessed.

When onshoring of wind turbine cable occurred in Viriginia Beach, residents reported believing they were experiencing an earthquake with vibrations so strong that cracks appeared in the walls of their homes causing house foundation and future damage concerns. <a href="https://www.wtvr.com/news/local-news/dominion-energy-wind-turbine-virginia-beach-march-4-2024">https://www.wtvr.com/news/local-news/dominion-energy-wind-turbine-virginia-beach-march-4-2024</a> Knowing this, DNREC must not jeopardize the residential areas near 3R'S and knowingly and willingly cause **impact and injury** to those residents and their homes and property by permitting a foreign wind company with no ocean installation experience to construct and industrialize Delaware's coastal zone at 3R'S and in the (ERES) Indian River Bay violating 7 Del. C. \$7004(b)(1) through "likelihood of generation of ... noise, vibration, radiation, [and] electromagnetic interference."

According to the foregoing, permitting US Wind to onshore extremely high voltage heavy industrial cable in our coastal zone at 3R'S State Beach Park and subsea sit its cable in the (ERES) Indian River Bay directly violates Delaware's Coastal Zone Protection Act and the purpose of DNREC's existence and mission as well as negatively impacts and injures Delaware's recreation, tourism, fishing, and food industries and jeopardizes the safety of and monetarily injures Delaware residents and out-of-state visitors through exposure to high voltage heavy industrial cabling and injures the health and continued existence of Delaware's wetlands and subsea fauna due to radiation, EMF and industrial impact.

On a personal note, at their request, my parents' ashes were disposed just offshore of 3R'S where they spent decades recreating, swimming, fishing, crabbing, and birdwatching along its dunes. The injury to their memory and my family should DNREC so easily industrialize the sanctuary of 3R'S would be immense.

Respectfully,
Maria S. Mc Cutcheon

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https://www.wpri.com/news/exposed-high-voltage-line-at-block-island-beach-has-residents-unnerved/

https://theblockislandapp.com/60-million-cable-reburial-project-underway/

https://www.mdpi.com/1597418

https://phys.org/news/2021-10-underwater-cables-crabs-tracks.html

https://www.wtvr.com/news/local-news/dominion-energy-wind-turbine-virginia-beach-march-4-2024