

SUMMARY OF PUBLIC COMMENTS MADE AT THE GREEN ACRES SCOPING
HEARING HELD ON JULY 27, 2023

Pursuant to N.J.A.C. 7:36-26.8, an applicant for the major diversion of parkland must conduct a public scoping hearing in order to give the public the opportunity to comment on the applicant's proposed diversion. Furthermore, and pursuant to N.J.A.C. 7:36-26.8(e)(3), the applicant must provide to the New Jersey Department of Environmental Protection (NJDEP), Green Acres Program (Green Acres), a document summarizing the public comments made at the abovementioned public hearing and written comments provided to the applicant and the Department during the public comment period.

Atlantic Shores Offshore Wind Project 1, LLC (Atlantic Shores) held a scoping hearing on its application for the diversion of Green Acres encumbered lands on July 27, 2023. Specifically, the hearing addressed the proposed diversion of lands in connection with the proposed Atlantic Shores Offshore Wind Project (the Project). The proposed diversion would impact portions of parkland identified as Block 794, Lot 1 (Bader Field), Block 370, Lots 1, 1.01, 2 and 2.01 (Pallitto Field and Board of Education Parcels), and Block 1, Lots 53-60 (Beach Parcels).

James Boyd, Esq. of Archer & Greiner, P.C. served as moderator of the hearing. Brian McPeak, Vice President of PS&S, Scott McBurney, Senior Project Manager with EDR, Jennifer Daniels, Development Director with Atlantic Shores, Kate Bohanan, Project 1 Developer with Atlantic Shores and Terence Kelly, External Affairs Manager with Atlantic Shores provided an overview of the Project and the proposed diversion of Green Acres encumbered lands within Atlantic City.

This Response to Public Comments document addresses the public comments received at the public scoping hearing and the written comments that have been submitted to Atlantic Shores and the Department on or before the close of the public comment period, which ended on August 10, 2023. Appendix A includes a complete list of persons that provided either oral or written comments.

All comments have been categorized and summarized below. Duplicate comments have been combined, where appropriate. Comments have been categorized by the following topics:

- Green Acres Process General Questions
 - Green Acres Application and Public Engagement Process
 - Proposed Green Acres Diversion Areas
- Construction, Maintenance, and Land Impacts
- Public Interest
 - Public Health
 - Ocean and Turbines
 - Environmental Justice
 - Economics and Financials
 - General / Other

Below is a list of exhibits referenced in this Response to Comments document:

Exhibit A: Scoping Hearing PowerPoint presentation found online at:

[Atlantic Shores Offshore Wind | City of Atlantic City Green Acres Scoping Hearing July 2023 \(atlanticshoreswind.com\)](https://atlanticshoreswind.com)

Exhibit B: Atlantic Shores Construction & Operation Plan (COP) found online at:

[Atlantic Shores Offshore Wind Construction and Operations Plan for Commercial Lease OCS \(OCS-A 0499\) | Bureau of Ocean Energy Management \(boem.gov\)](https://www.boem.gov)

Exhibit C: BOEM Draft Environmental Impact Statement (DEIS) found online at:

<https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-offshore-wind-south-draft-environmental-impact>

Exhibit D: Atlantic Shores BPU OREC Award found online at:

<https://nj.gov/bpu/bpu/pdf/boardorders/2021/20210630/ORDER%20Solicitation%202020Board%20Order%20ASOW%20Revised.pdf>

GREEN ACRES PROCESS GENERAL QUESTIONS

Comments addressed in this section will pertain to the location, size, and specifications of the Diverted Parcels and Acquisition Process. Additionally, comments regarding the Green Acres Application process are summarized here.

Green Acres Application and Public Engagement Process

COMMENT 1: Commenters provided questions and statements regarding the public engagement process

1. Necessity of the scoping hearing when the local government supports the project (Leslie Mangold)
2. The project will be constructed regardless of public opinion (Frank Becketl)
3. NJDEP hearing comments / absence of New Jersey Department of Environmental Protection (NJDEP) from the Scoping Hearing Meeting (Eileen Barker)
4. Public notification process requirements and black / minority presence at Scoping Hearing (Keith Moore, Ronald Tuff)
5. Questioned the public outreach process (Jay Sampson)

RESPONSE 1:

Per NJDEP guidelines, the purpose of the scoping hearing is to describe the proposed diversion of four (4) Green Acres encumbered lands in Atlantic City in connection with the Project. Specifically, to present the compelling public need for the Project, proposed compensation, and to allow the public an opportunity to comment on the proposed diversion. One of the purposes of the scoping hearing is to present to the public the process used to identify and assess alternatives to the proposed diversion and reasons these alternatives were deemed unsuitable or unfeasible in accordance with the alternatives analysis process. The public is then given the opportunity to provide input on the project to Atlantic City that will be considered before a final decision is made.

The scoping hearing is a required step in the diversion application process and was held in accordance with requirements at N.J.A.C. 7:36-26.7, prior to submittal to the NJDEP of a formal application, therefore NJDEP was not present. NJDEP will be provided with a copy of the scoping hearing transcript and these public comments and responses as part of the required pre-application submittal to inform their decision making.

The public scoping hearing was properly noticed and conducted in compliance with N.J.A.C. 7:36-26.8 et seq. and all applicable law and code. For the scoping hearing, community outreach included multiple notifications including written notice to the Atlantic City Council and its various boards and commissions, posting on the City of Atlantic City website, newspaper notice within the Press of Atlantic City, physical signage posted on all 3 parcels, prior to and following the hearing, and written notice via certified mail to all persons who own land within 200 feet of each parcel. Atlantic Shores posted physical signs with notice of this hearing at all locations as required by law and code to progress the Green Acres process.

COMMENT 2: One commenter requested information regarding parking and access to the building where the scoping hearing was to be held (Sean Hanlon).

RESPONSE 2:

Atlantic Shores emailed timely information on July 27, 2023, to the commenter that included instructions to access the building and advised that staff would be available to welcome and direct attendees.

COMMENT 3: One commenter questioned the written public comment intake process (Richard Gannon, Esq).

RESPONSE 3:

In accordance with the Department's Green Acres rules at N.J.A.C. 7:36-26.8, written comments (either by email or in writing) must be submitted within two weeks of the scoping hearing (no later than August 10, 2023) to both Atlantic Shores and a copy to the Green Acres Program. The email/ mailing addresses for both Atlantic Shores and the Green Acres Program were provided in all required public notices and at the scoping hearing.

Proposed Green Acres Diversion Areas

COMMENT 4: Commenters provided questions and comments regarding available project information and concerns of misinformation in the public.

1. Concerns regarding project misinformation and alternative routes (Ray Zachmann)
2. Concerns regarding misinformed public regarding proposed cable size(s) (Regina Littwin)
3. Comment that public has the right to know complete and accurate information and concerns that the public is misinformed (Suzanne Moore, Jay Sampson)
4. Comment that the public needs available maps to understand proposed impacts to Green Acres parcels (Robert Moss)
5. Question regarding proposed compensation for Green Acres diversions (Robert Moss)
6. City code ensuring that any progress benefits the environment/climate, rather than not

(Mary Smith)

7. Question if high resolution version of CAD files will be available (James Mangin)

RESPONSE 4:

Details of the proposed Project, including the alternatives analysis, are publicly available online. Please see links to Exhibits A, B, & C above. Atlantic Shores strongly encourages the public to review these documents to obtain accurate project information. The maps of the parcels are provided in Exhibit A.

Specifically, the proposed HVAC export cables will have a maximum outer diameter of approximately 12.6 inches (in) (320 millimeters [mm]).

Pursuant to N.J.A.C. 7:36-26.10, Green acres diversion compensation is required by either replacement land, monetary compensation or other compensation. Atlantic Shores intends to propose monetary compensation, which may be used by Atlantic City for parkland improvements or open space acquisition to benefit the environment, at a ratio of 10:1 as set forth in N.J.A.C. 7:36-26.10(i)2.

High resolution CAD files will not be available however, additional Green Acres surveys and accompanying submittals will be publicly available on the NJDEP website as the Green Acres application process progresses. See: <https://dep.nj.gov/otpla/category/plc-public-notice/ga-applications/>

COMMENT 5: Commenters requested information related to proposed impacts to Green Acres parkland.

1. A commenter requested information regarding the total size of the proposed Green Acres diversion areas and the duration of the lease/easements required to install the Project (Brett Barbin).
2. Duration of construction impact to the beach and other diversion areas (Brett Barbin, Mary Smith, Amy Greene, Mike Dean, Ted Kazantzis, Jim Akers)
3. Clarify temporary construction and proposed restoration of Green Acres parkland
4. If Section 106 housing / old historic properties will be mitigated, why not others (Trevor Doyle)

RESPONSE 5:

Atlantic Shores will be requesting permanent subsurface easements across each of the four parcels. The total parcel size is 167.69 acres, and the total area of proposed diversion is 2.36 acres.

Atlantic Shores is committed to working with Atlantic City and its Board of Education to address installation timelines and to minimize disruptions during construction of the Project. All cables will be installed subsurface. Temporary disturbance will be required during construction to install the subsurface cables. No disturbance to the beach and boardwalk parcels or Board of Education boathouse parcel will occur as the cables will be installed subsurface/under these parcels using horizontal directional drilling (HDD) to avoid any impacts. There will be temporary disturbance to Pete Pallitto field, including minor excavation, as well as minimal tree clearing adjacent to Route 40 and Bader Field at the HDD drill entrance and exit locations. Compensation shall be provided

for all necessary tree clearing. Construction and the associated land disturbance will be limited to discrete areas and therefore will only impact a specific area for a short period of time, and all temporarily disturbed areas will be restored to pre-construction or better condition.

At this time, Atlantic Shores does not have a detailed duration for the construction of the onshore interconnection cable. Construction within the roadways will be temporary and short-term, however, any given segment of duct bank being installed will likely only affect a localized roadway section for a minimal amount of time, likely a few weeks. Once a segment is complete, the roadway will be restored and reopened to traffic. When Atlantic Shores has a detailed construction schedule, it will be shared with the relevant municipal authorities (including but not limited to the Atlantic City Police Department and the Atlantic City Fire Department). Atlantic Shores has made the commitment that no onshore construction will occur in Atlantic City during the summer (generally from Memorial Day to Labor Day), subject to ongoing coordination with local authorities. No meaningful effects or interruptions in service are expected for any bus routes operating along the onshore interconnection cable routes. Access for maintenance is expected to take place through manholes, thereby avoiding or minimizing additional land disturbance and impacts to transportation and traffic. Decommissioning effects are expected to be similar to construction.

Atlantic Shores is working with local municipalities to develop a Traffic Management Plan (TMP) to avoid and minimize traffic- and transportation-related effects and inform the public regarding onshore construction locations and schedules. A TMP is required from both the NJDEP and the NJDOT as part of the permit package approval. Information regarding the construction of the Project will be made available via the Atlantic Shores website, news releases, community meetings, or other means.

Atlantic Shores is federally mandated to quantify the proposed Project's impacts on historical properties and areas and propose mitigation measures to those properties. This requirement is based on Section 106 of the National Historic Preservation Act (NHPA) and is a part of the National Environmental Policy Act (NEPA) process. As Atlantic Shores progresses the Project, it has already begun the Section 106 Consultation. This process includes many consulting parties, both public and private historic property owners. In New Jersey, the primary agency working with BOEM on the consulting process is the New Jersey State Historic Preservation Office (SHPO). Atlantic Shores has developed individual Historic Properties Treatment Plans (HPTPs) and an Avoidance, Minimization, and Mitigation (AMM) plan.

Regarding non-historic properties, Atlantic Shores has designed the Project to entirely avoid impacts and/or minimize any risks to adjacent properties and will ensure its contractors utilize best management practices (BMPs) as well as conduct comprehensive and continuous monitoring during construction. In addition, Project activities are or will be covered by an appropriate bond or other approved security, as required by 30 CFR 585.515 and 30 CFR 585.516 which would address any potential property damage

COMMENT 6: Commenters provided statements regarding the proposed route through Green Acres parkland.

1. A commenter expressed concerns regarding destruction of Green Acres parkland and the intended use of Green Acres Parkland (Penny Campbell)

2. A commenter requested clarification on the alternative Atlantic City inlet locations and why this location was not a feasible alternative (Monica Malone).

RESPONSE 6:

The intended use is for subsurface cables only. There will be temporary impacts to the Green Acres parcels during construction which will be fully restored (as described in Response 5) after installation of the subsurface cables.

The alternative inlet route was not carried forward for the following reasons:

1. Increased adverse impacts to navigation, coastal wetlands, and tidal waterways.
2. Complex construction/engineering concerns.
3. Flow rates and sediment movement in the inlet and back bay areas present a significant cable burial risk (exposure of the cable). No alternative would avoid Green Acres parcels.
4. Lack of suitable mainland landfalls.

CONSTRUCTION, MAINTENANCE, AND LAND IMPACTS

Comments responded to in this section address summarized construction topics including manufacturing/ production, impacts to wildlife/ natural areas, post construction restoration, decommissioning, and infrastructure.

COMMENT 7: Commenters shared questions and comments regarding the specific locations of project facilities proposed to be constructed on or under land.

1. Presentation of cable specs is superficial – size of cables, depth of cable placement (Sheri Lilienfeld, Arthur Gager)
2. Questioned if there will be warning signs for cables (Kathy Lovullo)
3. Cable location regarding visuals and graphics should be available to public (Monica Malone)
4. Questioned proposed location(s) of underwater cables and if they will be deep enough (Monica Malone, Arthur Gager)
5. Questioned the risk of exposure of cables to residents, and risk of cable being exposed Inside Thorofare (Brett Barbin)
6. Project route was well thought out and best alternative was chosen (Ronald Tuff)
7. Open space disruption is unnecessary (Marybeth Feeney, Dora Grossman, Monica Malone)

RESPONSE 7:

The export cables to be located in state and federal waters will be up to 36 inches in diameter and buried between 5 and 6.6 feet below the sea floor which is industry standard depths. The location of the export cables will be within the identified export cable corridor as presented in Atlantic Shores' Construction and Operations Plan (COP) and the Bureau of Ocean Energy Management's (BOEM's) Draft Environmental Impact Statement (DEIS). See Exhibits B & C.

The onshore interconnection cables will be approximately 12 inches in diameter and will be installed within duct bank conduits under the roadbeds or by horizontal directional drill (HDD) under existing infrastructure (e.g., existing utility pipelines/cables) and sensitive habitats (i.e., beaches, wetlands or waterbodies).

Cable location visuals and graphics are available to the public in Atlantic Shores' COP, Sections 4.5, Table 4.5-1& Table 4.5-2 and 4.8, Figures 4.8.1A-D (Exhibit B)

At the Inside Thorofare, the onshore interconnection cables will be installed and buried well below the seabed using HDD to prevent inadvertent anchor contact, cable dragging, or cable exposure. The design depth is anticipated to be approximately 32 feet below the sediment surface of the Inside Thorofare.

As the planned construction of the onshore interconnection cables is considered a standard utility installation practice, there is no plan at this time to install above ground markers or warning signs identifying the cables nor is it required by law. The onshore interconnection cables will be installed inside a concrete duct bank under roadways and well under the ground surface where HDD occurs. The burial depth of the onshore and offshore interconnection cables will be completed following the most updated best management construction methods and safety standards. The methods and standards will provide the appropriate protection for the public and to the cables. Also, the concrete duct banks containing the onshore interconnection cables will have warning tape above the duct bank to alert future construction teams of the presence of electrical lines.

A robust and thorough analysis was conducted in the siting of the proposed route. The proposed route, including use of the beach parcels, Pete Pallitto Field, the Board of Education boathouse and Bader Field, is the most feasible, reasonable, available and practicable alternative that avoided and/or minimized environmental impacts. No feasible and available route avoided the use of Green Acres encumbered property. Any temporary disruptions will be associated with construction and will not have any long-term impact on the use of these open space areas.

COMMENT 8: Commenters shared questions and comments regarding the specific proposed construction materials, sources of those materials, and required natural resources.

1. Wind farms are not green, made of fiberglass and requiring oil to operate (Sheri Lilienfeld, Bette Rosa)
2. Sources for fiberglass, resin, electric vehicles – not green (James Dilks)
3. Questioned amount of oil needed to power turbines (Ray Zachmann)
4. Questioned amount of diesel required for ships to transport turbines overseas for installation (Kathleen Harper)
5. Turbines are powered with SF6, extremely toxic and harmful substance (Apostolos Gerasoulis, Teresa Silletti)

RESPONSE 8:

As stated in the DEIS, Section 3.1.2.5, Table 3.1-7, prepared by BOEM, the Project will result in more avoided CO₂ emissions in less than 1 year of operation than will be emitted during the entire construction of the Project.

The Project will help reduce New Jersey's net greenhouse gas emissions by approximately 4 million tons annually, equivalent to taking 770,000+ cars off the road. The Project will displace energy produced by fossil-fueled power plants, result in a net decrease in overall emissions in the region and generate potential health benefits.

Within the DEIS, Volume 1, Section 3.4.1.5, Table 3.4.1-5, a COBRA (USEPA's Co-benefits Risk Assessment) health impacts screening and mapping tool provides estimates of annual avoided health effects resulting from the Project. The results include a low to high avoided mortality estimate from 22-50 adult human mortalities and between \$243 –550 million dollars of monetized total health benefits. Also, the United States Environmental Protection Agency (EPA) estimates the social cost of carbon at \$51 per ton, thus our contributions to the decarbonizing of New Jersey's electric grid will have immediate positive impacts in New Jersey and across the region. This includes significant improvements to air quality and public health in overburdened communities (OBCs) valued at more than \$200 million over the first 20 years of Project operation.

The Project will implement BMP's and containment systems to prevent releases of oil, lubricating oils or other hazardous materials from vehicles, vessels, turbines or equipment. The Project specific Spill Prevention Control and Countermeasure plan (SPCC) and Oil Spill Response Plan (OSRP) will meet all requirements of the US Coast Guard (USCG) and the Bureau of Safety and Environmental Enforcement (BSEE). Clean fuels will be used to maximum extent practicable, and any use of marine diesel fuel will comply with the fuel sulfur limit of 15ppm, which is the same limit as Ultra Low Sulfur Diesel (ULSD). Atlantic Shores is actively evaluating opportunities to use liquified natural gas or hydrogen as the primary fuel for the main vessels used for routine O&M. Atlantic Shores will optimize construction and O&M activities to minimize vessel operating times and loads. Project tracking will include incentives for contractor fuel savings. (See COP, Section 3.1.2.7, 9.2.3, 9.2.4, and Appendix I-D for more details)

While the construction and transport of offshore Project components require the use of materials like fiberglass and oil, Atlantic Shores is committed to focusing on the best available technology for material recovery and recycling to be used upon decommissioning. Wind turbines are currently between 85-95% recyclable, any waste oils can be recycled, and Atlantic Shores plans to either reuse, recycle or responsibly dispose of all materials upon decommissioning. (See COP Volume 1, Section 6.2)

Atlantic Shores will require the use of a variety of vessels to transport materials to designated US marshalling ports and the project site to transport wind turbine components. The Clean Air Act requires that fuel usage and the associated emissions are estimated and monitored as part of the construction and operations process once a vessel is operating in US waters. Per this requirement, a summary of all anticipated vessels and conservative estimates of fuel usage is presented in the COP, Appendix II-C.

Atlantic Shores and our suppliers understand the concern regarding SF6 and are actively researching all other alternatives and are committed to limiting its use in the Project except and only as necessary. For example, in 2022, Atlantic Shores selected Vestas as its preferred wind turbine supplier. www.atlanticshoreswind.com/vesta-and-atlantic-shores/. Vestas has included SF6 on their Restricted Materials list since 2017, therefore no SF6 will be used for the turbines. If SF6 is necessary for any other components, we will take additional precautions including sealed containment. Although SF6 is used across the US in electric power systems for reliability and safety in voltage electrical insulation, current interruption and arc quenching in the transmission and distribution of electricity, Atlantic Shores will pursue a more environmentally responsible and responsive industry standard where feasible. In the case that SF6 is necessary for this Project,

several precautions are taken to ensure safe operations of the offshore and onshore substations. Any leaks detected in SF6 containing equipment will be repaired immediately following detection and Atlantic Shores will capture and recycle any SF6 removed from breakers and switches during maintenance. (BOEM DEIS, Volume 1, Section 3.4.1.8)

COMMENT 9: Commenters shared questions and comments regarding the temporary and permanent impacts of construction processes.

1. How long will construction impact the roadways/traffic flow (Monica Malone)
2. Will areas be repaved as promised (Kathy Lovullo)
3. Will there be cable leaching toxics and what the monitoring processes is for ambient air noise (James Mangin)
4. Project is minimally invasive (Jim Akers)
5. Concerns of environmental impact and unavoidable impacts on the local communities (Marybeth Feeny, Mike Dean)
6. Concern for impacts to migratory bird populations, wetlands, and natural preserves along the coast (Regina Littwin)

RESPONSE 9:

Construction within the roadways will be temporary and short-term, however, any given segment of duct bank being installed will likely only affect a localized roadway section for a minimal amount of time, likely a few weeks. Once a segment is complete, the roadway will be restored and reopened to traffic. All areas of roadways where the concrete duct banks will be installed will be restored to preconstruction or better condition (e.g., repaving). A Traffic Management Plan has also been developed in accordance with New Jersey Department of Transportation (NJDOT) requirements to minimize traffic flow impacts.

Construction hours will be developed in accordance with local noise ordinances and all other applicable local rules and regulations to minimize any temporary noise disturbance to residents during cable burial and trenching. While Atlantic Shores is not anticipating significant nighttime work, any nighttime work deemed necessary will be coordinated with the local authorities. Noise mitigation will also include noise wall barriers. Periodic maintenance of the onshore facilities may be required during the operations & maintenance phase of the Project.

There will not be any cable leaching as the cables will not contain any fluids. Additionally, the export cables will be fully encased to protect from the marine environment and prevent cable failure and the onshore cables will be contained within water-proof concrete duct banks and HDD conduits. Additional information on the cable design can be found in Atlantic Shores' Construction and Operations Plan. (COP, Volume I, Section 5.4)

Atlantic Shores has conducted over 40 unique environmental assessments and studies over the past 5 years that have supported our understanding of the existing environments and the potential effects of the Project. The detailed results of these studies are available to the public as part of both the Atlantic Shores COP and the BOEM DEIS. (See Exhibits B & C) As a result of these studies and assessments as well as stakeholder feedback, Atlantic Shores has proactively incorporated ecological, biological, and social avoidance, minimization and mitigation measures into our project construction and operations activities. For example, the Project has been designed to avoid

wetlands by utilizing HDD where sensitive habitats require crossings (i.e., beach, dunes, wetlands, waters, etc.), and does not occur within or close proximity to any natural preserves. Additionally, the Project has committed to conducting pre- and post-construction surveys and monitoring in both the onshore and offshore environment to understand the short- and long-term effect of the proposed projects and refine as necessary via adaptive management our avoidance, minimization, mitigation and monitoring measures.

Furthermore, Atlantic Shores is a member of the 2023 Steering Committee for the Regional Wildlife Science Collaborative for Offshore Wind (RWSC) <https://rwsc.org/> which is led by US federal agencies, Atlantic Coast states, eNGOs, and offshore wind companies. RWSC convenes hundreds of experts in wildlife, oceanography, seafloor habitats, offshore wind development, ocean data management modelling and data visualization to collaborate regionally and ensure a better understanding of the potential effects and mitigation strategies for the many species that interact with offshore wind development over time.

COMMENT 10: Commenters shared questions and comments regarding project maintenance and procedures.

1. How often will cable maintenance take place (Monica Malone)
2. Will cables be affected by flooding? (Kathy Lovullo)
3. Is drilling safe for community – potential for sink holes (Sheri Lilienfeld)
4. Employees will have proper training to execute duties (Ronald Tuff)

RESPONSE 10:

The proposed maintenance and inspection schedule includes annual visual and thermographic inspections of cables and terminations inside vaults that contain the onshore cables. Electrical tests will be completed every 5 years. Unscheduled cable maintenance may occur periodically and will generally be conducted at proposed manhole locations along the route. Any routine or unscheduled maintenance will be coordinated with the relevant municipality and authorities. Section 5.1 of the COP includes Table 5.4-1 Schedule of Planned Preventive Maintenance Activities.

The onshore cables will not be affected by flood as the concrete duct banks are sealed and waterproofed. While the cable will not be affected by flooding, manholes will likely require dewatering prior to access after a flooding event. In HDD locations, all cables will be encased in a high-density polyethylene (HDPE) and/or Polyvinyl Chloride (PVC) conduit to protect the cables from water ingress.

Atlantic Shores has begun and will complete all necessary geotechnical and soil investigations along the route to inform and ensure the engineering design and construction means and methods will prevent any such unlikely potential for sink holes. All construction areas will be barricaded to protect the public. To further ensure safety, HDD operators and crew will continuously monitor throughout the duration of the HDDs and adjust the drilling mud mix and pressure accordingly. In addition, post construction monitoring and maintenance of all right of ways (ROWs) will occur as needed.

All Atlantic Shores employees will have the necessary training to execute their duties including

construction, operations, and maintenance. Additionally, contractors hired by Atlantic Shores will be required to have the necessary training to execute their role(s) on a project.

COMMENT 11: Commenters shared questions and comments regarding cable decommissioning.

1. Where do turbines go when decommissioned (Brett Barbin, James Mangin)
2. Turbine components are not recyclable (Kathleen Harper)

RESPONSE 11:

Once commissioned, offshore wind projects are designed to operate for up to 30 years. When the wind turbines are decommissioned, first the components will be drained of any fluids and chemicals according to the established operations and maintenance procedures and the Oil Spill Response Plan (COP Volume I, Appendix I-D Draft Oil Spill Response Plan [OSRP]), which will be collected and properly disposed of or recycled. <https://www.energy.gov/eere/wind/wind-turbine-sustainability>

Before the turbines are removed, inter-array cables will be disconnected. Wind turbine components will then be disassembled and removed from their foundations, shipped to shore, and recycled or scrapped. <https://www.energy.gov/eere/wind/wind-turbine-sustainability> Removing the turbine blades, rotor, nacelle, and tower will involve the use of vessels with cranes that are similar to those utilized for installation and assembly. There is significant ongoing research regarding the recycling of wind turbine blades to contribute to a circular economy of the wind industry. Today, between 85% and 90% of a wind turbine, such as the tower and nacelle components, can be recycled. <https://www.energy.gov/eere/wind/wind-turbine-sustainability>.

Export cables, inter-array cables, and inter-link cables (if present) will either be retired in place or removed from the seabed. The decision regarding whether to remove these cables and any overlying cable protection will be made based on future environmental assessments and consultations with federal, state, and municipal resource agencies. For example, if cable protection is functioning as reef habitat, it may be less disruptive and more beneficial to leave such structure undisturbed on the seabed. If it is determined that offshore cables should be removed from the seabed, removal will occur in a similar manner to installation but in reverse, and any overlying cable protection will need to be removed first, then the cables will be extracted from the seabed. After being removed from the seabed, cables will be coiled onto reels or cut into manageable lengths and transported to port for recycling.

COMMENT 12: Commenters shared questions and comments regarding electricity production of turbines.

1. Commented on or questioned that 700,000 homes would be powered by wind turbines (Carolyn Rush, Ronald Tuff, Mike Dean, James Thompson, Amy Greene)
2. Only three months of electricity generated (Arthur Gager)
3. Is there a means of storage for electricity produced (Arthur Gager)
4. Concern raised about amount of electricity produced in relation to permanently altering the environment (Dora Grossman)
5. Electrical grid will run out by 2030 (Jim Akers)
6. NJ will have 100% clean energy by 2035 (Karen Fitzpatrick)

RESPONSE 12:

Atlantic Shores does not concur with the comment that only three months of electricity will be generated. On June 30, 2021, the NJ Board of Public Utilities issued an order awarding Atlantic Shores a 20-year OREC (offshore renewable energy certificate) for our 1510 MW offshore wind project, which is the single largest award in the state and the second largest awarded offshore wind project in the US., enough to power 700,000 homes (See the OREC- Exhibit D). To calculate electricity production, Atlantic Shores used technical capacity factors for New Jersey (45%) according to the National Renewable Energy Laboratory (NREL) offshore wind resource potential assessment ([Musial et al. 2016](#)) and US Energy Information Administration ([EIA](#)) on average monthly electricity use by residential customers by a state to achieve household equivalency. (#1, #2) NJ Executive Order 92 requires the New Jersey Board of Public Utilities (NJBPU) to fully implement the Offshore Wind Economic Development Act of 2010 (OWEDA) so NJ may achieve 7500 MW of offshore wind energy by 2035, to fight against the impacts of climate change. Additionally, New Jersey Governor Phil Murphy signed Executive Order No. 307 on September 22, 2022, which increased New Jersey's offshore wind goal by nearly 50% to 11,000 megawatts (MW) by 2040 and directs the NJBPU to study the feasibility of increasing the target further. The NJBPU, the NJ Department of Environmental Protection (NJDEP), the NJ Economic Development Authority (NJEDA), and other state agencies are responsible for taking all necessary actions to implement OWEDA and meet the new goal of 11,000 MW goal for 2040.

Climate change is an eminent threat to NJ's economy, and the health, safety and welfare of NJ's residents. The effects of climate change are felt throughout NJ via the threat of flooding, the number and severity of storms, and the environmental effects from the increase in average yearly temperatures. Fossil fuel emissions impact NJ's air quality, threatening NJ resident's respiratory health and quality of life. Deploying low-carbon energy sources, including large-scale renewables like offshore wind, is an essential solution for cutting greenhouse gas emissions to combat global warming. The environmental and public health benefits of offshore wind far outweigh temporary construction impacts and green clean energy sources are necessary to supplement NJ's ever expanding energy needs. Also see Response 8.

Grid-scale storage technologies capable of storing large amounts of electricity produced from offshore wind are becoming more widely available and deployed across New Jersey but there is no storage component to this Project.

COMMENT 13: Commenters shared questions and comments regarding environmental impacts

1. Questioned required tree clearing and noted positive relationship between vegetation and carbon dioxide levels (Jackie Delario)
2. Will the water table/aquifer be impacted (Sheri Lilienfeld)
3. Questioned if there is migration from HDD (James Mangin)

RESPONSE 13:

The construction and installation of the cables on Bader Field will require minimal landscape tree clearing. In accordance with NJAC 7:36-26.10(c)4, for any tree clearing that involves the removal of any tree of significant size (with a DBH of 18 inches or greater), or the clear cutting of more than 0.5 acres, Atlantic Shores shall provide a plan to either replace or provide compensation for the removal of such trees. All reasonable efforts will be made to preserve trees at Bader Field as

trees help protect against climate change as vital carbon sinks. If tree removal is unavoidable, compensation will be provided as required.

Atlantic Shores has conducted and will complete extensive geotechnical and soil surveys of the entire Project route to support the understand the existing environment and support the engineering design of the onshore facilities as well as the intended construction means and method to prevent impacts to the water table/aquifer. Atlantic Shores will utilize both open trenching and HDD to install underground cables along a prescribed route. HDD is being utilized to cross under environmentally sensitive areas such as dunes, wetlands and waterways to prevent disturbance to these areas. Due diligence and pre-drill geotechnical investigation is critical for the design of a successful HDD, to ensure a bore does not migrate beyond intended bore path and will be completed prior to construction. Atlantic Shores will be following an NJDEP approved HDD plan and the drilling fluid pressures will be carefully monitored during drilling and kept below maximum allowable pressures to ensure and minimize any risk to aquifers. Atlantic Shores and its contractors will obtain and comply with the necessary dewatering permits as needed to ensure stable and dry conditions, as well as soil stability, for interconnection cable installation. Adherence to all dewatering permit conditions, continuous monitoring and implementation of BMP's will be required by Atlantic Shores and its contractors to ensure both worker and public safety as well as protection of the aquifer and any shallow water tables.

PUBLIC INTEREST

Comments and responses detailed in this section address topics including Public Interest, Public Health, Environmental Justice, and Economy. Additionally, Electromagnetic Fields (EMF), Climate change, and National security topics are presented.

Public Interest – Public Health

COMMENT 14: Commenters shared comments and questions regarding the purpose of offshore wind initiatives and weighing environmental and public health impact versus benefits.

1. “Green” energy is deceiving, and this Project utilizes as many fossil fuels as any (Jennifer Guarino, Marybeth Feeney, Apostolos Gerasoulis)
2. Lack efficiency – when wind does not blow no power generated (Kathleen Harper)
3. Less harmful alternatives to wind energy (Lee Darby)

RESPONSE 14:

Atlantic Shores does not agree that wind energy is harmful. Pursuant to the Green Acres regulations, the Project satisfies a compelling public need “by mitigating a hazard to the public’s health, safety or welfare” (N.J.A.C. 7:36-26.1(d)1i) and will yield significant public benefit by helping mitigate the risks of global climate change on NJ and its residents. There are multiple sources of alternative clean, carbon free energy to speed the US’s transition away from fossil fuels, stem the effects of climate change and increase energy independence, including but not limited to solar, wind, nuclear and geothermal energy. All of these alternatives are necessary to reduce dependence on fossil fuels, including development of this Project in order to meet NJ’s energy goals to reduce non-renewable energy production, and includes specific offshore wind mandates. See Responses 8 and 15.

In addition to the Project’s contribution towards meeting NJ’s renewable energy goals, the Project

will also create additional benefits such as by creation of artificial reefs due to placement of wind turbine generators, improvement of regional air quality through the net reduction of regional air pollution over the lifecycle of the Project, as well as an increase in jobs. See Exhibits B and D.

Offshore wind turbine lease areas have been sited by BOEM to take advantage of available consistent wind resources. See link for data related to consistent Atlantic wind resource estimates offshore.(#2) <https://www.energy.gov/eere/wind/articles/top-10-things-you-didnt-know-about-wind-power>

COMMENT 15: Commenters provided statements and questions regarding the overall purpose and need for the project, as well as the public benefit of the project.

1. The project promotes public interest and benefit (Heidi Yeh, James Thomson)
2. Potential public good and environmental stewardship (Ronald Tuff)
3. Project is compliant and benefits the community (Carolyn Rush)
4. The Project is legally and scientifically compliant (Jim Akers)
5. There are cheaper, more plentiful energy sources other than wind (Frank Becktel)
6. Public is being told false advertisements regarding electrification and green energy. (James Dilks)

RESPONSE 15:

Atlantic Shores acknowledges all comments and agrees with many of the comments above.

Offshore wind has the potential to deliver large amounts of clean, renewable energy to fulfill the electrical needs and interests of the public along U.S. coastlines. Under conditions that foster offshore wind utilization, the [National Renewable Energy Laboratory estimates](#) that the technical resource potential for U.S. offshore wind is more than 4,200 gigawatts of capacity, or 13,500 terawatt-hours per year of generation.

For communities working with offshore wind on critical infrastructure, these projects will provide beneficial tax revenue that helps states, cities and towns hold the line on property taxes.

New Jersey's demand for electricity is rising – just like it is across the United States. One of the less talked about benefits of wind energy is its health impacts. The clean air from emissions reductions will save tens of thousands of lives and will drive down health care costs related to conditions like lifelong asthma. The Project will help reduce New Jersey's net greenhouse gas emissions by approximately 4 million tons annually, equivalent to taking 770,000+ cars off the road. Also, as noted in Response 8, the United States EPA estimates the social cost of carbon at \$51 per ton. The Project's contribution to the decarbonizing New Jersey's electric grid will have immediate positive impacts across the region, with a significant uplift to air quality and public health in overburdened communities (OBCs) valued at more than \$200 million over the first 20 years of the Project's operation.

Regarding legal and scientific compliance, the Project is considered critical infrastructure under FAST-41. https://www.permits.performance.gov/sites/permits.dot.gov/files/2022-09/FPISC_090922.pdf

In addition, the Bureau of Ocean and Energy Management (BOEM) has the legal authority under

the Outer Continental Shelf Lands Act (OCSLA)² to authorize renewable energy activities on the Outer Continental Shelf (OCS). Executive Order 14008 directs the shared goals of the federal agencies to deploy 30 gigawatts (GW) of offshore wind energy capacity in the United States by 2030, while protecting biodiversity and promoting ocean co-use; and in consideration of the goals of the Atlantic Shores, the purpose of BOEM's action is to determine whether to approve, approve with modifications, or disapprove Atlantic Shores' COP.

As Atlantic Shores Project is proposed in Federal waters administered by BOEM, as well as state waters, the Project is subject to robust regulatory review at the Federal and state level. The project must be in compliance with the National Environmental Policy Act (NEPA), the Marine Mammal Protection Act (MMPA), the Endangered Species Act (ESA), the Clean Air Act, the National Historic Preservation Act (NHPA), the Coast Zone Management Act (CZMA), Section 10 of the Rivers & Harbors Act, Section 404 of the Clean Water Act, and the US Army Corps of Engineers' (USACE) Section 408 program. The Project will be regulated under additional Federal and New Jersey state laws and regulations as applicable, including by the New Jersey Department of Environmental Protection, as well as local and county laws and regulations.

Offshore wind along the Atlantic coast of the US is plentiful and a valuable energy resource that can provide clean power at times of peak energy demand. See also NJ Executive Order #8 at: [Microsoft Word - EO#8 \(nj.gov\)](#) and Executive Order#307 at: [Microsoft Word - EO-307 \(nj.gov\)](#)

To confirm the quality of the wind regime off the coast of the US, numerous floating lidar systems were deployed by Atlantic Shores and the New York State Energy Research and Development Authority (NYSERDA). Atlantic Shores has deployed four (4) floating lidar systems and NYSERDA has done so at three (3) locations. These buoys collect data about wave heights and periods, current speed and directions at various depths, meteorological and oceanic parameters (i.e., air and water temperature, air pressure, etc.). They all also collect data using state of the art Lidars that measure wind speed and directions at several heights above the sea surface. Data collected by all these seven buoys have been made publicly available as early as the fall of 2019. The measurements have confirmed a strong and consistent wind regime off the NJ coastline. See buoy data at the bottom of the Atlantic Shores website. <https://www.atlanticshoreswind.com/>

COMMENT 16: Commenters expressed concern regarding safety of the project, proposed cables, and concerns related to Electromagnetic Fields (EMF) emitted from the underground cables (Judy Tyson, Ted Kazantzis, Monica Malone, Arthur Gager, Lee S. Darby, Bette Rosa, Nancy Hollingsworth, Val Demaio, Leslie Mangold, Ray Zachmann, Kathleen Harper, Mary Smith, Teresa Silletti, Apostolos Gerasoulis, James Mangin, Tim Wilkins).

1. Commenters stated that EMF has been linked to cancers and other diseases, and that insufficient studies have been completed.
2. Commenters were concerned with the risk of electrocution, as well as EMF monitoring.
3. Cables operate at 349 milliGauss (mG) v. 4 mG (potentially dangerous) (Judy Tyson)
4. International Commission for Non-Ionizing Radiation Protection guidelines fail to meet fundamental scientific quality requirements, and Atlantic Shores follows these guidelines (Judy Tyson)
5. One commenter expressed health and safety concerns related to potential malfunctioning of the turbines and during construction/drilling, i.e., fires/explosions (Eileen Barker).

RESPONSE 16:

The comment that EMF causes cancer is not supported by any health authority, including WHO, the International Agency for Research on Cancer, the Centers for Disease Control and Prevention, the U.S. National Cancer Institute and the National Institute for Occupational Safety and Health.

The primary guidance with respect to EMF exposure from power lines and related facilities has been developed by national and world health organizations; these guidelines are designed to be protective against any adverse health effects. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) has published guidelines on magnetic and electric field exposure which have been endorsed by the World Health Organization (WHO).

Additional information provided by BOEM on offshore wind farms and EMFs can be found here: [Environmental Studies – Electromagnetic Fields from Offshore wind Facilities \(boem.gov\)](https://www.boem.gov/environmental-studies-electromagnetic-fields-offshore-wind-facilities)

Atlantic Shores is proposing to install the Project's onshore interconnection cables underground. Along the route, the onshore interconnection cables will be installed in buried concrete duct banks, with each cable housed in a HDPE or PVC conduit. Typical cover over the buried duct bank (e.g., along roadway ROWs) will be a minimum of 3 ft (0.9 m). Importantly, electromagnetic fields from underground cables are readily blocked by the cable sheath and intervening concrete, soil, and other materials. Underground electric power cables have been used for many decades in urban environments and are the preferred means for onshore transmission in the offshore wind industry. Accordingly, underground transmission cables such as those proposed by Atlantic Shores do not create a risk of public exposure to electromagnetic fields or electrocution.

Magnetic fields are measured in mG and decline rapidly with distance from a power source. Common household items have magnetic fields in the range of 10 mG to 600 mG depending on the distance from the source.

Atlantic Shores conducted an extensive EMF assessment, including modeling of magnetic field levels in the immediate vicinity of the landfall sites, the underground onshore interconnection cables, and the onshore substations and/or converter stations (COP, Volume II Appendix II-I).

To assess EMF at the landfall sites, the Projects' cables were conservatively modeled using a full load current of 1,200 amps at 275 kV. The maximum modeled magnetic field at the seabed at each landfall site is shown as approximately 1 amperes/meter (A/m) or approximately 12.5 mG. The modeled peak value of 12.5 mG is less than 1% of the ICNIRP health-protective magnetic field guidance of 2,000 mG.

The HVAC underground onshore interconnection cables were modeled using a current of 1,200 amps at 230 or 275 kV for several different ROW configurations (e.g., roadway, bike path, existing ROW, etc.). In all cases, the modeled magnetic fields are well below the health-protective magnetic field guidance per ICNIRP of 160 A/m or 2,000 mG. The HVDC underground onshore interconnection cables were modeled using a current of 2,000 amps at 320 or 525 kV. These modeled results are well below the applicable ICNIRP health protective guideline for static magnetic fields (400 A/m or 5,000 mG). To analyze a combined HVAC/HVDC onshore

interconnection arrangement, a single scenario was modeled with four 275 kV HVAC circuits and one 525 kV HVDC circuit in a single trench. These modeled results are well below the applicable ICNIRP health protective guideline for time-varying magnetic fields (180 A/m or 2,000 mG).

An offshore EMF assessment was also conducted and determined peak levels ranged from 60.07-349.22 mG, which are low levels, therefore are not expected to pose a risk to benthic invertebrates. (COP, Volume II, Section 4.5.2.4)

In the highly unlikely event that severe weather or equipment malfunctions cause a spill or release of oils or other hazardous materials, Atlantic Shores has developed a Project-specific Oil Spill Response Plan (COP Volume I Appendix I-D Draft OSRP) that meets the requirements of the USCG and the Bureau of Safety and Environmental Enforcement. As a precautionary measure, the offshore substations (OSSs) and wind turbines will also include secondary containment for oil-filled equipment to prevent discharges or inadvertent releases due to equipment malfunction or breakage. This extra layer of containment measures is geared to prevent spills from reaching the environment and remaining within the internal equipment of offshore infrastructure.

Project personnel will undergo routine training on the content of the OSRP to ensure they are familiar with the OSRP's requirements and are prepared to respond to emergencies. In addition to the overarching OSRP, contractors will also have plans to immediately contain and stop a spill in accordance with applicable regulations.

While highly unlikely, it is possible that the Project could experience structural, electrical, or hydraulic failure. To minimize the possibility of significant component failure, the Project will undergo a thorough and well-vetted structural design process in accordance with applicable standards and based on site-specific conditions both onshore and offshore. To further reduce the risk of significant damage, interruption of service, or other corrective maintenance, Atlantic Shores will adhere to a rigorous monitoring, inspection, and preventive maintenance program throughout construction and operation. Additionally, during operations all facilities associated with the Project, including the wind turbine generators and OSSs, will be continuously monitored 24 hours per day for the lifetime of the Project by a supervisory control and data acquisition (SCADA) system. The SCADA system is configured to monitor not only the Project's production but also the health of the equipment and will provide notifications to the project operators of any alarms or warnings from the Project's components. The SCADA system also provides remote control of the Projects' equipment, allowing the operator to override automatic operations, remotely reset the Projects' systems, adjust control parameters, and shut down equipment for maintenance or at the request of grid operators, regulators, or search and rescue (SAR) (e.g., shut down upon the USCG's request).

Onshore, significant damage to Project concrete duct bank and splice vaults, which are buried underground, is extremely unlikely but may occur due to severe weather or other natural events. There is also a remote possibility that the duct bank or splice vaults could be damaged by an unrelated construction project. If the duct bank or splice vaults are damaged, any overlying cover would be excavated, and the damaged section would be repaired. (COP, Volume I, Section 5.4.5)

COMMENT 17: One commenter raised national security concerns and the potential for

interference with radar/military operations (Lee S. Darby).

RESPONSE 17:

Potential interactions with military and radar operations are discussed in Atlantic Shores' COP, Volume II, Section 7.7 and 7.8 respectively. These sections also describe the measures that Atlantic Shores will take to minimize any potential impacts to these operations (refer specifically to sections 7.7.12 and 7.8.7). Atlantic Shores has also signed a Radar Mitigation Agreement with the Department of Defense and is required to obtain an additional Mitigation Agreement in coordination with the United States Navy and the Department of Defense before Operations can begin. These documents are publicly available on BOEM's website: [Atlantic Shores Offshore Wind Construction and Operations Plan for Commercial Lease OCS \(OCS-A 0499\) | Bureau of Ocean Energy Management \(boem.gov\)](https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-offshore-wind-construction-and-operations-plan)

In accordance with Atlantic Shore's Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS-A 0499) (Lease Agreement) as issued by BOEM Commercial, Atlantic Shores is also legally bound to communicate with the United States Military and abide by any requests to suspend operations in the unlikely event of a national security concern. Specifically, in Atlantic Shores' Lease Agreement Section 3.2.1 General, it states: "The Lessee [Atlantic Shores Offshore Wind] hereby recognizes and agrees that the United States [military] reserves and has the right to temporarily suspend operations and/or require evacuation on this lease in the interest of national security pursuant to Section 3(c) of this lease."

The Lease Agreement also states in Section 3.2.5 Coordination with Command Headquarters that: "The Lessee [Atlantic Shores Offshore Wind] must establish and maintain early contact and coordination with the appropriate command headquarters, in order to avoid or minimize the potential to conflict with and minimize the potential effects of conflicts with military operations." <https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-offshore-wind-construction-and-operations-plan>

COMMENT 18: Several commenters provided comments and questions related to climate change and greenhouse gases.

1. How will air quality be impacted by this Project (Amy Greene)
2. How greenhouse gas quantities might change (James Thompson, Ronald Tuff, Carolyn Rush, Amy Greene)
3. If fossil fuels and other sources (sulfur hexafluoride [SF6]) will be necessary (Val DeMaio, Arthur Gager)
4. Wind turbines are best alternative in tackling climate change (James Thompson, Andrew Sanford) The climate will continue to change with or without the completion of this Project (Frank Becktel, Mike Dean, Nancy Hollingsworth)
5. The promises of this Project's improvements to the climate are false and this is not 'green' (Mike Dean, Kathleen Harper, Jennifer Guarino)
6. Offshore wind will be deleterious on ocean and factors such as wind speed wave height, humidity, air temp, water temp (Leslie Mangold, Patty Deroo)
7. External factors contribute to climate change; acidification and coal usage for example (Tim Wilkins)
8. Dual purposed designs (base of turbine filtering plastic out of water) would make this Project highly beneficial (Andrew Sanford)

RESPONSE 18:

Atlantic Shores acknowledges these comments.

Climate change poses the single largest threat to our oceans and our planet's future. Greenhouse gas emissions need to reach net zero by 2050 to keep global warming under 1.5 degrees Celsius, which is the threshold scientists have set to slow the most severe impacts of climate change. The US is pursuing multiple climate mitigation goals, including the goal for 100% carbon pollution free electricity by 2035 and has created a long-term strategy. See <https://www.whitehouse.gov/wp-content/uploads/2021/10/US-Long-Term-Strategy.pdf>

This requires every energy sector to transform, particularly electricity production, which is currently responsible for approximately 25% of greenhouse gas emissions globally. See <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data>

Generating clean renewable energy from sources such as wind and solar is necessary to decarbonize the electricity sector to address the climate crisis and build a clean energy economy. The clean energy economy also benefits our planet's future by generating highly beneficial scientific datasets and knowledge. Over the past 5 years, Atlantic Shores has characterized and monitored offshore conditions using buoys and vessels, where possible. We are planning to design dual-purpose offshore infrastructure, capable of collecting important meteorological (wind speed, air temperature) and oceanographic data (wave height, water temperature) to support highly beneficial environmental monitoring. Atlantic Shores has found no research or evidence that the Project's offshore wind turbines will alter humidity, wave height, wind speeds etc.

BOEM has stated that in addition to reducing carbon emissions, offshore wind farms may improve human health by replacing fossil fuel-based power plants thus reducing the air pollution from fossil fuels. While offshore wind turbines can generate some air emissions during their life cycle, they are a cleaner source of energy (BOEM DEIS Volume 1, Section 3.4.1.2). The U.S. East Coast has robust wind conditions with little variability making it the ideal siting location for offshore wind turbines to bring clean renewable energy to New Jersey. After less than 1 year in operation, all further operation of the Projects results only in net benefits (through avoided CO₂ emissions). (BOEM DEIS Volume 1, Section 3.6.4)

BOEM estimates that the Project will emit approximately 274,671 metric tons of CO₂ during construction. During operations, the Project will result in a net 3.12 million metric tons of avoided CO₂ emissions each year, for a total of 92.8 million metric tons of avoided CO₂ emissions over the 30-year lifetime of the Project.

Atlantic Shores Project will help reduce New Jersey's net greenhouse gas emissions by approximately 4 million tons annually, equivalent to taking 770,000+ cars off the road. The Project will displace energy produced by fossil-fueled power plants, result in a net decrease in overall emissions in the region and generate potential health benefits. Also, the United States Environmental Protection Agency (EPA) estimates the social cost of carbon at \$51 per ton, our contributions to the decarbonizing New Jersey's electric grid will have immediate positive impacts in New Jersey and across the region. This includes significant improvements to air quality and

public health in overburdened communities (OBCs) valued at more than \$200 million over the first 20 years of the Project's operation. See Response 15.

Air emissions from Project construction, operations and maintenance (O&M), and decommissioning activities are directly associated with internal combustion engines generating power for vessels, vehicles, and tools/equipment needed to support the Project. The maximum offshore and onshore-build-out of the Project from these activities and sources was analyzed to assess potential effects on air quality (see Exhibit B - Atlantic Shores' COP, Volume II Appendix II-C Air Emissions Calculation Methodology). These emitting activities in the on and offshore project areas will be subject to air quality requirements under the Clean Air Act (40 CFR Part 55) and implementing NJ DEP regulations. In accordance with these regulations, Atlantic Shores will be required to document compliance with ambient air standards, implement state-of-the-art emission controls, and obtain emissions offsets for construction.

Atlantic Shores agrees that dual purpose designs would benefit and enhance the Project goals and is committed to utilizing the most advanced technologies and materials for all wind turbine and tower components as well as for all necessary service vessels and operational needs.

Public Interest – Ocean and Turbines

COMMENT 19: Several commenters provided questions and comments regarding physical turbine disruption in the area.

1. The wind turbines will have a negative visual impact. (Dora Grossman, Phil and Jenn Field, Teresa Silletti, Apostolos Gerasoulis, Kathy Lovullo, George Ingram, Nancy Hollingsworth)
2. Sea level rise is leading to obstructed views plus additional obstructions by turbines (Carolyn Rush)
3. Other commenters had concerns over the flashing lights on the turbines contributing to light pollution and disrupting wildlife (Lee Darby, Val Demaio)
4. Turbines will be very noisy and disruptive (Jackie Delario)

RESPONSE 19:

The New Jersey Wind Energy Area (NJWEA) in which Atlantic Shores' lease area is located was identified as suitable for offshore renewable energy development by BOEM through a multi-year, public environmental review process. Through this review process, the NJWEA was sited to exclude areas of high value habitat and conflicting water and air space uses.

At its closest point, the Wind Turbine Area (WTA) is approximately 8.7 mi (14 km) from the New Jersey shoreline (as measured from the northernmost edge of Brigantine City in Atlantic County). The WTA is also 9.4 mi (15.1 km) east of Atlantic City, 16.3 mi (26.2 km) east of Ocean City, 25.3 mi (40.7 km) south of Barnegat Light Borough, and 35.7 mi (57.5 km) northeast of Wildwood.

Atlantic Shores prepared a visual simulation that is available in Atlantic Shores' COP, (Volume II, [Appendix II- M1 Visual Impact Area](#)) that depicts what the Project will look like from these locations as well as other locations along the New Jersey coastline including views from key observation points (KOPs) that consider the clearest viewing day conditions based on meteorological data and the maximum design case of the project.

Atlantic Shores worked with Rutgers University and used precise meteorological data from airports to determine that one out of every four or five days is considered clear along the entirety of the south New Jersey coast. Using this data, Atlantic Shores' visual simulations show the wind turbines on exceptionally clear days that are expected to occur approximately 25% of the year. For additional information watch [Atlantic Shores – Visual Assessment](#).

In addition, simulations of the wind turbines at night that depict the proposed Atlantic Shores South Offshore Wind Farm's Aircraft Detection Lighting System (ADLS) are also available. ADLS is only activated when an aircraft flies within 3 nautical miles of the wind farm area at an altitude less than 2,000 feet. At all other times, the lights are off.

Based on the ADLS Efficacy Analysis (Atlantic Shores' COP, Volume II Appendix II-M4), the aviation obstruction warning lights would be activated for a total of approximately 8.7 hours over a one-year period. The maximum monthly activation time would occur during November when past flight data suggest activation times would be approximately 2 hours and 40 minutes over the entire month. April, May, June, August, September, and October had the lowest activation frequency with an average activation time of 14 minutes per month.

With respect to noise from operational wind turbine generators (WTGs), sounds of different frequencies are emitted by WTGs as they operate, related to both the aerodynamics of the turbine blades as they rotate and the mechanical sounds of the internal mechanism of the turbine. Noise levels near the WTG will be audible but sound levels diminish rapidly with distance. At a distance of 1,000 ft (~300 m), the sound pressure is on the order of 50 dBA, a level lower than normal conversation. In this case, operational noise from the offshore WTGs will not be audible onshore. (See COP Volume II, Appendix II-U: Onshore Noise Report for additional information).

COMMENT 20: Commenters expressed concerns and questions regarding the oceanic ecosystem and commercial fishing industry.

1. Similar projects have yielded an increase in ecosystem health post turbine installation (Christine Clarke)
2. Concerns of marine mammals negatively impacted by noise and construction, concerns of impacts resulting in marine life death (Penny Campbell, Jackie Delario, Dora Grossman, Bonnie Haerberle, Ray Zachmann)
3. Commercial fishing industry will be negatively impacted (James Dilks, Dora Grossman, Kathleen Harper, Marybeth Feeney)
4. Income loss due to industry impacts (Phil and Jenn Field)
5. Ocean deserves preservation (Leslie Mangold)

RESPONSE 20:

Atlantic Shores acknowledges all comments and provides a link to the Block Island Wind Farm study that clearly linked mussel-dominated colonization of the wind turbine structures, which also hosted numerous indigenous fish species. [Offshore Wind Energy and Benthic Habitat Changes: Lessons from Block Island Wind Farm | Oceanography \(tos.org\)](#)

At this time, no offshore wind construction activities have taken place in waters off the New Jersey

coast. Offshore wind site characterization surveys have been conducted in this region and all activities have been permitted by NOAA Fisheries and BOEM and determined to be safe for marine mammals. BOEM and NOAA (the lead federal agency for marine mammal science and management) have found that there is no scientific evidence that noise resulting from offshore wind surveys could potentially cause mortality of whales. There are currently no known links between recent large whale mortalities and ongoing offshore wind surveys.

Additionally, the Marine Mammal Commission, an independent government agency, and the NJDEP have similarly determined that there is no evidence these activities have caused serious harm to whales. The humpback whales that have been stranded along the Atlantic coast this past winter are part of the Humpback Whale Unusual Mortality Event declared by the National Marine Fisheries Service that began in 2016. Per the Marine Mammal Stranding Center, marine mammal stranding rates do fluctuate annually with some years having higher rates of strandings than other years.

Atlantic Shores Offshore Wind works closely with NOAA and BOEM to mitigate any potential harm to marine mammals, including the following:

1. Specific to our lease areas, since 2019, Atlantic Shores Offshore Wind survey teams at sea have logged more than one million staff-hours over the course of 1,850+ workdays with zero adverse whale interactions, and zero incident or injury to any marine mammals.
2. The NOAA work authorizations issued to Atlantic Shores do not authorize mortality or serious injuries to marine mammals or endangered species. We deploy mitigation measures including the use of exclusion zones and formally trained, NOAA-approved, third-party protected species observers (PSOs) on every vessel who are responsible for visually observing and listening for marine animals. PSOs have full authority to immediately cease survey operations to avoid potential harm to marine mammals if they enter the exclusion zone and all detections are recorded and shared with NOAA.

The same rigorous safety standards remain in place for site planning as we transition into construction and operation. With reference to concerns for marine life over the course of an offshore wind project's lifecycle, we can look to the United Kingdom and its 2,652 offshore wind turbines currently in operation.

Experts have found no connection between these projects and harm to marine mammals. Our record speaks for itself. Atlantic Shores has conducted more than 40 unique environmental impact assessments, evaluated existing traffic with the USCG, and initiated numerous studies to assess potential impacts to both commercial and recreational fishing with Rutgers and Stockton Universities. Atlantic Shores has conducted years of extensive stakeholder engagement, surveys, and studies on New Jersey's environmental resources and potential impacts for all phases of the Project. This includes onshore and offshore wildlife surveys, field surveys and desktop assessments of terrestrial and marine habitat, wetland and waterbody delineations, noise exposure assessments, EMF assessments, air quality and emissions impact analysis, and more.

Additionally, through the federal permitting process, the Project has been subject to environmental review by BOEM and cooperating agencies such as NOAA, National Park Service, U.S. Fish and Wildlife Service, U.S. Army Corps. of Engineers, U.S. Environmental Protection Agency, and the

NJDEP. This May 2023, BOEM published the DEIS for the Project. The DEIS describes in detail the potential benefits and impacts of the Project, including fisheries resources, and the environmental protection and mitigation measures Atlantic Shores will be implementing.

As detailed in the BOEM DEIS, Benthic resources may experience a range of impacts, from negligible to moderate adverse due to noise from pile installation activities and habitat disturbance from dredging, and moderate beneficial impacts are possible from habitat conversion of project structures. Birds may experience moderate impacts depending on the location, timing, and species affected by an activity, as well as potential minor beneficial impacts associated with foraging opportunities for marine birds.

Impacts to coastal habitat and fauna are expected to be negligible to minor due to the previously developed and urbanized landscape where most Project activities will occur, and measures taken to avoid sensitive habitat. Fish, invertebrates, and essential fish habitat are also expected to have a range of impacts, from negligible to moderate adverse and minor beneficial; the most significant adverse impact is from seafloor disturbance which would be short-term for submarine cable installation and long-term from the presence of structures. For marine mammals, odontocetes (i.e., toothed whales, dolphins, porpoises) and pinnipeds (i.e., seals, sea lions) are anticipated to have negligible to minor adverse impacts to individuals but no stock-or population-level impacts are expected, and possible minor beneficial impacts due to increased foraging opportunities. Mysticetes (i.e., baleen whales) may experience moderate impacts due to the presence of structures and associated potential for gear entanglement. Impacts to sea turtles should be negligible to minor adverse mainly from pile-driving noise, and minor beneficial impacts due to increased foraging opportunities resulting from the presence of Project structures. Moderate impacts are anticipated for wetlands from temporary disturbance and unavoidable permanent impacts from construction activities.

Atlantic Shores is committed to implementing a comprehensive resource protection, monitoring and mitigation program to avoid and minimize impacts to the environment during all phases of the Project. This includes proposed protection measures specifically geared toward sensitive resources, such as North Atlantic Right Whales. Atlantic Shores has also worked in cooperation with agencies to develop monitoring procedures that employ best management practices and innovative technologies such as passive acoustic monitoring offshore for marine mammals. Project activities will be subject to requirements such as the use of Protected Species Observers, establishment and monitoring of marine mammal and sea turtle protection zones around Project activities, vessel strike avoidance procedures for protected species, and equipment operating procedures that reduce the risk of harmful noise exposure to marine life.

In addition to our protection activities and precedence, we also communicate with the community about our work as detailed within a Fisheries Communication Plan to avoid and minimize interactions with fishing vessels and gear (COP, Appendix II-R). The Atlantic Shores Fisheries Liaison Officer and Fishing Industry Representatives publish a weekly newsletter called the [Mariner Activities Update](#) detailing survey vessel operations and ensure we regularly receive real time fisheries industry stakeholder input and feedback to inform decision making. It should also be noted that in total, offshore wind survey vessels account for a fraction of 1% of total vessel traffic that occurs off the coast of New Jersey.

Atlantic Shores has compiled information received from this feedback and outreach to both commercial and recreational fisheries groups, as well as consultations with government agency representatives to guide the siting, design, construction, O&M and decommissioning of the Project to avoid or minimize potential impacts to the maximum extent practicable to both recreational and commercial fisheries operations and ensure co-existence. We are committed to finding ways to integrate fishermen into the Project by planning and executing economic opportunities. As part of these efforts, Atlantic Shores has developed a Gear Loss Avoidance Program to avoid losses at all phases of the Project. (COP, Sections 7.3 & 7.4) Recreational fisherman may benefit from the addition of hard structure from the WTGs, and the WTG rows are specifically aligned based upon fishermen's feedback and close coordination to align the flow of vessel traffic and fishing can occur within the WTA. AIS, ID and lighting will be used to mark all structures in consultation with the US Coast Guard, and all cables will be buried at a sufficient depth to avoid interaction with fishing gear.

Atlantic Shores will also establish a Marine Coordinator to monitor daily vessel movements, implementing communication protocols to avoid conflicts and monitor safety zones.

In addition, the Atlantic Shores Fisheries Monitoring Plan will provide a comprehensive means to document baseline conditions relevant to fisheries in the WTA and how to monitor those conditions throughout construction and operations. (See COP, Appendix II-K)

Atlantic Shores also collaborates with the Responsible Offshore Science Alliance (ROSA) www.rosascience.org and RWSE to advance research and monitoring on the potential effects of offshore wind on fisheries and other biological resources to support effective decision making.

COMMENT 21: Commenters provided comments and questions regarding turbine resiliency

1. Will turbine design withstand offshore hurricanes (Ray Zachmann, Arthur Gager)
2. Will turbines shed and contribute to microplastic in ocean (James Dilks)
3. Turbines are environmentally harmful, turbines do not benefit the environment, and are not safe (Roseanne Serowatka, Dora Grossman, Bette Rosa)

RESPONSE 21:

Atlantic Shores has worked to ensure that all components and systems proposed in the Project have sufficient strength to withstand operational and environmental loads (including hurricanes) and accidental events and have adequate durability against environmental conditions over the asset's life. The wind turbine generators and offshore substations will be designed according to site-specific conditions, including winter storms, hurricanes, and tropical storms, based on industry standards such as American Clean Power Association, International Electrotechnical Commission, American Petroleum Institute, and International Organization for Standardization standards. The engineering specifications of the wind turbine foundations and their ability to sufficiently withstand weather events will be verified by an independent certified verification agent as part of the Facility Design Report and Fabrication and Installation Report according to international standards, which include withstanding hurricane-level events. One of these standards calls for the structure to be able to withstand a 50-year return interval event. An additional standard includes withstanding 3-second gusts of a 500-year return interval event, which would correspond to Category 5 hurricane windspeeds.

During a high wind event, the Project wind turbines will automatically shut down when wind speeds exceed the manufacturers' certified maximum operational limit. Atlantic Shores will conduct a post-event inspection after an event that causes damage to a structure (e.g., a ship collision) or after a storm during which measured environmental conditions exceeded specified conditions (e.g., a hurricane or significant storm event).

There is no science based or peer reviewed academic journal that attributes wind turbine blade shedding as contributors to microplastics in the ocean.

The peer reviewed scientific research related to wind turbines does not support the idea that turbines are environmentally harmful, unsafe and not beneficial to the environment. While the construction of offshore Project components may result in various effects to the environment, the addition of structurally complex hard-bottom habitat from Project infrastructure can produce beneficial effects such as the "artificial reef effect". This can benefit structure-oriented marine species who are attracted to the structure offered by wind turbine foundations and the marine biota that colonize these structures; this has been observed at offshore wind farms in Europe and at the Block Island Wind Farm.

As detailed in the Project COP, Volume 1, Section 4.3.3 and 5.1, the WTGs and offshore substations will be monitored continuously via a SCADA system (with backup redundant systems) that provides remote control of all Project equipment and allows for emergency stopping, shutdown of equipment for maintenance, controls adjustments and auto restarting. Additional monitoring will include weather monitoring and forecasting, vessel and personnel tracking to ensure safety.

Public Interest - Environmental Justice

COMMENT 22: Several commenters expressed concerns that the project disproportionately impacts the minority community and raise environmental justice concerns (Keith Moore, Suzanne Moore, Mike Dean, Mary Smith, Andrew Sanford, Bonnie Haeberle).

1. Specifically, the comments related to the following executive orders, statutes and regulations:
 - a. E.O. 12898- Requirement to address environmental justice (EJ) during NEPA review;
 - b. NJ E.O. 23- NJ EJ;
 - c. Atlantic City Code Chapter 21A-Environment;
 - d. Right-to-Know;
 - e. Atlantic City Ordinance Chapter 21B- Environmental Commission;
 - f. Atlantic City Ordinance Chapter 7- Affirmative action
2. Will the proper procedures be followed through the entirety of the Project?
 - a. Employ a minimum of 10% minority contractors or suppliers (Suzanne Moore, Andrew Sanford)
 - b. Follow proper noticing regulations (Bonnie Haeberle)
3. The local government has the responsibility of ensuring that the community is protected, best interests put forward, and that minority members of society receive fair treatment (Frank Bechtel, Keith Moore, Suzanne Moore, Teresa Siletti)
4. Environmental Commission to promote protection, conservation, public knowledge/health

- questions, what commitments have been made to ensure minority population is guaranteed to protect their health and well-being, safety, jobs? (Suzanne Moore)
- 5. Atlantic City is thinking about public interest but has no control (Eileen Barker)

RESPONSE 22:

The City of Atlantic City has an active Green Team, that pursues issues that will enhance the City’s environmental stewardship and sustainability. The City is actively seeking to populate the recently adopted ordinance creating the Environmental Commission. Upon its activation, the Commission will operate under the parameters of the statute, expanding the scope and current efforts to address the impacts of climate change and resiliency.

Environmental justice (EJ) concerns are addressed within Atlantic Shores COP Volume II, Sections 7.0- 7.2 (Exhibit B) and the DEIS, Section 3.6.4 (Exhibit D) which describes in detail all measures to avoid, minimize and mitigate potential impacts resulting from construction, O&M and decommissioning activities.

The US EPA defines environmental justice as the fair treatment and meaningful involvement of all people with respect to development and implementation of environmental policies and projects, including the opportunity to participate in decision-making about activities that may affect their environment.

One of Atlantic Shores’ core values is to “be a good neighbor,” and as such, Atlantic Shores has been and continues to be transparent throughout the development process and works alongside the City of Atlantic City as a partner to ensure all concerns with the Project are fully addressed through substantial community engagement so that EJ communities and neighborhoods are not disproportionately impacted from the localized, temporary and short term construction activities and that these EJ communities also directly benefit from this Project.

Atlantic City, within Ordinance 21A, ensures that the Precautionary Principle Policy is utilized which requires thorough analysis of all alternatives based upon the best available science, and requires the selection of the best alternative through a public, open and transparent process such as is currently in progress with this diversion application. Atlantic City is looking forward to the time when the City’s power is generated from renewable sources.

Atlantic Shores is committed to managing construction and operation activities such that EJ communities will not bear disproportionately high or adverse impacts. EJ communities will receive both direct and indirect Project benefits and Atlantic Shores has taken specific steps to be inclusive in how the Project is developed, constructed, and maintained. Some indirect benefits of the Project from cleaner air and better health are outlined within Responses 18 and 23.

The Atlantic Shores Project engages in regular meetings with city officials, invests in local community organizations and institutions like the Atlantic City Boys and Girls Club, Atlantic City Arts Foundation, Atlantic City Community Fund, Atlantic Cape Community College, and several others. Atlantic Shores has committed to investing \$10 million directly in the City of Atlantic City in addition to committed initiatives in the OREC award.

Atlantic Shores cares deeply about the environmental impact and benefits of the project particularly on underrepresented and overburdened communities as identified by NJDEP. While Atlantic Shores works diligently with municipal staff and officials to mitigate impacts of our onshore route on all communities, it also recognizes its responsibilities to support and collaborate with local officials who understand their residents and community needs the best.

Atlantic Shores is committed to recruiting, training, and hiring a diverse workforce that will enable the needs of New Jersey's offshore wind workforce to be met by communities local to the Project. The majority of potential impacts to EJ communities are expected to be in the form of positive benefits, including jobs and economic stimulus.

Additionally, Atlantic Shores recognizes the opportunity to directly benefit EJ communities through thoughtful and targeted development choices and has taken steps to be inclusive in how the Project is developed, constructed, and maintained. Negative effects will be minimized by continued consultation with stakeholders to identify potential issues, thoroughly investigating them, and devising strategies to avoid or minimize adverse effects.

Potential socioeconomic impacts, both positive and negative, from offshore wind energy projects predominantly result from construction activities, however, these effects are localized, temporary, and short-term. Beneficial effects spurred by the construction and O&M of the Project include job creation and economic stimulus to the Project region. A portion of these jobs and economic stimulus could occur within EJ communities throughout the Project region. The following provides a summary of proposed minimization and mitigation measures that Atlantic Shores will implement to maximize the positive economic benefits for EJ Communities within the Project Region:

- A workforce hiring program will be implemented and designed to benefit environmental justice communities.
- Project infrastructure, such as cables, will be installed to avoid disproportionate impacts to EJ communities.
- Atlantic Shores will support workforce initiatives that will have a strong focus on providing support to minority and low-income populations, women, veterans, and underserved communities and local chambers of commerce that support minority groups.
- A Traffic Management Plan will be developed for construction activities and traffic monitoring and safety will be conducted.
- Onshore construction will be scheduled to occur outside summer tourist season (Memorial Day through Labor Day) and in accordance with local noise ordinances.
- Atlantic Shores will update their website and coordinate with municipalities to inform members of the public of construction schedules.
- Local ports will be used to the maximum extent practicable.

COMMENT 23: How does climate change affect underprivileged urban people more than others? How will offshore wind help the underprivileged population? (Nancy Hollingsworth)

RESPONSE 23:

Climate change is a public health challenge. However, certain populations are more vulnerable to the impacts of climate change than others. As outlined in the EPA 2021 peer reviewed report: *Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts* [Social](#)

[Vulnerability Report | US EPA](#), (EPA. 2021. Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts. U.S. Environmental Protection Agency, EPA 430-R-21-003), there are socially vulnerable populations that may be exposed to the highest impact of climate change.

This report looked at six climate impacts: air quality and health, coastal flooding and property, coastal flooding and traffic, inland flooding and property, extreme temperature and health, and extreme temperature and labor. These impacts were examined on four socially vulnerable populations based on race and ethnicity, age, income, and educational attainment. Some of the key findings of this report are that at an increased temperature of 3.6 degrees Fahrenheit, Black and African Americans individuals are projected to be the highest impacted compared to non-Black and non-African American individuals and are “40% more likely to currently live in areas with the highest projected increases in extreme temperature related deaths,” and “34% more likely to currently live in areas with the highest projected increases in childhood asthma diagnoses.” Hispanic and Latino individuals are 43% more likely than non-Hispanic and non-Latino, at an increase of 3.6 degrees Fahrenheit, to be impacted. In fact, Hispanic and Latino individuals are “43% more likely than non-Hispanic and non-Latino individuals to currently live in areas with the highest projected labor hour losses in weather-exposed industries due to climate-driven increases in high-temperature days,” and “50% more likely to live in coastal areas with the highest projected increases in traffic delays from climate-driven changes in high-tide flooding.” Additionally, the report found that individuals identified as low income and with no high school diploma were “25% more likely than non-low income individuals and those with a high school diploma to currently live in areas with the highest projected losses of labor hours due to increases in high-temperature days,” based on that same temperature increase of 3.6 degrees Fahrenheit due to global warming.

It is also important to note that climate change impacts cities and urban areas differently than suburban areas due to phenomena such as urban heat island effect, which can exacerbate climate change impacts and risks in cities and urban areas. According to the most recent United States Census, the three most populous urban cities in New Jersey, when viewed by race and ethnicity, are majority non-white. In other words, while whites make up 70.7% of New Jersey’s population, they do not make up a majority of those who live in New Jersey’s urban areas. When viewed in this lens and in combination with EPA’s study on impacts of climate on vulnerable populations, one can see that there are populations of New Jersey residents that are in fact more impacted by climate change than others.

Addressing greenhouse gas emissions, which is one key driver of climate change, requires the reduction of burning of fossil fuels. The purpose of Atlantic Shores’ Project is to develop offshore wind energy generation facilities within the Lease Area to provide clean, renewable energy to the New Jersey grid, thus reducing the state’s reliance on fossil fuel-derived energy and which is a major producer of greenhouse gases. The Project will help both the U.S. and New Jersey achieve their renewable energy goals, diversify New Jersey’s electricity supply, increase electrical reliability, and reduce greenhouse gas emissions. The Project will also provide environmental, health, community, and economic benefits, such as the creation of substantial new employment opportunities within disadvantaged communities. See Responses 8, 15, & 22 for more details.

Public Interest – Economics and Financials

Comments in this section will pertain to job creation, benefits to Atlantic City, financial questions, and proposed compensation for the project.

COMMENT 24: Commenters provided statements and comments regarding private and public profit related to the project.

1. Offshore wind will bring \$4.7 billion into NJ economy (Caren Fitzpatrick)
2. Project will bring almost \$2 billion to NJ economy (Amy Greene)
3. Concerns of money moving internationally/ to foreign companies, profits to Shell and Orsted (Penny Campbell, Mike Dean, Jackie Delario, Arthur Gager)
4. Questioned if the project is financially solvent for Atlantic City (Brett Barbin)
5. Money (billions) into NJ economy (Caren Fitzpatrick, Amy Greene)
6. Atlantic City relies on this project for investments into the city. Only recent investors are marijuana companies (Frank Bechtel)

RESPONSE 24:

The purpose of the Project is to develop offshore wind energy generation facilities within BOEM Lease Area OCS-A 0499 to provide clean, renewable energy to the Northeastern U.S. by the mid-to-late 2020s. The Project will help both the U.S. and New Jersey achieve their renewable energy goals, diversify the State's electricity supply, increase electricity reliability, and reduce greenhouse gas emissions (GHGs). Atlantic Shores is a 50/50 joint venture between Shell New Energies US LLC and EDF-RE Offshore Development LLC. EDF Renewables has over 30 years of experience investing in and developing renewable energy assets in the United States, such as solar, wind and EV charging and storage, including solar projects in New Jersey and New York. Shell has over 100 years of oil and gas investments and operations in the US and began investment in wind energy in the US beginning in 2001. The Atlantic Shores team includes members of both the Shell and EDF companies who come with decades of experience investing in and developing onshore and offshore energy projects and we are committed to advancing this economically viable Project as detailed within the Offshore Wind Renewable Energy Certificate (OREC) awarded by the NJBPU on June 20, 2021, which requires a demonstration of financial integrity and sufficient capital to allow for completion of construction of the Project . See Exhibit D.

Atlantic Shores acknowledges the many supportive comments that recognize the direct positive investment and redevelopment benefits that construction and operation of the Project enables for Atlantic City and New Jersey. In terms of local economic investment, the Project will bring \$848 million in guaranteed local economic benefits and have an overall economic impact of \$1.9 billion for New Jersey. We will contribute more than \$160 million to Atlantic City's economy, with nearly \$30m funded already and \$130m expected over the next four years. These direct investments support the local supply chain as well as small and regional businesses that are helping to build the clean energy infrastructure that will enable Atlantic Shore's first project to power more than 700,000 homes in New Jersey. (See Response 27) Direct economic contributions include local job creation, operations based on local supply chains, workforce development, consistent government revenue, and a means to foster long-term collaborative environmental education and research.

Beyond its environmental and public health benefits, the Project will provide several benefits to the Northeast's economy and communities (particularly within New Jersey) including:

Use of local supply chains. Atlantic Shores has prioritized using local suppliers for a significant amount of development activities, including survey activities, technical analysis, environmental and economic analysis, and legal services. As the development of the Projects progresses, Atlantic Shores will continue to expand its list of local suppliers. Atlantic Shores has proposals from major suppliers for local manufacturing that would bring hundreds of jobs to New Jersey and, more broadly, the Northeastern U.S.

Atlantic Shores is also seeking ways to maximize the use of organized union labor and employers wherever feasible. To demonstrate that commitment, Atlantic Shores has signed a first-of-its-kind memorandum of understanding (MOU) with six local unions (UBCJA [Carpenters, Divers, Dock builders and Piledrivers], LIUNA [Laborers], IBEW [Electricians], IUOE [Operating Engineers], Ironworkers, and Union Millwrights) to help train and employ a productive, safe, skilled, local workforce.

Revenues, taxes, and fees. The Project will increase revenues collected by federal, state, and local governments via personal income taxes, payroll taxes, sales taxes, property taxes, corporate taxes, and other fees (e.g., permit application fees) paid by Atlantic Shores, its contractors, and their employees. Economic activity resulting from the Project will generate additional revenue throughout the Northeast. Atlantic Shores will also make substantial annual rent payments and operating fee payments to the federal government in accordance with its Lease Agreement.

Facilitation of future offshore wind and other green developments. The Project is anticipated to contribute to the establishment of facilities and development of ports, that will be instrumental in attracting and supplying future U.S. offshore wind developments, and positioning talent, expertise, and research and development (R&D) activities within the Northeastern U.S.

Fostering innovation, research, and university outreach. As part of its project development efforts, Atlantic Shores has established robust working relationships with several research organizations and universities, such as Rutgers University and Stockton University, to foster innovative and environmentally responsible approaches to offshore wind development. Atlantic Shores has committed to New Jersey and the BPU that we will support numerous research and innovation initiatives, including development of a pioneering green hydrogen pilot project and funding for clean energy start-ups within the Minority & Women Owned Business Incubator at the Rutgers EcoComplex located in Bordentown, New Jersey. Additional or alternative programs may be developed as part of other procurement processes.

COMMENT 25: Commenters provided statements and comments regarding tax and utility costs.

1. Comments concerned with significant electric bill increase (Kathy Lovullo, Lee Darby, Jackie Delario, Lee Evans, Mike Dean, Bette Rosa)
2. Concern that a high electric bill impacts low-income communities the most (Mike Dean)
3. Questioned whether additional taxes/tax credits expected to be required to complete the project (Brett Barbin)

RESPONSE 25:

Regarding the cost of energy, [the monthly ratepayer bill impact of Atlantic Shores Project 1 is](#)

[estimated to cost \\$2.21 for residential customers, \\$20.81 for commercial customers and \\$172.25 for industrial customers.](#) These bill impacts will not begin until the project is operational. Mindful of low-and-moderate income consumers and energy price sensitive households, Atlantic Shores is committed to realizing the full potential of clean energy benefits. At scale, offshore wind will be safe, reliable, affordable renewable energy resource.

The Project design and cost estimates are reliably informed by 5 years of pre-development and engineering activities, including onshore and offshore conceptual design and feasibility studies, geophysical, geotechnical, and environmental surveys, and numerous stakeholder engagements. Our project's business case is further enhanced by strong connections with key local suppliers and our deep understanding of U.S. tax and tax credit economics. We also leverage the most recent available inputs from the U.S. offshore wind market, Internal Revenue Service guidance and our diverse network of experts.

COMMENT 26: Commenters provided questions and statements regarding job creation and employment opportunities.

1. Duration of available employment (Louise Rosanio)
2. Number of positions insignificant, lack of jobs offered, concern with only 88 maintenance jobs over 200 years (Mike Dean, Mary Smith, Louise Rosanio)
3. Employment opportunities are available for international employees rather than residents (Arthur Gager)
4. Previous wind farm yielded over 10,000 employment opportunities (Karen Fitzpatrick)
5. Comment to work together to ensure employees hired will experience a work readiness program (Ronald Tuff)

RESPONSE 26:

Employment opportunities exist now during the development phase and will continue through the life of the project. During the development and construction period, direct jobs will primarily be in construction, manufacturing, professional services (e.g., engineering and general management), transport, and warehousing. During operations and maintenance (O&M) and decommissioning, direct jobs will include jobs in operations and maintenance (e.g., wind turbine generator technicians) as well as professional services.

We estimate that the Project will create 3,100 full-time and or part-time jobs across the development, construction and operational phases of the Project, and this yields 40,700 FTE job years throughout the 20-year OREC term as some jobs will be short term while others last many years over the anticipated lifetime of the offshore wind energy operation. See Exhibit D.

Atlantic Shores intends to procure local suppliers and use local manufacturing facilities to the maximum extent practicable. Atlantic Shores anticipates that hiring local suppliers and manufacturing facilities will provide continued support of existing jobs and potentially create thousands of additional jobs in New Jersey and, more broadly, the Northeastern U.S. Indirect jobs created by the Projects will primarily be in management services, wholesale trade, and transportation, but may also include real estate, finance, insurance, and several other regional industries that will benefit from increased economic activities. The Project may also support other sectors, such as health care and social assistance, retail trade, and accommodation and food

services.

Atlantic Shores has prioritized using local suppliers for a significant amount of development activities, including survey activities, technical analysis, environmental and economic analysis, and legal services. As the development of the Project progresses, Atlantic Shores will continue to expand its list of local suppliers. Atlantic Shores also has proposals from major suppliers for local manufacturing that would bring hundreds of jobs to New Jersey and, more broadly, the Northeastern U.S.

Atlantic Shores is also seeking ways to maximize the use of organized union labor and employers wherever feasible. To demonstrate that commitment, Atlantic Shores has signed a first-of-its-kind memorandum of understanding (MOU) with six local unions (UBCJA [Carpenters, Divers, Dock builders and Piledrivers], LIUNA [Laborers], IBEW [Electricians], IUOE [Operating Engineers], Ironworkers, and Union Millwrights) to help train and employ a productive, safe, skilled, local workforce.

Atlantic Shores is proposing to establish a new O&M facility in Atlantic City to host its O&M personnel, dock vessels, and store equipment, tools, spare parts, and consumables. The O&M facility will host nearly 90 long-term jobs in technical services, project planning, data analysis, wind farm preventative maintenance and repair, cable and foundation monitoring, and substation maintenance to start, and depending on future offtake agreements, there will be opportunities to scale and expand our workforce in Atlantic City. The O&M facility will also create economic activity for a wide range of subcontractors including shipyards, spare part producers, and vessel and harbor services.

The Project is anticipated to contribute to the establishment of facilities and development of ports that would be instrumental in attracting and supplying future U.S. offshore wind developments, and positioning talent, expertise, and research and development (R&D) activities within the Northeastern U.S. thus generating additional job opportunities.

Atlantic Shores will support numerous New Jersey and local workforce initiatives. These initiatives and work readiness programs will have a strong focus on providing support to minorities, women, veterans, and underserved communities. Atlantic Shores has developed MOUs with organizations (e.g., Boys & Girls Club of Atlantic City, Helmets2Hardhats) to provide opportunities for employment, education, and training to women, minorities, and veterans as the Project is developed. Atlantic Shores will continue pursuing contracts with women- and minority-owned New Jersey businesses. To build awareness of opportunities in offshore wind, Atlantic Shores is a member of several chambers of commerce supporting minority groups, including the African American Chamber of Commerce, the Statewide Hispanic Chamber of Commerce, and the Chapter of Professional Women in Construction.

Workforce development initiatives include workforce training with several manufacturers and suppliers. Atlantic Shores has also committed \$160,000.00 to serve as the lead sponsor for all NJ WIND Institute events, as well as \$10 million for workforce training and innovation activities of the NJ WIND Institute.

COMMENT 27: Commenters inquire about general costs and investments.

1. Previous project yielded financial/economical gain from turbines' success (Karen Fitzpatrick)
2. What will compensation to residents look like (Trevor Doyle)
3. Compensation to Atlantic City is vague, ensure a minimum amount of investment (Ted Kazantzis, Heidi Yeh, Trevor Doyle)
4. Atlantic City needs redevelopment and investments (Frank Becketl)
5. Utilize money for development of uses benefitting residents (James Dilk)

RESPONSE 27:

In terms of community investments, Atlantic Shores has contributed more than \$250,000 in grants to local nonprofits and community-based organizations, and we will continue to grow our portfolio of strategic partners in Atlantic City and the region.

Atlantic Shores support for the Boys & Girls Club of Atlantic City and sponsorship of signature events like the 48 Blocks Arts Festival, the Atlantic City Latino Festival, and Atlantic-Cape's Restaurant Gala represent our commitment to Atlantic City as good neighbors.

In 2020, Atlantic Shores opened its ECO Center in partnership with Stockton University on the boardwalk in Atlantic City, New Jersey. The ECO Center serves as an educational hub and is the primary location for community informational events, including educational visits from local school groups, and acts as a resource center for university students. The ECO Center constitutes a major local investment. Atlantic Shores has also hosted the South Jersey Energy Industry Partnership's 2nd Annual Careers in Energy Expo at our ECO Center. At this event, local high school students were invited to ask questions and learn more about clean energy career pathways, skills, credentials, and industry job training programs. In July 2023, we partnered with Rutgers Future Scholars to bring OffshoreWind4Kids education program back to Atlantic City at the ECO Center.

Atlantic Shores has purchased and will redevelop property for the establishment of an O&M facility in the Atlantic City Harbor. This property has sat abandoned and derelict since the early 1990's. The O&M facility will host its O&M personnel, dock vessels, and store equipment, tools, and spare parts. The O&M facility will host long-term jobs in technical services, project planning, data analysis, wind farm preventative maintenance and repair, cable and foundation monitoring, and substation maintenance. The O&M facility will also create economic activity for a wide range of subcontractors including shipyards, spare part producers, and vessel and harbor services.

Pursuant to N.J.A.C. 7:36-26.10, Green Acres diversion compensation is required by either replacement land, monetary compensation or other compensation. Atlantic Shores intends to propose monetary compensation, which may be used by Atlantic City for parkland improvements or open space acquisition, at a ratio of 10:1 as set forth in N.J.A.C. 7:36-26.10(i)2. This proposed compensation will be reviewed by the NJDEP and the State House Commission during the diversion application process.

We will continue to work to ensure that the economic and environmental benefits of our projects improve the quality of life and serve all residents of Atlantic City for generations to come.

Public Interest – General / Other

COMMENT 28: Commenters expressed concerns pertaining to general project viability.

1. Assurances that Shell and EDF cannot request rebids of contracts must be mandated (Ted Kazantzis)
2. How would governmental changes impact the progress of this Project (Ray Zachmann)

RESPONSE 28:

Atlantic Shores is committed to progressing this Project and cannot opine about any future unknown changes in government or contracts. (#1, #2)

COMMENT 29: Commenters provided comments and questions regarding property value, insurance, and liability related to potential project impacts.

1. How will tourism and property value recover from turbine installation and presence (Marybeth Feeney, Phil and Jenn Field)
2. Fear that flood insurance will rise after Project installation (Carolyn Rush)
3. Will there be funds accessible to handle any insurance claims submitted as a result of damage from Project (Brett Barbin)
4. Who will insurance carriers and contractors be (Brett Barbin)
5. Will homeowners be easily able to file any claims pending property damage (Brett Barbin)
6. Proposed diversion leads to decreased property value (George Ingram)
7. Commenter asked if their property would be needed for the project (Anthony Miranda)

RESPONSE 29:

With respect to tourism, studies show offshore wind development has not had a significant impact on tourism in Europe, where it has been in operation since the early 1990s. In fact, Block Island off the coast of Rhode Island, the first community in the United States to host an offshore wind farm, has seen an increase in tourism since being built, and no impact on property values. A similar study in Denmark found no significant impact on property values from offshore wind turbines located 5 miles offshore.

Offshore wind projects have proven to be attractive for sightseeing tours and represent a significant opportunity in the hospitality industry driven by ecotourism, building on the success of Atlantic City's existing engines of commerce while thoughtfully expanding, enhancing, and diversifying the region's economy.

There is no correlation between the Project and an increase in flood insurance as all cables will be buried underground.

The Project will be covered by an appropriate bond or other approved security, as required by 30 CFR 585.515 and 30 CFR 585.516. The Project has been designed to avoid or minimize impacts to adjacent property owners, however, should property owners have any property damage concerns, they should alert Atlantic Shores immediately, so all concerns may be promptly addressed.

The current surface use of all Green Acres parcels will remain the same following construction, therefore no decrease in value is anticipated. In addition, Atlantic Shores has proposed providing

compensation of 10:1 for the permanent subsurface easements.

The Project route has been established and no additional properties are anticipated to be needed at this time.

COMMENT 30: Commenters expressed general concern and opposition to the project (Jay Sampson, Christine Clarke, Patty Deroo, Beverly Marinelli, Andrew Sanford, Arthur Gager, Louise Rosanio, Regina Littwin)

RESPONSE 30:

Atlantic Shores acknowledges all comments.

The range of topics and detailed information provided by Atlantic Shores in this document is responsive to specific questions or comments received, but also comprehensive and intended for those who attended the hearing, registered their name, but did not provide a comment or question.

APPENDIX A

The following persons provided oral testimony at the July 27, 2023 scoping hearing:

Karen Fitzpatrick

Carolyn Rush

James Thompson, Campaign Director for NJ League of Conservation Voters

Heidi Yeh, Policy Director for the Pinelands Preservation Alliance

Andrew Sanford

Keith Moore

Ronald Tuff, Reverend, GreenFaith Incorporated and Vice President of New Jersey Black Issues

Convention

Suzanne Moore

Judy Tyson

Jim Akers

Ted Kazantzis

Monica Malone

Eileen Barker

Arthur Gager

Frank Bechtel

James Dilks

Mike Dean

Sheri Lilienfeld

Dora Grossman

George Ingram

Christine Clarke

Jackie Delario

Lee Darby

Bette Rosa

Tim Wilkins

Nancy Hollingsworth

Louise Rosanio
Brett Barbin
James Mangin
Val Demaio
Leslie Mangold
Kathy Lovullo
Lee Evans
Patty Deroo
Ray Zachmann
Trevor Doyle
Kathleen Harper
Jay Sampson
Beverly Marinelli

The following persons provided written comments within the public comment period:

Anthony Miranda
Marybeth Feeney
Penny Campbell
Sean Hanlon
Jennifer Guarino
Bonnie Haeberle
Robert Moss
Mary Smith
Regina Littwin
Richard Gannon, Esq.
Roseanne Serowatka
Amy Greene
Brett Barbin
Apostolos Gerasoulis
Teresa Silletti
Phil and Jenn Field, Protect Our Coast NJ