



Section 10: Environmental Protection Plan and Emissions Impacts

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Attentive Energy Two Environmental Protection Plan

Attentive Energy LLC

12 E. 49th Street, 11th Floor, New York, NY 10017

Lease Area OCS-A 0538

August 4, 2023



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ACRONYMS AND ABBREVIATIONS

Acronym/abbreviation	Definition
AC	alternating current
████	████████████████████
██	████████████████████
Attentive Energy	Attentive Energy LLC
████	████████████████████
██	████████████████████
Bight	New York Bight
BOEM	Bureau of Ocean Energy Management
BPU	New Jersey Board of Public Utilities
CO _{2e}	carbon dioxide equivalent
COP	Construction and Operations Plan
DC	direct current
DOE	U.S. Department of Energy
ECR	export cable route
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EMF	electromagnetic field
EO	Executive Order
EPP	Environmental Protection Plan
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FLiDAR	floating light detection and ranging
FPP	Fisheries Protection Plan
G&G	geophysical and geotechnical
GHG	greenhouse gas
GPS	global positioning system
HDD	horizontal directional drilling
HVDC	high-voltage direct current
IAC	inter-array cable
LCA	Lifecycle Assessment

Acronym/abbreviation	Definition
Lease Area	Lease Area OCS-A-0538
MW	megawatt
NARW	North Atlantic right whale
[REDACTED]	[REDACTED]
N.J.A.C.	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
NJEDA	New Jersey Economic Development Authority
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOWRDC	National Offshore Wind Research and Development Consortium
[REDACTED]	[REDACTED]
O&M	operation and maintenance
OBC	overburdened community
OCS	Outer Continental Shelf
OREC	Offshore Wind Renewable Energy Certificate
OSRP	Oil Spill Response Plan
OSS	Offshore Substation
OTN	Offshore Transmission Network
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
PDC	Project Design Criteria
PEIS	Programmatic Environmental Impact Statement
PM	particulate matter
Project	Attentive Energy Two Project
Project Area	Portion of the Lease Area plus export cable route and onshore area dedicated to the Project
[REDACTED]	[REDACTED]
PSO	protected species observer
PV	Plan View

Acronym/abbreviation	Definition
█	████████████████████████████████████████
█	████████████████████████████████████████
RODA	Responsible Offshore Development Alliance
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ROW	right-of-way
RPS	Renewable Portfolio Standard
█	████████████████████████████████████████
█	████████████████████████████████████████
SAV	submerged aquatic vegetation
SGD	Solicitation Guidance Document
█	████████████████████████████████████████
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
WTG	wind turbine generator

1 INTRODUCTION

Attentive Energy understands the immense importance of New Jersey’s biologically diverse environment onshore, near shore, and offshore. As such, Attentive Energy LLC’s (“Attentive Energy”) Environmental Protection Plan (“EPP”) aims to balance the interests of responsible offshore wind energy development with the biological resources existing in the Lease Area OCS-A 0538 (“Lease Area”), offshore export cable route (“ECR”), and onshore area dedicated to the Project (the combined onshore and offshore area where the Attentive Energy Two facilities are physically located is collectively the “Project Area”).

[Redacted text block]

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[Redacted text block]

Attentive Energy’s EPP will be an adaptive document that addresses impacts to natural resources overlapping with the Project Area. The environmental protection measures span all phases and components of the Project, including onshore and offshore activities, pre-construction surveys, construction, operation, and decommissioning. Attentive Energy’s environmental protection measures have been developed based on information from state and federal agencies and other stakeholders, including the New Jersey Department of Environmental Protection (“NJDEP”), the Regional Wildlife Science Collaborative (“RWSC”), the Bureau of Ocean Energy Management (“BOEM”), National Oceanic and Atmospheric

Administration (“NOAA”) National Marine Fisheries Service (“NMFS”), the U.S. Fish and Wildlife Service (“USFWS”), and more to identify, avoid, minimize, and mitigate impacts.

[REDACTED]

Attentive Energy has developed a robust baseline characterization of resources, habitats, communities, and species in the Project Area using existing data sources and pre- and post-construction monitoring. Attentive Energy will incorporate knowledge gained from monitoring and stakeholder input to inform the activities of future Project phases, mitigation measures, and decommissioning plans. Attentive Energy notes there have been significant efforts in the Bight area to collect relevant information, and this data is informing the design of future research and monitoring. Data gaps will be identified and addressed as necessary through additional targeted monitoring and surveys. Attentive Energy is actively ensuring that surveys and sampling efforts are conducted with scientific rigor, and that impact mitigation and avoidance measures are evidence based and aligned with the current state of the science.

[REDACTED]

[REDACTED] In the following subsections, Attentive Energy’s research framework, including research initiatives, strategy, collaborators, and data collection processes, is described in more detail.

2 ANTICIPATED BENEFITS

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

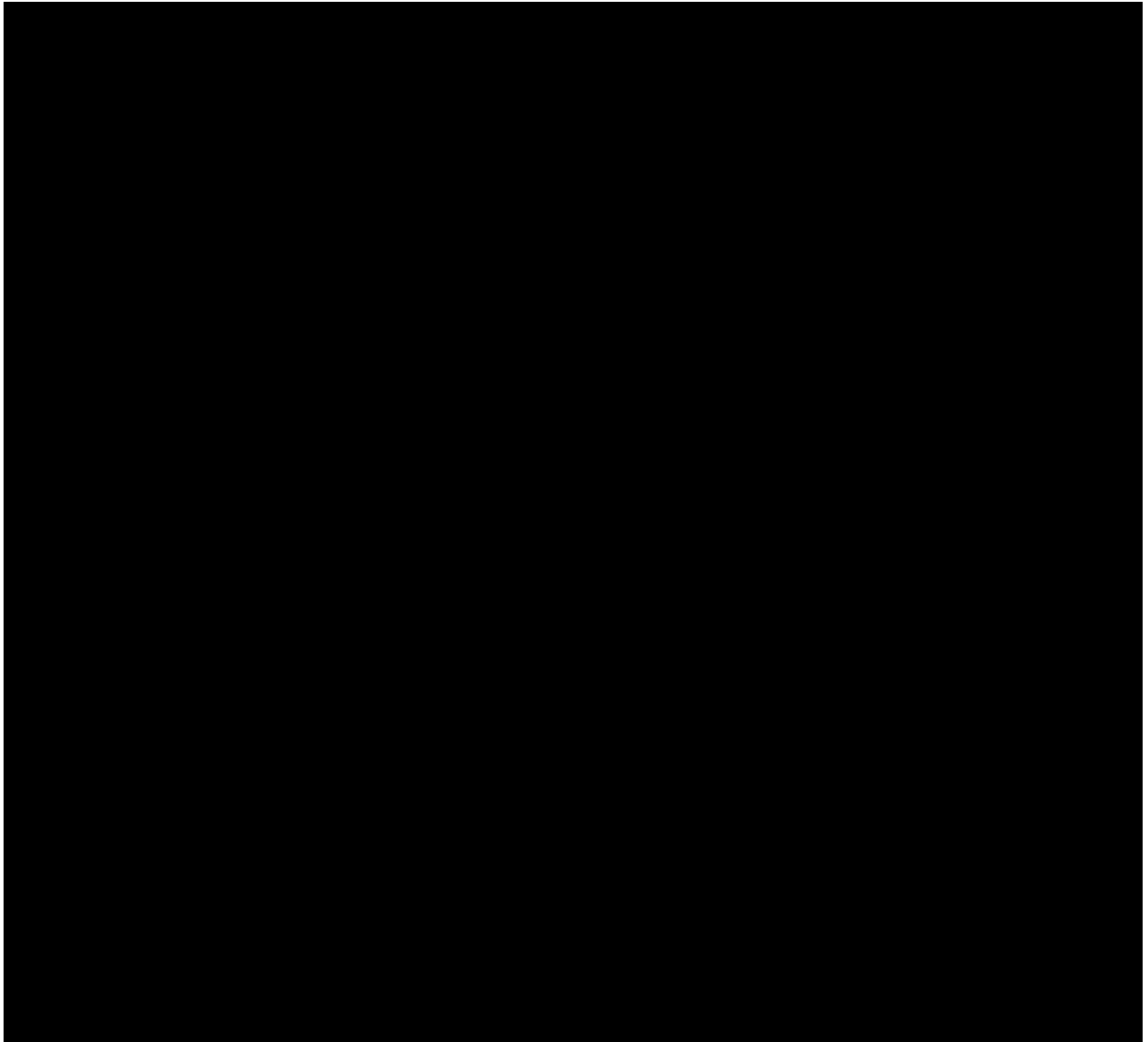
[REDACTED]

To date, Attentive Energy has engaged with researchers from several universities to discuss areas of expertise and interests related to its monitoring and research goals. Conversations are ongoing, and the list of institutions will likely be expanded to include other entities as concepts and discussions mature. Attentive Energy is committed to working with several private entities, including [REDACTED]

[REDACTED]. Details are provided in Section 6 of this EPP.

[REDACTED]

[REDACTED]



Quantification of anticipated environmental benefits



[Redacted text block]

[Redacted text block]

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[REDACTED]

Ecosystem services of land saved

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

3 BASELINE ENVIRONMENTAL CHARACTERIZATION

Understanding the environmental baseline is essential for understanding any potential effects of the Project. Attentive Energy has compiled a comprehensive baseline environmental characterization, included as Appendix A to this EPP. [REDACTED]

[REDACTED]

[REDACTED]

The Project Area is defined by the combined onshore and offshore area where the Attentive Energy Two facilities are physically located. The offshore components of the Project will consist of an offshore wind farm located in BOEM Lease Area OCS-A 0538, [REDACTED]

[REDACTED]

4 DATA MANAGEMENT AND SHARING

Attentive Energy understands the importance of a Data Management and Availability Plan to describe data standardization, transparency, sharing, and accessibility. Attentive Energy has already taken steps to support the standardization and collection of data related to offshore wind. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The Data Management and Availability Plan is provided as Attachment 10-B to this Application.

5 ENVIRONMENTAL IMPACTS AND MITIGATION

Following on the environmental baseline characterization (Appendix A), this section provides a scientifically rigorous description of all the potential environmental impacts from pre-construction to decommissioning, [REDACTED]

[REDACTED]

[Redacted]

Biological

Fish, fisheries, and benthic resources

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[REDACTED]

[REDACTED]

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Mitigation

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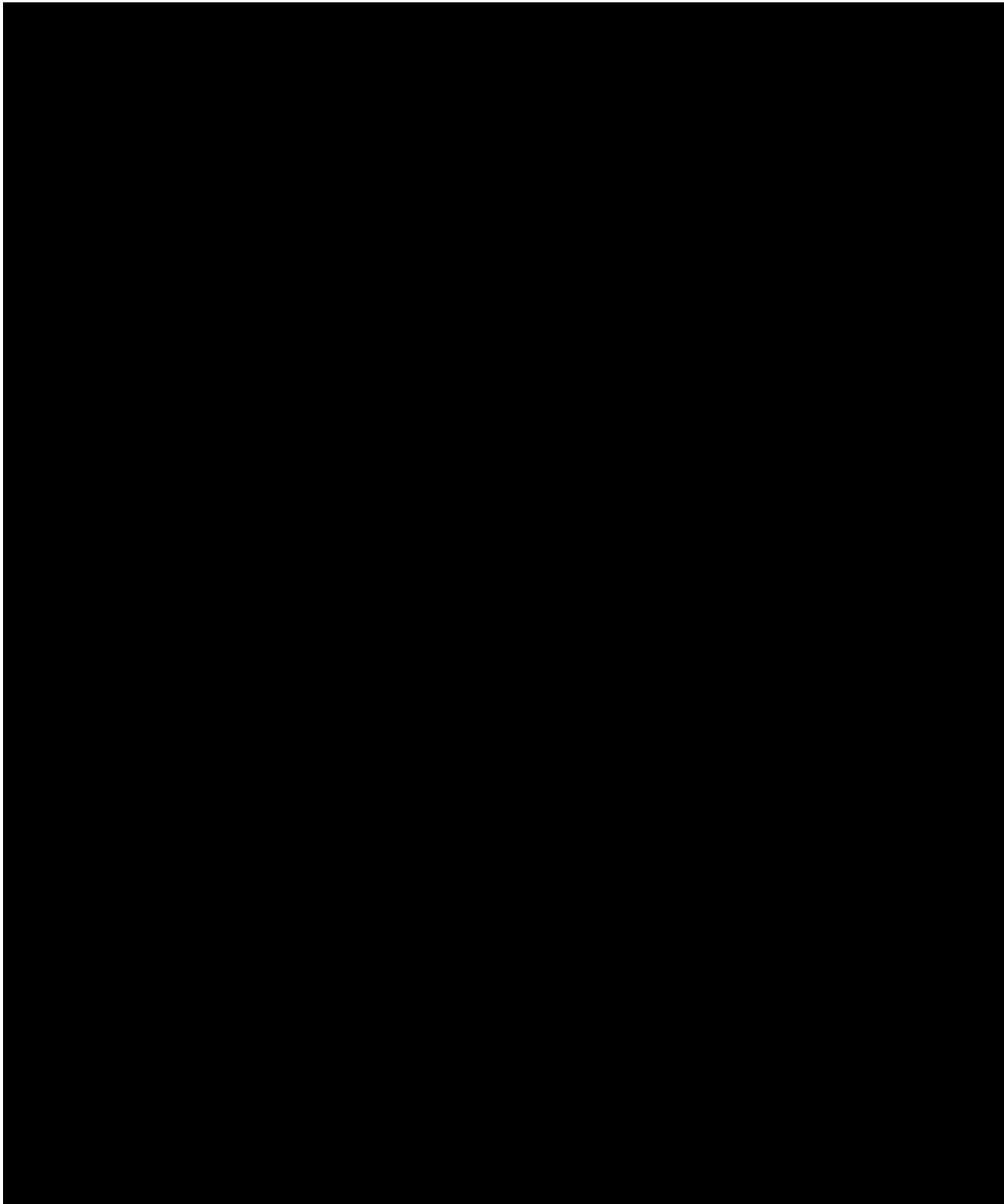
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Attentive Energy will mitigate Project impacts to fish, fisheries, and benthic species through a variety of measures, as presented in Table 10-A-2.

[Redacted text block]

Table 10-A-2. Impact-producing factors–fish, fisheries, and benthic species

[Redacted table content]



Marine mammals and sea turtles

Impact-producing factors



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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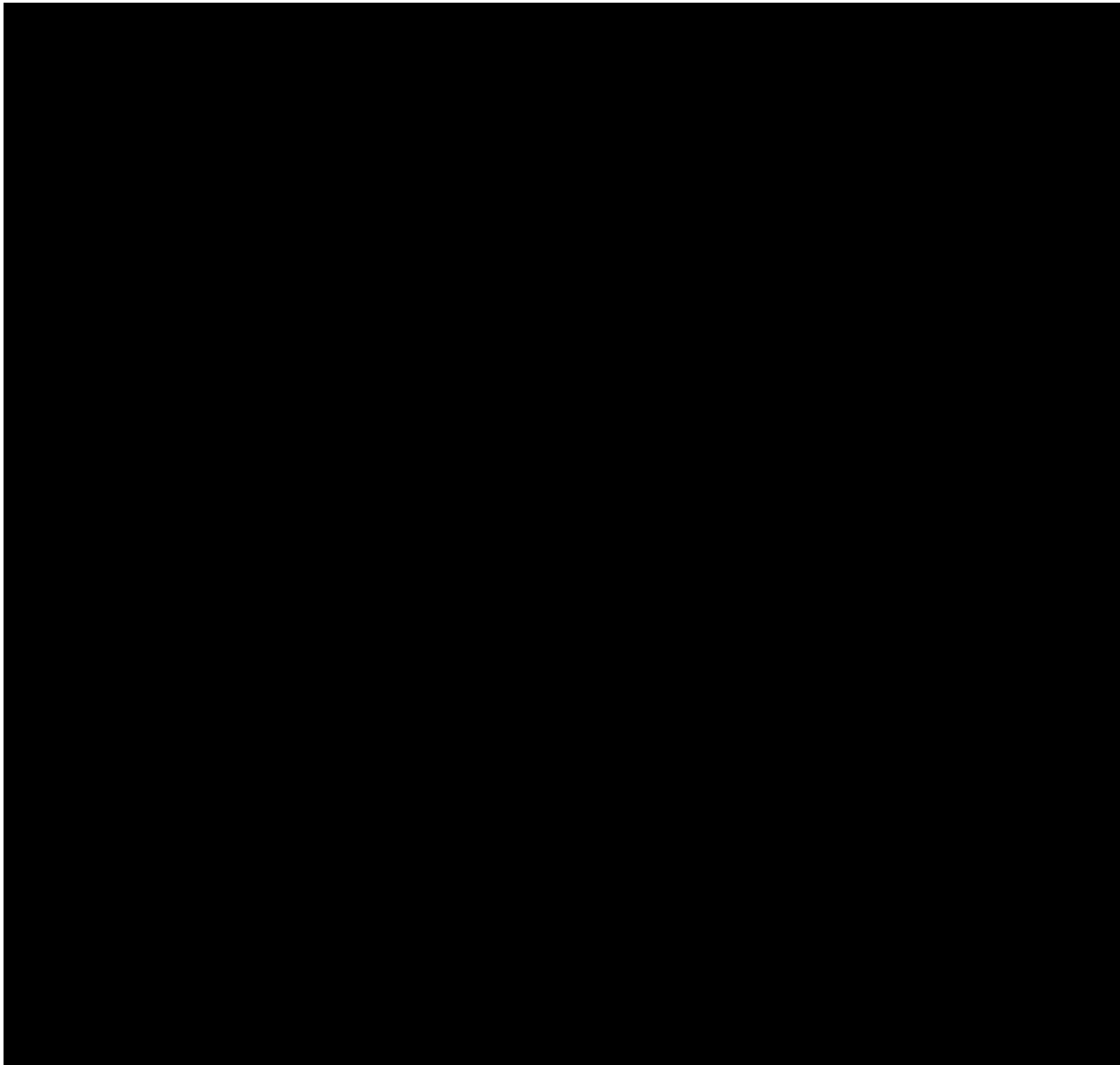
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Mitigation

Mitigation measures will be used during Project activities to minimize or avoid impacts on marine mammals and sea turtles, as presented in Table 10-A-3. If needed, Attentive Energy will work with appropriate regulatory agencies to modify and adapt mitigation strategies. As part of the Project’s Protected Species Mitigation and Monitoring Plan, alternate protocols (i.e., for work during nighttime or low-visibility) conditions will be developed and incorporated.

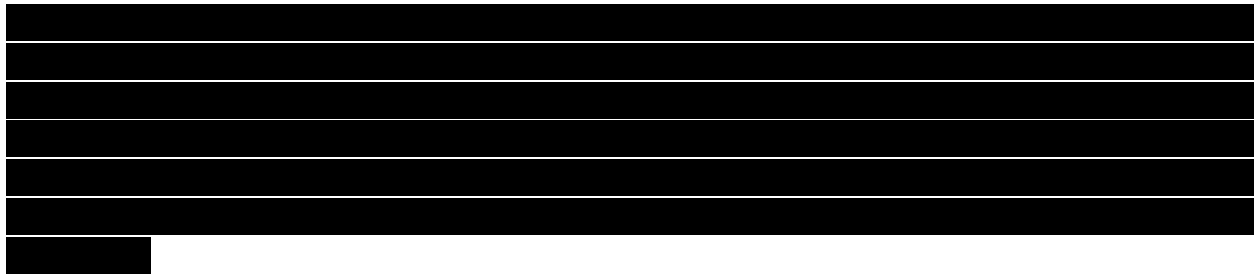
Table 10-A-3. Impact-producing factors–marine mammals and sea turtles

[Redacted table content]



Birds and bats

Impact-producing factors



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



Bat detector mounted on the Emma McCall

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Mitigation

[Redacted text block]

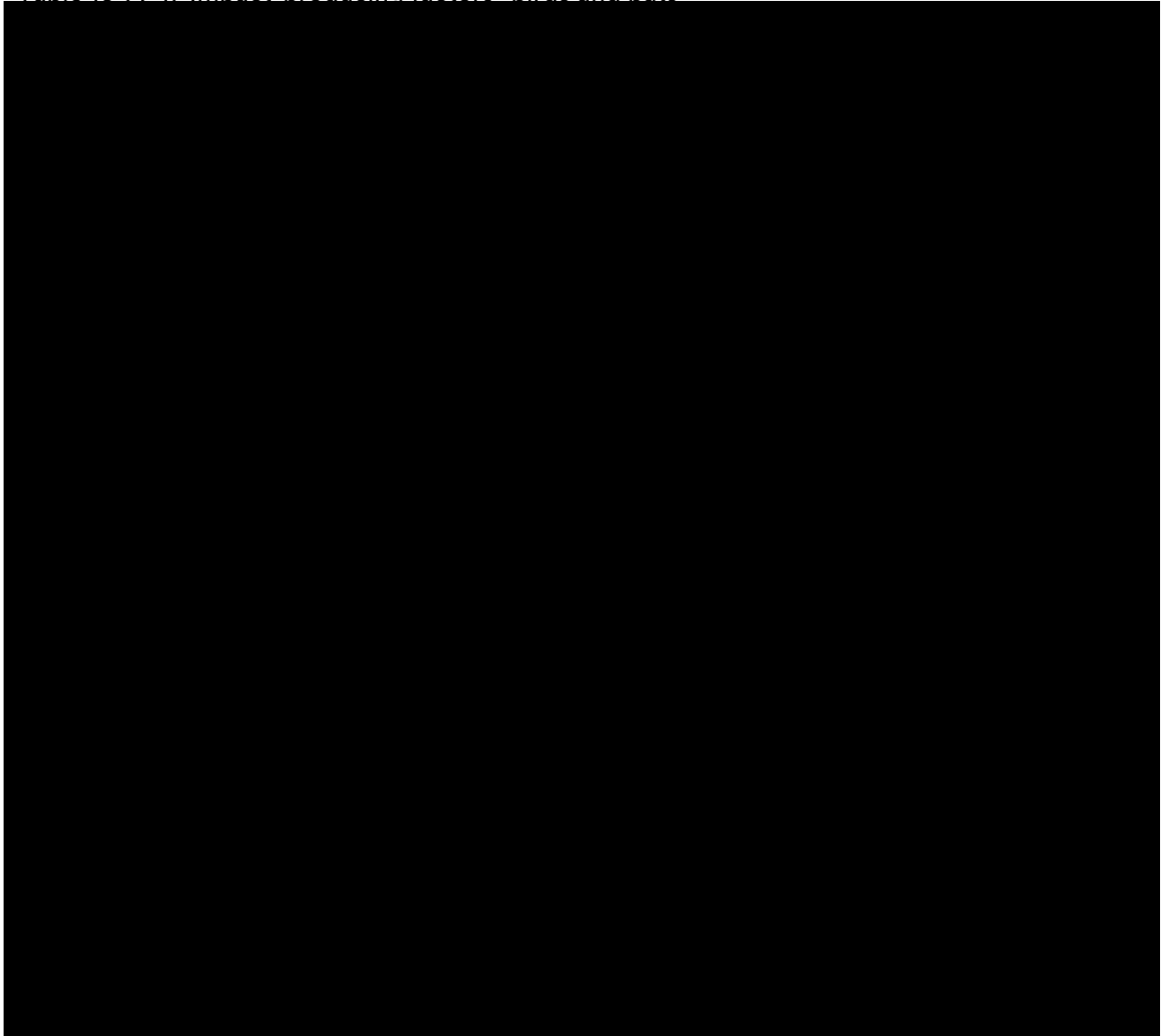
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Table 10-A-4. Impact-producing factors—birds and bats



Tidal wetlands, submerged aquatic vegetation, and freshwater environments

Impact-producing factors



[Redacted text block]

[Redacted text block]

[Redacted text block]

Mitigation

[Redacted text block]

Table 10-A-5. Impact-producing factors—tidal wetlands, submerged aquatic vegetation, and other freshwater environments

[Redacted table content]

Physical

Water quality

Impact-producing factors

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Mitigation

[Redacted]

[Redacted]

Table 10-A-6. Impact-producing factors–water quality

[Redacted Table Content]

Oil spill response plan and hazardous materials

Impact-producing factors

[Redacted Table Content]

[Redacted Table Content]

Mitigation

[Redacted Table Content]

Mitigation

Please see Appendix B of this EPP for full details on atmospheric emissions calculations and mitigation. [REDACTED]

Table 10-A-8. Impact-producing factors–air quality

[REDACTED]

Lighting controls

Impact-producing factors

[REDACTED]

[Redacted]

Mitigation

[Redacted]

[Redacted]

[Redacted]

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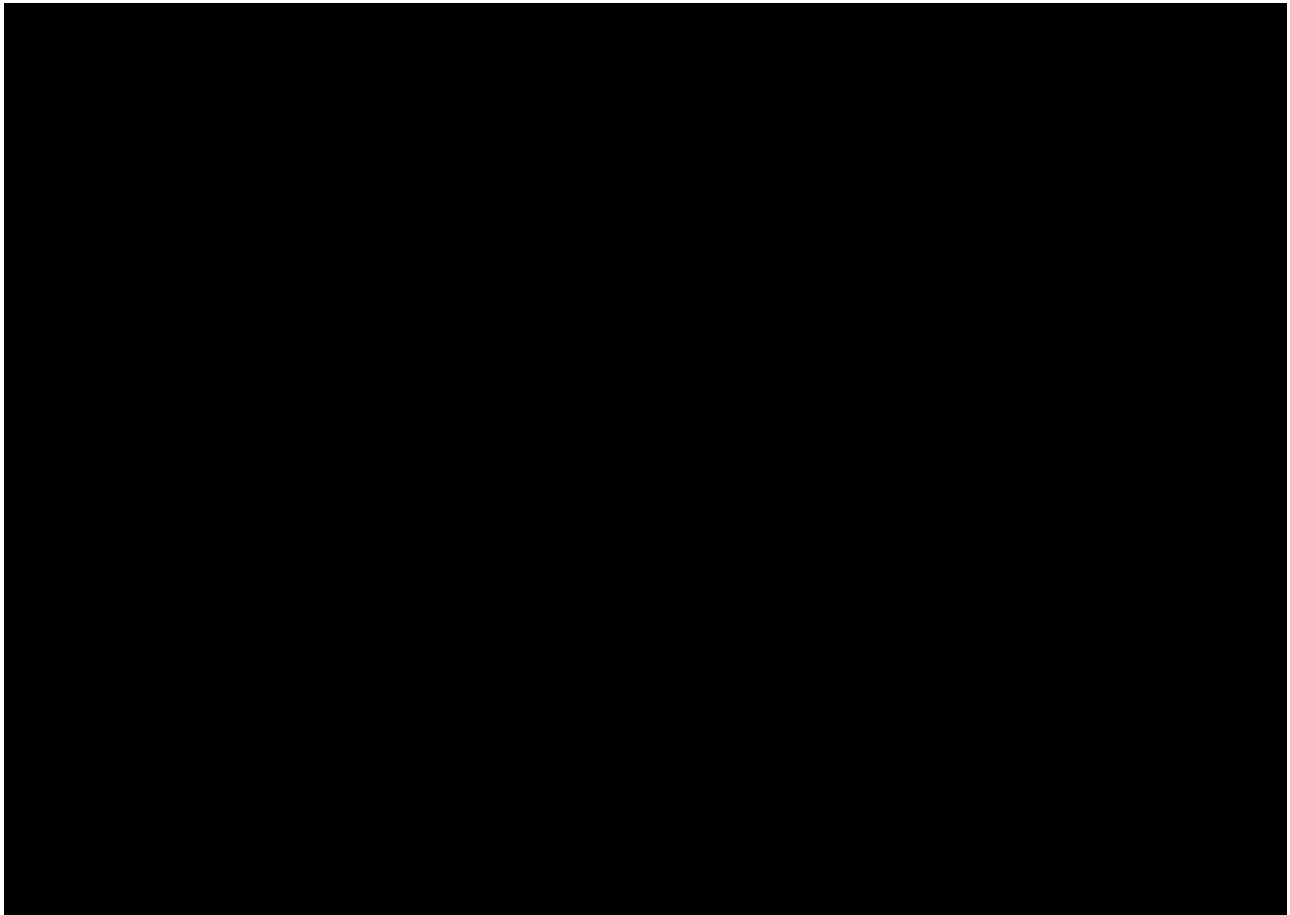


Figure 10-A-1.

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Table 10-A-9. Impact-producing factors—lighting

[Redacted]

In-air noise

Impact-producing factors

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i [REDACTED]

Visual

Impact-producing factors

[REDACTED]

Mitigation

[REDACTED]

Environmental justice

Impact-producing factors

[REDACTED]

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[Redacted]

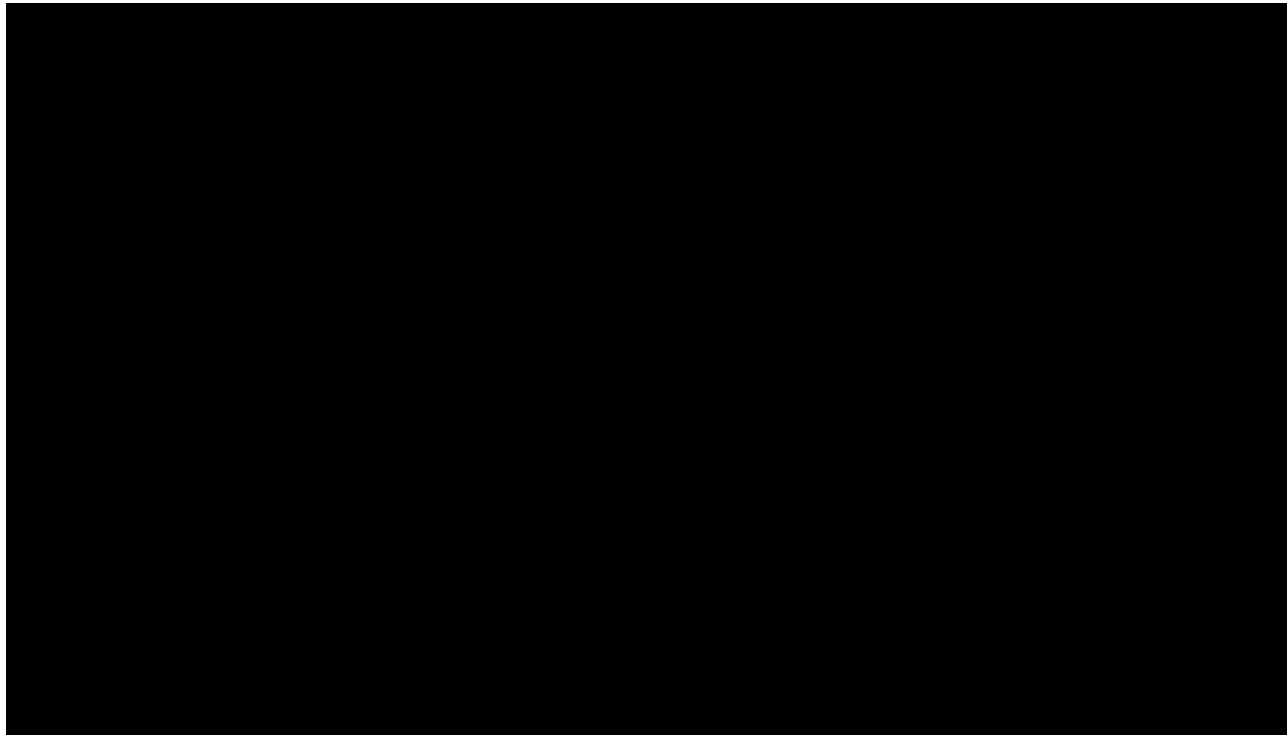
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Table 10-A-11. Impact-producing factors—environmental justice

[Redacted Table Content]



Land use and landscape

Impact-producing factors



Mitigation

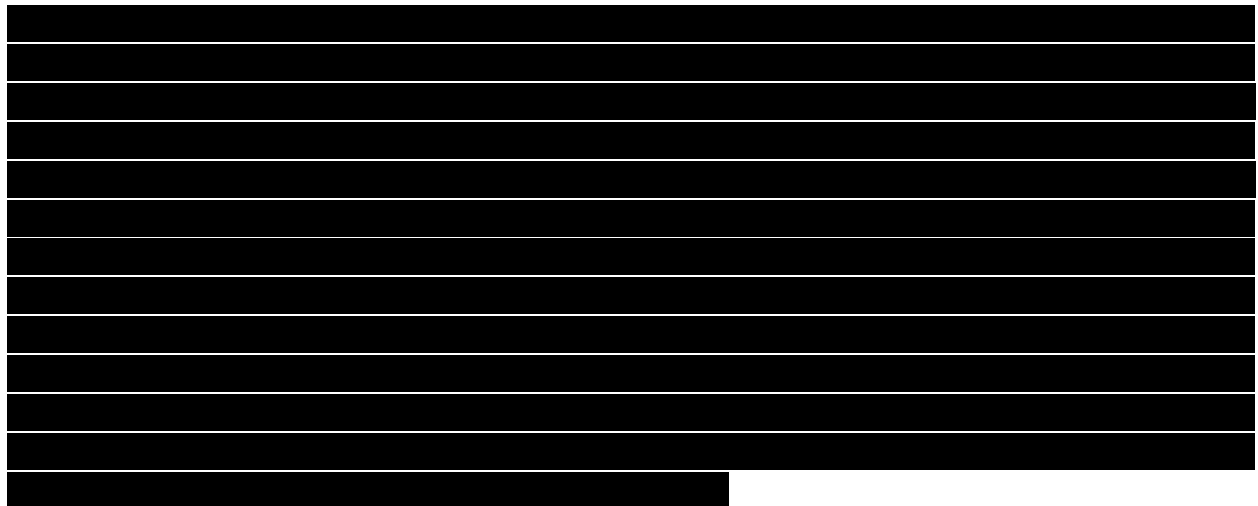
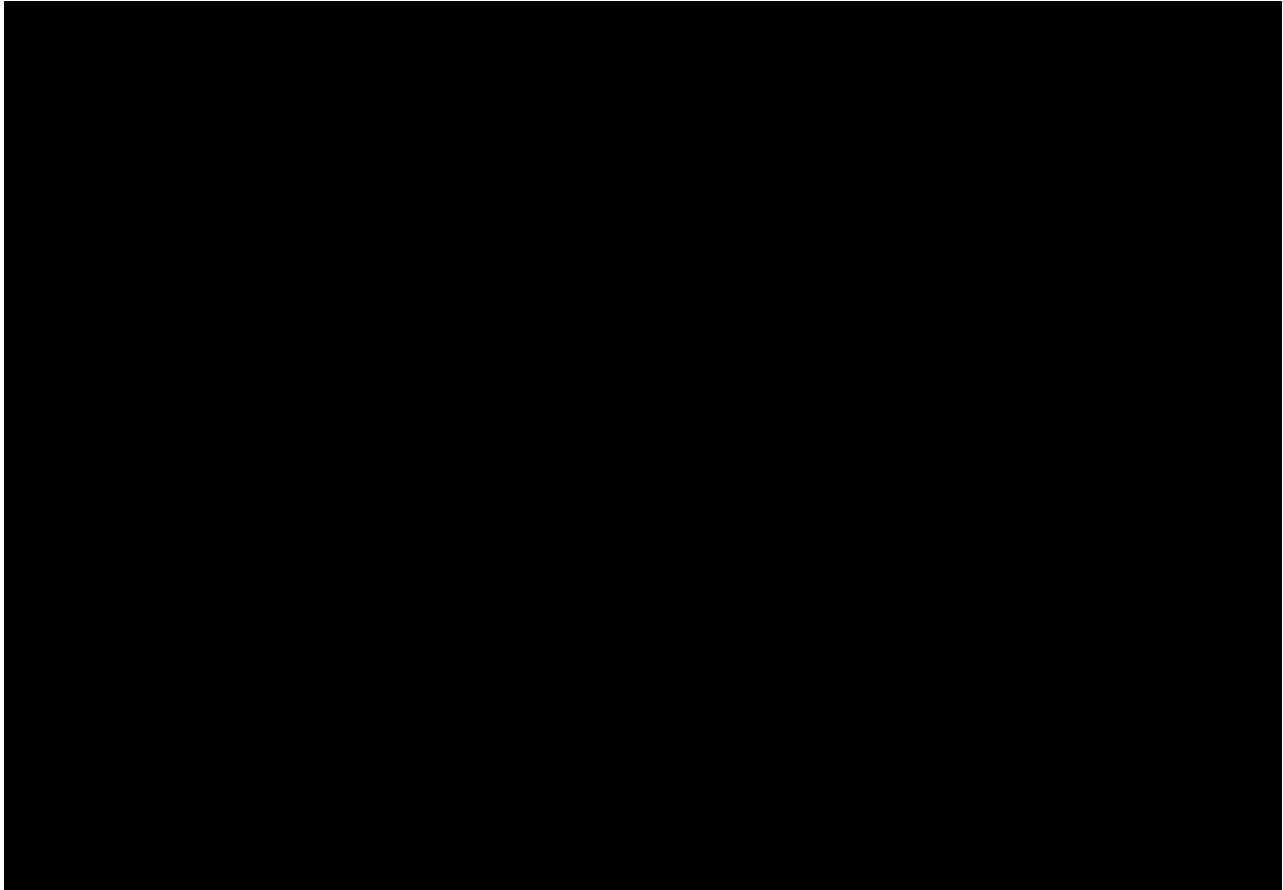


Table 10-A-13. Summary of Attentive Energy's Fisheries and Environmental Monitoring and Research Program



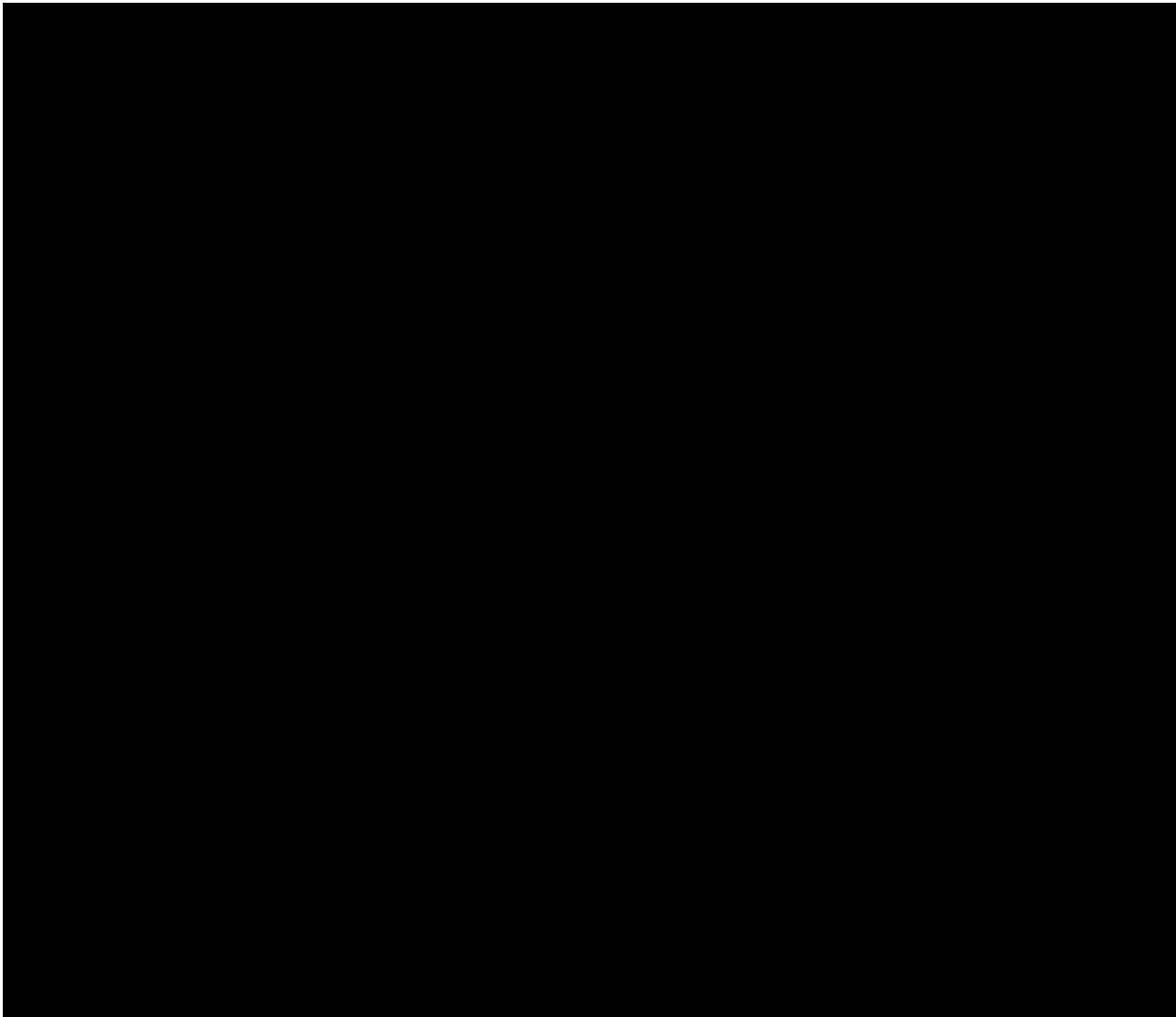


Figure 10-A-2.

New Jersey's Research and Monitoring Initiative

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Fisheries and Environmental Monitoring and Research Program

[Redacted text block containing multiple paragraphs of information under the Fisheries and Environmental Monitoring and Research Program section.]

Proposed environmental initiatives

[Redacted text block containing multiple paragraphs of information under the Proposed environmental initiatives section.]

[Redacted]

[Redacted]

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[REDACTED]

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[REDACTED]

7 COMPARISON OF CLASS I RENEWABLES

Based on goals articulated in the 2019 Energy Master Plan, New Jersey has adopted a target-based Renewable Portfolio Standard (“RPS”) approach. In February 2023, Governor Phil Murphy issued an EO that accelerated the clean energy goal for the State to 100 percent by 2035. It is anticipated that investments in solar, energy efficiency, and offshore wind will provide the foundation for achievement of the State’s clean energy goals.

The BPU’s *Guidelines for Application Submission for Proposed Offshore Wind Facilities* requests that applicants provide an assessment of environmental impacts from the Project compared to similar Class I renewable energy projects; and, that these impacts be quantified to the extent they are significant and possible to quantify. Appendix D of this EPP compares the Project to Class I renewable energy projects.

8 ENGAGING ENVIRONMENTAL STAKEHOLDERS

Attentive Energy acknowledges the importance of identifying the cumulative impacts of Project development to the State of New Jersey and the Bight. As such, Attentive Energy has been an open supporter of BOEM’s Programmatic Environmental Impact Statement (“PEIS”) and has been an active participant in its development. As has been mentioned, in addition to its support of the BOEM PEIS, Attentive Energy is also engaged with the RMI process. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Stakeholder outreach

Attentive Energy believes that communication and collaboration are important to being an environmentally responsible offshore wind partner. Attentive Energy will engage in meaningful and transparent communication with stakeholders throughout all phases of Project development and execution.

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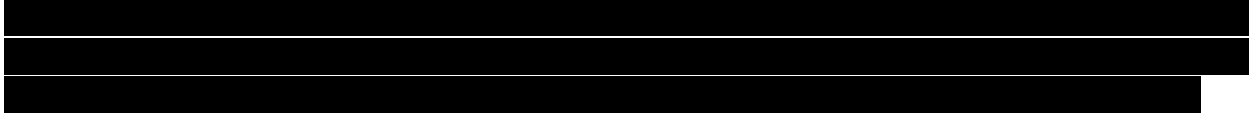


Attentive Energy is committed to collaborating with regional science-based organizations to support and advance the understanding of the impacts of offshore wind on fisheries and wildlife resources. [REDACTED]



9 OVERBURDENED COMMUNITIES

Attentive Energy prioritizes the mitigation of environmental effects to OBCs through the Project's delivery of clean energy to New Jersey. Attentive Energy prioritizes empowering and uplifting these communities through engagement and meaningful community investments. [REDACTED]



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APPENDIX A – BASELINE ENVIRONMENTAL CHARACTERIZATION

Attentive Energy’s Baseline Environmental Characterization is provided as Appendix A to this Environmental Protection Plan (“EPP”). Due to file size, the Baseline Environmental Characterization is uploaded in a separate file from the EPP and other appendices to the EPP.



APPENDIX B – ATMOSPHERIC EMISSIONS

Introduction

Attentive Energy commits itself to bringing significant positive change to the energy industry and operates with a high level of sustainability ambitions. The Project will make a valuable contribution to the State of New Jersey’s emissions reduction targets by displacing fossil fuel-fired generation from the electricity sector, resulting in up to [REDACTED] of avoided carbon dioxide equivalent (“CO₂e”) emissions annually. Attentive Energy forecasts the Project to generate up to a cumulative [REDACTED] of CO₂e through development, construction, operational, and decommissioning activities, while simultaneously eliminating up to approximately [REDACTED] of CO₂e. The Project will avoid up to [REDACTED] of CO₂e emissions (i.e., total avoided emissions minus generated Project emissions) [REDACTED]

[REDACTED] Current emissions forecast data is provisional and will be subject to a full Lifecycle Assessment (“LCA”) and detailed emissions accounting as the Project progresses.

Additionally, Attentive Energy will actively work with supply chain providers and contractors to optimize and manage emissions savings throughout the development of the Project. The information detailed herein fully outlines how the Project serves as an example of responsible industry development, demonstrating that the integration of renewable energy and smart energy infrastructure provides a thoughtful solution to managing energy security and climate issues in the coming decades.

Emission calculation assumptions, methodology, and sources

The calculation methodology utilized for emissions is consistent across all submitted Project options; [REDACTED]

[REDACTED] The initial high-level calculations focus largely on the offshore development, given the greater detail available for site location and characteristics compared to the remaining unknowns tied to the onshore material sourcing and construction activities.

Attentive Energy will produce detailed calculations for onshore emissions and a more detailed offshore assessment following completion of further Project development and procurement work. Current activity assumptions are taken from existing Project design assumptions and are listed in Table B-1 below.

[REDACTED]



[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]



Attentive Energy has identified several strategies it will investigate to meet the objective of decreasing the embodied carbon for the Project, including:

[Redacted text block containing multiple paragraphs of blacked-out content]

GHG emissions reduction

There is the opportunity for key emissions reduction strategies in this category via continued engineering/operational strategies and integration of nature-based solutions.

[Redacted text block containing multiple paragraphs of blacked-out content]



[Redacted text block]

[Redacted text block]

In addition to strategies targeting emissions reductions relating to offshore vessel activity, the Project will employ the following broad emission reduction strategies:

[Redacted text block]

[Redacted text block]



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Emissions monitoring and verification

During and after construction of the Project, Attentive Energy will conduct ongoing monitoring and verification for the emissions and embodied carbon. Attentive Energy will monitor emissions and embodied carbon through supply chain reporting requirements during fabrication and construction to provide verification of the estimates and demonstrate good governance and assurance in emissions management. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[Redacted text block]

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Visibility and Viewshed Impact Study
Lease Area OCS-A 0538



APPENDIX D – CLASS I RENEWABLES COMPARISON

Based on goals articulated in the 2019 Energy Master Plan, New Jersey has adopted a target-based Renewable Portfolio Standard (“RPS”) approach. By Executive Order in February 2023, Governor Phil Murphy accelerated the clean energy goal for the State to 100 percent by 2035. It is anticipated that investments in solar, energy efficiency, and offshore wind will provide the foundation for achievement of the State’s clean energy goals.

The New Jersey Board of Public Utilities’ (“BPU”) *Guidelines for Application Submission for Proposed Offshore Wind Facilities* request that applicants provide an assessment of environmental impacts from the Project compared to similar Class I renewable energy projects, and that these impacts be quantified to the extent they are significant and possible to quantify.

The sections below screen Class I renewable energy sources as to the potential generation capacity relative to the Attentive Energy Two Project and qualitatively summarize potential for environmental impact from key Class I renewable energy sources.

Review of Class I Renewables

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

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[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]



APPENDIX E – ATTACHMENT 6 REQUIREMENTS

Section 3.10 of the Solicitation Guidance Document (“SGD”) describes the elements that each Applicant must submit as part of its EPP. In addition to each of the elements listed in Section 3.10, the EPP must also include an explanation of how the Applicant will implement each of the environmental protection measures that are described in Attachment 6. These environmental protection measures are intended to establish a set of baseline requirements for each Qualified Project and provide additional guidance to Applicants on additional measures that BPU encourages Applicants to employ. Qualified Projects are expected to follow the environmental protection hierarchy (i.e., avoid, minimize, mitigate) to address adverse impacts to natural resources associated with their projects. The environmental protection measures span all phases and components of a Project, including onshore and offshore activities, pre-construction surveys, construction, operation, and, as applicable, decommissioning. Required protection measures are indicated by “shall,” whereas recommended protection measures that BPU encourages Applicants to employ or consider are indicated by “should.” If any of the required minimum environmental protection measures cannot be implemented or are not applicable to the Applicant’s Project, the EPP must explain why.

SGD Attachment 6 Prompts	Attentive Energy Response
Habitat Avoidance, Minimization, and Mitigation	
Qualified Projects should avoid locating facilities near known sensitive seafloor habitats, such as artificial reefs and other prime fishing areas, submerged aquatic vegetation, shellfish areas, and aquaculture leases. Qualified Projects should avoid anchoring on sensitive seafloor habitats.	[REDACTED]
Qualified Projects should avoid hard-bottom habitats, where practicable, and should restore to their original state, if possible, and remedy any damage to these communities	[REDACTED]
Qualified Projects should implement turbidity reduction measures to minimize effects to hard-bottom habitats and including seagrass communities.	[REDACTED]
Qualified Projects should minimize effects to seagrass by limiting vessels related to project planning, construction, and operation to established traffic routes.	[REDACTED]
Qualified Projects should minimize impacts to wetlands by maintaining buffers around wetlands, implementing BMPs from erosion and sediment control, and maintaining natural surface drainage patterns.	[REDACTED]
Cable Installation, Burial, and Maintenance	
To minimize the risk of exposure and entanglement, cables shall be buried to a minimum depth of 2 meters. A shallower cable burial depth may be acceptable if a CBRA supports a burial depth less than 2 meters. If a cable cannot be buried due to resistant substrate, presence of unexploded ordinance, or crossing of a telecommunications cable, the developer shall add protective materials over the cable that minimize risk of gear entanglement. The developer shall conduct routine	[REDACTED]



SGD Attachment 6 Prompts	Attentive Energy Response
<p>surveys or inspections of sub-sea cables as well as inspections following hurricane or other major events causing disturbance to the seabed. If the surveys or inspections reveal cable damage or exposure, the developer shall mitigate the issue and restore cable burial to the standards outlined here.</p>	<p>[REDACTED]</p>
<p>Cable installation and cable maintenance and repair buffer areas shall avoid shipwreck and artificial reef habitats as per N.J.A.C. 7:7-9.13.</p>	<p>[REDACTED]</p>
<p>Siting of export cables should avoid submerged vegetation habitat as per N.J.A.C 7:7-9.6.</p>	<p>[REDACTED]</p>
<p>Turbine Foundation Scour</p>	
<p>Qualified Projects should reduce scouring action by ocean currents around foundations and to seafloor topography by taking all commercially reasonable measures and should employ periodic routine inspections to ensure structural integrity.</p>	<p>[REDACTED]</p>
<p>Qualified Projects should assess the use of ecological enhancements for turbine scour protection to provide offsets from potential adverse impacts. Qualified Projects should consider the biological performance of scour and concrete block mattress materials in design of the turbine foundations</p>	<p>[REDACTED]</p>
<p>Lighting Controls</p>	
<p>Qualified Projects shall comply with FAA and U.S. Coast Guard requirements for lighting in accordance with BOEM’s “Guidelines for Lighting and Marking of Structures Supporting Renewable Energy Development” and should use light technology that minimizes impacts on avian species.</p>	<p>[REDACTED]</p>
<p>Artificial lighting on offshore wind projects shall be reduced to the extent practicable while maintaining human safety and compliance with FAA, U.S. Coast Guard, BOEM, and other regulations.</p>	<p>[REDACTED]</p>
<p>Avian and Bat Resources</p>	
<p>Qualified Projects should evaluate avian and bat use of the Project area and should design the Project to minimize or mitigate the potential for bird and bat strikes and habitat loss.</p>	<p>[REDACTED]</p>
<p>Permanent physical deterrents to perching shall be implemented if there is demonstrated risk at the site (e.g., perching and roosting on infrastructure is a common occurrence) and to the extent that they do not represent a human safety hazard.</p>	<p>[REDACTED]</p>
<p>Siting and construction of nearshore and onshore project components shall be conducted in such a way as to avoid impacts to known nesting beaches of sensitive species during the breeding season, and to minimize the loss or alteration of bird and bat habitat, as well as avoid or minimize disturbance and direct and indirect effects to bird and bat populations and their prey. Nesting beaches, particularly known breeding habitat for listed species, will</p>	<p>[REDACTED]</p>



SGD Attachment 6 Prompts	Attentive Energy Response
<p>be subject to timing restrictions for work done during the breeding season (typically March 1st to August 31st).</p>	<p>[REDACTED]</p>
<p>Onshore infrastructure and development activities should: 1) maximize the use of previously developed or disturbed areas, and 2) avoid unique or protected habitats, as well as habitat for key species, where feasible.</p>	<p>[REDACTED]</p>
<p>Noise and Acoustic Impacts</p>	
<p>Qualified Projects shall plan site characterization surveys by using the lowest sound levels practicable to obtain the information needed.</p>	<p>[REDACTED]</p>
<p>Qualified Projects shall take efforts to minimize disruption and disturbance to marine life from sound emissions, such as pile driving, during construction activities.</p>	<p>[REDACTED]</p>
<p>Qualified Projects should employ, to the extent practicable, state-of-the-art technologies to minimize operational sound effects, as reviewed and approved by jurisdictional authorities.</p>	<p>[REDACTED]</p>
<p>Qualified Projects shall not commence activities that generate significant noise, including geophysical survey work and impact pile driving, during poor visibility conditions such as darkness, fog and heavy rain, unless an alternative mitigation monitoring plan that does not rely on visual observation has been determined to be effective, to the extent compatible with practicality and worker safety.</p>	<p>[REDACTED]</p>
<p>Marine Mammals and Sea Turtles – Vessel Strikes</p>	
<p>All activities are subject to the permitting requirements of the U.S. Marine Mammal Protection Act and the U.S. Endangered Species Act. Qualified Projects shall coordinate as soon as practically possible and often with the NOAA Protected Resources Division, Greater Atlantic Regional Fisheries Office to ensure compliance at all stages of development. Early consultation regarding pre-construction surveys is necessary to allow time for permitting.</p>	<p>[REDACTED]</p>
<p>Vessels related to project planning, construction, and operation shall travel at reduced speeds when cetaceans are observed. Vessels also shall maintain a reasonable distance from whales, small cetaceans, and sea turtles.</p>	<p>[REDACTED]</p>
<p>Qualified Projects shall minimize potential vessel impacts to marine mammals and sea turtles. Operators shall undergo training on applicable vessel guidelines.</p>	<p>[REDACTED]</p>
<p>Qualified Projects shall avoid and minimize impacts to marine species and habitats in the project area by posting a qualified observer on site during construction activities. This observer shall be approved by BOEM and NMFS.</p>	<p>[REDACTED]</p>
<p>Qualified Projects should implement state-of-the-art and innovative technologies to observe and avoid protected</p>	<p>[REDACTED]</p>



SGD Attachment 6 Prompts	Attentive Energy Response
species during pre-construction surveys, construction, and operation of the Project.	[REDACTED]
Visual Impacts	
Qualified Projects shall use appropriate viewshed mapping, photographic and virtual simulations, computer simulation, and field inventory techniques to determine, with reasonable accuracy, the visibility of the proposed project. The viewshed impact analysis should identify sensitive and scenic viewpoints. Qualified Projects should identify methods to mitigate adverse viewshed impacts.	[REDACTED]
[REDACTED]	

To ensure all the required elements of Section 10 and its attachments are addressed and easily located, Attentive Energy created this checklist:

Checklist Item	Document Reference
An Environmental Protection Plan, including the following:	-
Analysis of the anticipated environmental benefits and environmental impacts of the Project (N.J.A.C. 14:8-6.5(a)(11)(xiv))	Attachment 10-A, Sections 2 and 5
A scientifically rigorous description of all associated environmental impacts from preconstruction activities through decommissioning including, but not limited to, environmental, water use, water quality, avian, marine mammals, sea turtle, noise, aesthetics, tourism, navigation, endangered species, sea-bed disruption of marine life, morbidity or mortality among avian, mammal, or benthic populations, emissions of combustion byproducts to the air or oil or other toxic releases to the ocean, or solid waste generation (N.J.A.C. 14:8-6.5(a)(11)(xiv)(1))	Attachment 10-A, Section 5, Appendix A
The anticipated CO ₂ emissions impact of the Project (N.J.A.C. 14:8-6.5(a)(8))	Attachment 10-A, Appendix B
Provide information regarding the direct emissions impacts of the Project, including CO ₂ , SO ₂ , and particulate matter (“PM _{2.5} ”), as well as other relevant environmental impacts, such as impacts on the marine environment (N.J.A.C. 14:8-6.5(a)(11)(xiv)(3))	Attachment 10-A, Appendix B
Provide an assessment of environmental impacts from the Project compared to other similar Class I renewable energy projects (N.J.A.C. 14:8-6.5(a)(11)(xiv)(4))	Attachment 10-A, Appendix D
Environmental impacts (direct and comparative) must be quantified to the extent that they are significant and it is possible to quantify them (N.J.A.C. 14:8-6.5(a)(11)(xiv)(5))	Attachment 10-A, Section 5
The comparative environmental impacts shall be monetized, to the extent possible, for evaluation as part of the overall cost-benefit analysis (see Section 3.17) (N.J.A.C. 14:8-6.5(a)(11)(xiv)(6))	Attachment 10-A, Section 5
A scientifically rigorous description of associated environmental impacts from pre-construction activities through decommissioning, on bats, commercially important finfish and shellfish, aquatic invertebrates, seagrass beds, wetlands, and other sensitive habitats	Attachment 10-A, Section 5



Checklist Item	Document Reference
<p>Maps that identify the locations of sensitive marine, coastal, and terrestrial habitats that are within or in the vicinity of the entire Project footprint (including offshore and onshore cable routes and the entire onshore footprint), including, but not limited to: freshwater wetlands, tidelands, Special Areas as defined by N.J.A.C 7:7-9 (including shellfish habitat, surfclam areas, prime fishing areas, finfish migratory pathways, submerged aquatic vegetation, shipwreck and artificial reef habitats, and endangered or threatened wildlife or plant species habitats), Natural Heritage Priority Areas, Habitat Areas of Particular Concern, Essential Fish Habitat, sand borrow areas, commercial fisheries management areas and reserves, estuary reserves, classification of areas under the jurisdiction of the Pinelands Commission, Green Acres encumbrances, and OBCs</p>	<p>Attachment 10-A, Appendix A</p>
<p>Information regarding the Project’s direct emissions of NO_x during the development, construction, operation, and decommissioning of the Project that is consistent with the emissions impacts reported in the Application Form, including a full accounting of emissions produced from vehicles, vessels, and machinery</p>	<p>Attachment 10-A, Appendix B</p>
<p>A description of the baseline and monitoring data that the Applicant intends to collect from preconstruction through decommissioning regarding the spatial and temporal presence of marine mammals, sea turtles, and avian species</p>	<p>Attachment 10-A, Section 3</p>
<p>A description of how the Applicant plans to make the baseline and monitoring data available to NJDEP and other designated parties consistent with the Data Management and Availability Plan requirements in Attachment 7 herein</p>	<p>Attachment 10-A, Section 4</p>
<p>A description of any commitments to fund research related to the assessment and avoidance of environmental impacts, including impacts to marine wildlife, in addition to the required fee described in the introduction to this section</p>	<p>Attachment 10-A, Section 6</p>
<p>A description of the considerations related to identifying the cumulative impacts of New Jersey’s offshore wind development plans as well as interactive impacts with offshore wind development plans in neighboring states</p>	<p>Attachment 10-A, Section 5</p>
<p>A description of how the Applicant will identify (or has identified) environmental stakeholders, any outreach that has occurred to date, and how the Applicant proposes to communicate with those stakeholders during pre-construction activities through decommissioning, as well as a plan for transparent reporting of how stakeholders’ concerns were addressed;</p>	<p>Attachment 10-A, Section 8</p>
<p>A description of lighting controls for the Project, consistent with the requirements in Attachment 6 herein</p>	<p>Attachment 10-A, Section 5</p>
<p>A description of the expected impact of noise during the development, construction, operation, and decommissioning of the Project, on marine life and onshore communities</p>	<p>Attachment 10-A, Section 5</p>
<p>A description of how onshore elements of the Project will be compatible with surrounding land use and communities and will safeguard environmentally and culturally sensitive areas</p>	<p>Attachment 10-A, Section 5</p>
<p>A description of the potential impact of the Project on OBCs, as defined in New Jersey’s Environmental Justice Law N.J.S.A.13:1D-157</p>	<p>Attachment 10-A, Section 9</p>
<p>If impacts to an OBC are anticipated during or after construction, including, but not limited to, increased noise, dust, impervious surface, truck traffic, or loss of tree canopy or open space, the Applicant shall (1) include a community engagement plan specific to the impacted OBC, as part of the required content described in Section 3.9 and (2) identify local government entities and relevant stakeholders or community-based organizations, and propose control measures to avoid, minimize, or otherwise offset those impacts</p>	<p>Attachment 10-A, Section 9</p>
<p>A description of how the direct and avoided emissions of the Project, as reported in the Application Form, were calculated, including all assumptions used in preparing estimates of direct and avoided emissions</p>	<p>Attachment 10-A, Appendix B</p>
<p>A description of any innovative measures that will be employed to minimize embodied carbon, that is, carbon and other greenhouse gas emissions associated with the manufacture, transportation, installation, maintenance, and disposal of materials comprising the Project</p>	<p>Attachment 10-A, Appendix B</p>



Checklist Item	Document Reference
A description of how the Applicant plans to avoid, minimize, and/or mitigate any releases of oil, particulate matter, or hazardous materials that may arise during the development, construction, operation, or decommissioning of the Project.	Attachment 10-A, Section 5 and Appendix B
A visibility study that presents visual simulations of the Project from the nearest coastline point, including, at a minimum, clear, partly cloudy, and overcast conditions during early morning, midafternoon, and late day, as well as one simulation at night with the turbines lit under clear conditions, for both summer and winter	Attachment 10-A, Appendix C
A Data Management and Availability Plan as described in Attachment 7	Attachment 10-B
An Offshore Wind Infrastructure Monitoring Plan consistent with the requirements provided in Attachment 8	Attachment 10-C
Attachment 6 Checklist	Attachment 10-A, Appendix D

Key: BMP – best management practice; BOEM – Bureau of Ocean Energy Management; BPU – New Jersey Board of Public Utilities; CO₂ – carbon dioxide; COP – Construction and Operations Plan; EPP – Environmental Protection Plan; FAA – Federal Aviation Administration; N.J.A.C. – New Jersey Administrative Code; N.J.S.A. – New Jersey Statutes Annotated; NMFS – National Marine Fisheries Service; NOAA – National Oceanic and Atmospheric Administration; OBC – Overburdened Community; NJDEP – New Jersey Department of Environmental Protection; PM_{2.5} – particulate matter that is 2.5 micrometers or smaller in diameter



