

**Environmental Mitigation Plan (“Narrative Component”)
for
Port of Coeymans
Offshore Wind Nacelle Manufacturing Facility
Version [1.0]**

Prepared pursuant to ORECRFP 22-1, 11/3/2022

with

**New York State Energy Research and Development Authority
Albany, NY**

Prepared for:

**GE Vernova, our portfolio of energy businesses
GE Offshore Wind & LM Wind Power**



GE VERNOVA
Our portfolio of energy businesses



GE Renewable Energy

**LM WIND
POWER**

a GE Renewable Energy business

Contents

Environmental Mitigation Plan – Narrative Component	1
E.1 Environmental Mitigation Plan Summary	2
E2. Communications and Collaborations	13
E3. Environmental Monitoring and Research Pre-, During- and Post-Construction	14
E4. Supporting Other Environmental Research	15
E5. Marine Mammals and Sea Turtles	15
E6. Birds and Bats	16
E7. Fish, Invertebrates and their Habitats	16
E8. Consideration for Subsea and Overland Cables	17
E9. Additional Considerations	17
E10. Project Decommissioning	17
Table EMP-1. Summary of Potential Environmental Impacts and Mitigation Considerations (Overall Planning Matrix)	4

Environmental Mitigation Plan – Narrative Component

This Environmental Mitigation Plan (EMP) has been prepared by Arcadis US, Inc. (Arcadis) as a component of the General Electric Renewable Energy's LM Wind Power Group's (GE's) proposal to support the development of future Offshore Wind (OSW) renewable energy in New York State. GE is well-aligned to support this initiative in New York State and the OWS Developer for several reasons:

- GE is leading the offshore wind industry with the latest technologies including [REDACTED]. GE has invested more than \$400 million to develop leading technologies while leveling costs for their customers.
- GE has installed more than 400+ gigawatts of clean renewable energy and equipped more than 90 percent of utilities worldwide with its grid solutions. GE operates a global network of local offshore wind power service centers that offer a full range of services to enhance availability of equipment, improve energy generation, and optimize performance.
- GE has a significant employee and business presence in New York State and has supported renewable energy (and other businesses) and environmental restoration projects within the state for several decades.
- GE's approach to environmental mitigation will ensure that the development and operation of an [REDACTED] [REDACTED] in the Town of Coeymans, Albany County will not only satisfy all federal, state, and local laws, but further contribute to the advancement of our understanding of sustainable development practices.

[REDACTED]

[REDACTED]

- [REDACTED]]]

E.1 Environmental Mitigation Plan Summary

The 2022 OSW Solicitation requires the EMP to detail, to the extent practical, specific measures that will be taken to avoid, minimize, and/or mitigate potential environmental impacts of the proposed Project. [REDACTED]

- Marine mammals and sea turtles.
- Birds and bats.
- Fish and invertebrates.

Certain of the above categories (or portions thereof) are applicable to the overall Project, especially related to construction and operational activities within or near the Hudson River and aquatic setting. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Table EMP-1 (presented at the end of this section) describes the overall “roadmap” (content and organizational structure) for environmental mitigation associated with all phases of the Project life cycle. The table focuses first on the three categories of environmental impacts associated with the EMP structure (reflecting the requirements of the 2022 OSW Solicitation), then highlights other environmental impacts that will likely be considered and addressed through stakeholder coordination and regulatory permitting. Future iterations of the EMP will outline best management practices, industry standards, scheduling, or other mitigating strategies that will support and align with various federal, state, and local reviews, permits, and approval processes.

To advance the EMP framework presented herein, GE will work closely and collaboratively with the OSW Developer; federal, state, and local regulatory agencies; and other stakeholders to consider the broad range of potential environmental impacts associated with the Project.

Category	Impact	Mitigation Strategy	Responsible Party
Construction
Operation
Decommissioning

Table EMP-1. Summary of Potential Environmental Impacts and Mitigation Considerations (Overall Planning Matrix)

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Nacelle Transportation - Downriver Areas
<p>Planning / Design</p> <p>Primarily focused on establishment of baseline conditions to avoid and/or mitigate environmental impacts.</p> <p>[Note – Applicable Federal, State, and Local Regulations and Permits/Approvals will be Considered, as well as Stakeholder Engagement]</p>	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as applicable): <ul style="list-style-type: none"> - Birds and Bats • Baseline Physical Surveys (Wetlands, Topography, Geology, Soils) • Environmental Testing (Soils and Groundwater) • Wildlife and Habitat Resources and Assessments. Including Rare, Threatened, and Endangered Species • Identify seasonal restrictions for sensitive species • Migratory birds and golden/bald eagle habitat assessment. • Flood Hazard Areas and Coastal Zone Management Area mapping. • Historic and cultural resource investigations • Facility Siting - Minimize Impacts to Physical Setting; Align 	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as applicable): <ul style="list-style-type: none"> - Birds and Bats - Fish and Invertebrates • Baseline Physical Surveys (Waters, Wetlands, riparian areas, Topography, Bathymetry, Flows, Geology, Soils, Sediments) • Environmental Testing (Soils, Sediment, Surface Water) • Wildlife and Habitat Resources and Assessments. Including Rare, Threatened, and Endangered Plant and Animal Species • Identify seasonal restrictions for sensitive species • Migratory birds and golden/bald eagle habitat assessment. • Essential fish habitats and benthic characterization. 	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as applicable): <ul style="list-style-type: none"> - Marine Mammals and Sea Turtles - Birds and Bats - Fish and Invertebrates • Rare, Threatened, and Endangered Plant and Animal Species, including critical resource areas. • Essential fish habitats. • Migratory birds and golden/bald eagle habitat assessment. • Seasonal Time of Year Work Restrictions or Best Management Practices for Endangered Species and/or Physical Hazards • Greenhouse gas (GHG) emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources)

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Nacelle Transportation - Downriver Areas
	<p>Work with Existing Disturbed Areas</p> <ul style="list-style-type: none"> • Construction Methodologies - Regulations and Guidelines • Traffic and noise control planning • Greenhouse Gas (GHG) Emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources) 	<ul style="list-style-type: none"> • Flood hazard areas and coastal zone management area mapping. • Historic and cultural resource investigations • Construction Methodologies - Regulations and Guidelines • Traffic and noise control planning • Greenhouse Gas (GHG) emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources) 	

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Nacelle Transportation - Downriver Areas
<p>Construction Phase</p> <p>[Note - Specific Operational Activities to Reflect Outcome of Planning/Design, Permitting/Approval, and Stakeholder Engagement Activities]</p>	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as Applicable): <ul style="list-style-type: none"> - Birds and Bats • Waters, Wetlands Protection and Mitigation • Threatened and Endangered Species protection and mitigation. Including critical resource areas. • Historic and cultural resource protection. • Solid Waste Management • Stormwater Management • Soil erosion and Sediment Controls • Air Emissions/Dust Suppression • Noise and Traffic Controls • Spill Prevention and Control • Construction Vehicle and Work Zone Lighting • Management of Excess Spoil and Excavation Materials 	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as Applicable): <ul style="list-style-type: none"> - Birds and Bats - Fish and Invertebrates • Waters, Wetlands Protection and Mitigation • Threatened and Endangered Species protection and mitigation. Including critical resource areas. • Essential fish habitat protection and mitigation. • Historic and cultural resource protection. • Solid Waste Management • Stormwater Management • Soil erosion and Sediment Controls • Air Emissions/Dust Suppression • Noise and Traffic Controls • Spill Prevention and Control • Construction Vehicle and Work Zone Lighting • Management of Excess Spoil and 	<div style="background-color: black; height: 15px; width: 100%;"></div> <div style="background-color: black; height: 15px; width: 95%;"></div> <div style="background-color: black; height: 15px; width: 90%;"></div> <div style="background-color: black; height: 15px; width: 85%;"></div> <div style="background-color: black; height: 15px; width: 80%;"></div> <div style="background-color: black; height: 15px; width: 75%;"></div> <div style="background-color: black; height: 15px; width: 70%;"></div>

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Nacelle Transportation - Downriver Areas
	<ul style="list-style-type: none"> • Protection of Natural Vegetation and Adjacent Resources • Introduction and Spread of Invasive Plant Species • Site restoration where applicable. 	<ul style="list-style-type: none"> • Excavation/Dredging Materials • Protection of Natural Vegetation and Adjacent Resources • Introduction and Spread of Invasive Plant Species • Site restoration where applicable 	
<p>Operation Phase</p> <p>[Note - Specific Operational Activities to Reflect Outcome of Planning/Design, Permitting/Approval, and Stakeholder Engagement Activities]</p>	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as Applicable): <ul style="list-style-type: none"> - Birds and Bats • Permitted Air, Water, and Wastewater Discharges and Emissions • Planned Inspections and Maintenance by Operations Staff • Stormwater Pollution Prevention Plan • Waste Storage and Management • Fuel Use and Storage • Spill Prevention, Control, and Countermeasure Plan • Landscaping and Vegetation Control • Lighting Reduction Measures 	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as Applicable): <ul style="list-style-type: none"> - Birds and Bats - Fish and Invertebrates • Protection of Fish and Aquatic Life from Harm from Pollutants • Planned Inspections and Maintenance by Operations Staff • Permitted Air, Water, and Wastewater Discharges and Emissions • Waste Storage and Management • Fuel Use and Storage • Navigational Safety Risk Assessment for Vessel Traffic • Seasonal Navigational Safety 	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as Applicable): <ul style="list-style-type: none"> - Marine Mammals and Sea Turtles - Birds and Bats - Fish and Invertebrates • Protection of Fish and Aquatic Life from Harm from Pollutants • Planned Inspections and Maintenance by Operations Staff. Staff education relative to sensitive species. • Transportation in Commerce Requirements • Industry-standard requirements (State and Federal DOT, Coast Guard, etc.) • Navigational Safety Risk Assessment for Vessel Traffic

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Nacelle Transportation - Downriver Areas
		<ul style="list-style-type: none"> Periodic maintenance dredging to maintain deep-water port. 	<ul style="list-style-type: none"> Seasonal Navigational Safety
<u>Decommissioning</u>	<p>This activity and Project phase is generally not applicable to this EMP. Developed infrastructure is assumed to be re-purposed. [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>This activity and Project phase is generally not applicable to this EMP.</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>This activity and Project phase is generally not applicable for this EMP;</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Nacelle Transportation - Downriver Areas
<p>Planning / Design</p> <p>Primarily focused on establishment of baseline conditions to avoid and/or mitigate environmental impacts.</p> <p>[Note – Applicable Federal, State, and Local Regulations and Permits/Approvals will be Considered, as well as Stakeholder Engagement]</p>	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as applicable): <ul style="list-style-type: none"> - Birds and Bats • Baseline Physical Surveys (Wetlands, Topography, Geology, Soils) • Environmental Testing (Soils and Groundwater) • Wildlife and Habitat Resources and Assessments. Including Rare, Threatened, and Endangered Species • Identify seasonal restrictions for sensitive species • Migratory birds and golden/bald eagle habitat assessment. • Flood Hazard Areas and Coastal Zone Management Area mapping. • Historic and cultural resource investigations • Facility Siting - Minimize Impacts to Physical Setting; Align Work with Existing Disturbed Areas 	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as applicable): <ul style="list-style-type: none"> - Birds and Bats - Fish and Invertebrates • Baseline Physical Surveys (Waters, Wetlands, riparian areas, Topography, Bathymetry, Flows, Geology, Soils, Sediments) • Environmental Testing (Soils, Sediment, Surface Water) • Wildlife and Habitat Resources and Assessments. Including Rare, Threatened, and Endangered Plant and Animal Species • Identify seasonal restrictions for sensitive species • Migratory birds and golden/bald eagle habitat assessment. • Essential fish habitats and benthic characterization. • Flood hazard areas and coastal zone 	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as applicable): <ul style="list-style-type: none"> - Marine Mammals and Sea Turtles - Birds and Bats - Fish and Invertebrates • Rare, Threatened, and Endangered Plant and Animal Species, including critical resource areas. • Essential fish habitats. • Migratory birds and golden/bald eagle habitat assessment. • Seasonal Time of Year Work Restrictions or Best Management Practices for Endangered Species and/or Physical Hazards • Greenhouse gas (GHG) emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources)

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Nacelle Transportation - Downriver Areas
	<ul style="list-style-type: none"> • Construction Methodologies - Regulations and Guidelines • Traffic and noise control planning • Greenhouse Gas (GHG) Emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources) 	<ul style="list-style-type: none"> • management area mapping. • Historic and cultural resource investigations • Construction Methodologies - Regulations and Guidelines • Traffic and noise control planning • Greenhouse Gas (GHG) emissions • Potential Climate Change Risks (water level rise; flooding; wind; changes in temperatures and precipitation; impacts on species and other natural resources) 	

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Nacelle Transportation - Downriver Areas
<p>Construction Phase</p> <p>[Note - Specific Operational Activities to Reflect Outcome of Planning/Design, Permitting/Approval, and Stakeholder Engagement Activities]</p>	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as Applicable): <ul style="list-style-type: none"> - Birds and Bats • Waters, Wetlands Protection and Mitigation • Threatened and Endangered Species protection and mitigation. Including critical resource areas. • Historic and cultural resource protection. • Solid Waste Management • Stormwater Management • Soil erosion and Sediment Controls • Air Emissions/Dust Suppression • Noise and Traffic Controls • Spill Prevention and Control • Construction Vehicle and Work Zone Lighting • Management of Excess Spoil and Excavation Materials 	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as Applicable): <ul style="list-style-type: none"> - Birds and Bats - Fish and Invertebrates • Waters, Wetlands Protection and Mitigation • Threatened and Endangered Species protection and mitigation. Including critical resource areas. • Essential fish habitat protection and mitigation. • Historic and cultural resource protection. • Solid Waste Management • Stormwater Management • Soil erosion and Sediment Controls • Air Emissions/Dust Suppression • Noise and Traffic Controls • Spill Prevention and Control • Construction Vehicle and Work Zone Lighting • Management of Excess Spoil and 	<div style="background-color: black; height: 15px; width: 100%;"></div> <div style="background-color: black; height: 15px; width: 95%;"></div> <div style="background-color: black; height: 15px; width: 90%;"></div> <div style="background-color: black; height: 15px; width: 80%;"></div> <div style="background-color: black; height: 15px; width: 75%;"></div> <div style="background-color: black; height: 15px; width: 85%;"></div> <div style="background-color: black; height: 15px; width: 95%;"></div>

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Nacelle Transportation - Downriver Areas
	<ul style="list-style-type: none"> • Protection of Natural Vegetation and Adjacent Resources • Introduction and Spread of Invasive Plant Species • Site restoration where applicable. 	<ul style="list-style-type: none"> • Excavation/Dredging Materials • Protection of Natural Vegetation and Adjacent Resources • Introduction and Spread of Invasive Plant Species • Site restoration where applicable 	
<p>Operation Phase</p> <p>[Note - Specific Operational Activities to Reflect Outcome of Planning/Design, Permitting/Approval, and Stakeholder Engagement Activities]</p>	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as Applicable): <ul style="list-style-type: none"> - Birds and Bats • Permitted Air, Water, and Wastewater Discharges and Emissions • Planned Inspections and Maintenance by Operations Staff • Stormwater Pollution Prevention Plan • Waste Storage and Management • Fuel Use and Storage • Spill Prevention, Control, and Countermeasure Plan • Landscaping and Vegetation Control • Lighting Reduction Measures 	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as Applicable): <ul style="list-style-type: none"> - Birds and Bats - Fish and Invertebrates • Protection of Fish and Aquatic Life from Harm from Pollutants • Planned Inspections and Maintenance by Operations Staff • Permitted Air, Water, and Wastewater Discharges and Emissions • Waste Storage and Management • Fuel Use and Storage • Navigational Safety Risk Assessment for Vessel Traffic • Seasonal Navigational Safety 	<ul style="list-style-type: none"> • EMP Categories Per 2022 OSW Solicitation (as Applicable): <ul style="list-style-type: none"> - Marine Mammals and Sea Turtles - Birds and Bats - Fish and Invertebrates • Protection of Fish and Aquatic Life from Harm from Pollutants • Planned Inspections and Maintenance by Operations Staff. Staff education relative to sensitive species. • Transportation in Commerce Requirements • Industry-standard requirements (State and Federal DOT, Coast Guard, etc.) • Navigational Safety Risk Assessment for Vessel Traffic

Project Life-Cycle Phase	Potential Environmental Impacts and Mitigation Considerations		
	Wind Nacelle Manufacturing / Warehouse Facility	Port Facility Infrastructure Expansion/Upgrades	Nacelle Transportation - Downriver Areas
		<ul style="list-style-type: none"> Periodic maintenance dredging to maintain deep-water port. 	<ul style="list-style-type: none"> Seasonal Navigational Safety
<u>Decommissioning</u>	<p>This activity and Project phase is generally not applicable to this EMP. Developed infrastructure is assumed to be re-purposed. [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>This activity and Project phase is generally not applicable to this EMP.</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>This activity and Project phase is generally not applicable for this EMP;</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

E2. Communications and Collaborations

GE understands that consultation and coordination with relevant stakeholders is critical to the success of this Project, specifically to identify potential risks or opportunities for sufficiently avoiding and/or mitigating environmental impacts. This is further recognized in Table EMP-1 which identifies consideration of all applicable federal, state, and local regulations and permits/approvals, as well as stakeholder engagement throughout the Project life cycle. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- The New York State Department of State (DOS) with respect to a Project’s consistency with the policies set forth in the State’s Coastal Management Program.
- The New York State Department of Environmental Conservation (DEC) with respect to assessment and mitigation of potential environmental impacts, including but not limited to, water quality, air quality, benthic communities, fish, fisheries, and wildlife impacts of the Project.

- The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) with respect to the assessment and mitigation of effects on sites of historic or archeological significance.
- NYSERDA as a point of contact with respect to a Project's general consistency with the New York State Offshore Wind Master Plan and stakeholder feedback.
- NYSERDA with respect to identifying and delivering benefits to Disadvantaged Communities.]]

[REDACTED]

[REDACTED]

[REDACTED]

E3. Environmental Monitoring and Research Pre-, During- and Post-Construction

GE recognizes the need for further empirical research related to the development of OSW projects. GE will coordinate directly with the OSW Developer to support as necessary any required pre- and post-construction monitoring. GE is committed to collaborating with OSW Developer to ensure collaboration with the scientific community, E-TWG, relevant stakeholders, and third-party groups to conduct robust and relevant research that relates directly to monitoring

[REDACTED]

[REDACTED]

[REDACTED]

[Redacted]

E4. Supporting Other Environmental Research

Consistent with the discussion in Section E3 above, GE recognizes the need for further empirical research related to the development of the OSW projects that GE intends to support. GE is committed to collaborating with OSW Developer, the scientific community, E-TWG, relevant stakeholders, and third-party groups to conduct robust and relevant research that relates directly to monitoring environmental resources that could be affected by OSW projects. [Redacted]

[Redacted]

Since this EMP focuses on potential environmental issues and concerns associated with more traditional upland area and waterfront construction projects and operations, supporting environmental research is more applicable and critical to the development of the OSW projects rather than an SCIP Facility. Nevertheless, GE is committed to collaborating with the OSW Developer and supporting third-party research activities for environmental resources potentially impacted by the Project

[Redacted]

E5. Marine Mammals and Sea Turtles

National Oceanic and Atmospheric Administration (NOAA) Fisheries Greater Atlantic Region ESA Section 7 Mapper identifies the upper extent of sea turtles within the Hudson River to be lower Manhattan proximate to Brookfield Place ferry terminal. The upper extent of Atlantic large whales with the Upper New York Bay is the Verrazano Bridge. As such, development of a [Redacted] are not anticipated to impact marine mammals and sea turtles.

[Redacted]

[Redacted]

[Redacted]

[Redacted text block]

E6. Birds and Bats

It [Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

E7. Fish, Invertebrates and their Habitats

[Redacted text block]

[Redacted text block]

[Redacted text block]

This EMP recognizes that the POC has already obtained approval under SEQRA and an individual U.S. Army Corps of Engineers (USACE) permit for the expansion of the port and related infrastructure to support the OSW industry. Through that process, relevant information and data was collected and presented to the stakeholders to satisfy federal and state regulatory requirements. Future revisions of this EMP will incorporate edits that address proposed mitigation measures as they relate to (1) [Redacted]

[Redacted text block]

E8. Consideration for Subsea and Overland Cables

This section is not applicable to activities covered under this EMP that focus on development of the new nacelle manufacturing facility, POC expansion, and in-river transport of the nacelles to the HRE.

E9. Additional Considerations

Future considerations to be addressed by this EMP will include emphasis on (1) [Redacted]

E10. Project Decommissioning

Given the scope of the activities covered under this RFP, Project decommissioning is not expected to occur specific to: (1) [Redacted]

**Environmental Mitigation Plan (“Standardized
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Offshore Wind Nacelle Manufacturing Facility
Version [1.0]**

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**New York State Energy Research and Development Authority
Albany, NY**

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**LM WIND
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Record of Revision

Revision Date	Description of Changes	Revision on Pages
[date]	[original issue]	[page(s)]

Communication Officers, Contact Information, Links

Name/Title	Role	Contact Information
[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]

Contents

- Record of Revision i**
- Communication Officers, Contact Information, Links ii**
- Acronyms and Abbreviations v**
- 1 Environmental Mitigation Plan Summary 1-1**
- 1.1 Overall Philosophy and Principles 1-1
- 1.2 Overall Approach to Incorporating Data and Stakeholder Feedback 1-3
- 1.3 Existing Guidance and Best Practices That Will Be Followed 1-4
- 2 Communications and Collaboration Approach 2-1**
- 2.1 Overview and Communication Plan Objectives 2-1
- 2.2 Communication Officers/Positions, Responsibilities, and Contact Information 2-1
- 2.3 Identification of Stakeholders 2-1
- 2.4 Participation in stakeholder and technical working groups 2-2
- 2.4.1 Communication with E-TWG 2-2
- 2.4.2 Communication with other New York State agencies 2-2
- 2.4.3 Communication with Other Stakeholder and Working Groups 2-3
- 2.4.4 Communication and collaboration with other developers 2-3
- 2.5 Communication methods and tools by phase 2-3
- 3 Supporting Other Research 3-1**
- 3.1 Support of Collaborative Research 3-1
- 3.2 Handing/Processing Requests 3-1
- 3.3 Data Availability 3-1
- 3.4 Proposed Restrictions 3-1
- 3.5 Financial Commitment for Third Party Research 3-1
- 3.6 Proposed or Existing Commitments/Collaborations 3-2
- 4 Proposed Mitigation of Impacts to Marine Mammals and Sea Turtles 4-1**
- 4.1 Baseline Characterization 4-1
- 4.1.1 Available Information 4-1
- 4.1.2 Data Being Collected 4-1
- 4.2 Species at Risk 4-2
- 4.3 Potential Impacts and Mitigation Measures by Phase 4-2

4.4	Monitor for Potential Impacts During Each Phase	4-5
4.4.1	Pre/Post Monitoring to Assess and Quantify Impacts and Changes	4-5
4.4.2	Address Data Gaps.....	4-6
4.5	Strategies for Developing Alternate Protocols.....	4-6
5	Proposed Mitigation of Impacts to Birds and Bats	5-1
5.1	Baseline characterization	5-1
5.1.1	Available information	5-1
5.1.2	Data collected	5-2
5.2	Species at risk	5-2
5.3	Potential impacts/risks and mitigation measures by Project stage	5-2
5.4	Monitor for impacts during each phase.....	5-4
5.4.1	Pre/Post monitoring to assess and quantify changes.....	5-4
5.4.2	Address data gaps.....	5-4
5.5	Strategies for developing alternate protocols.....	5-5
6	Proposed Mitigation of Impacts to Fish, Invertebrates and their Habitats	6-1
6.1	Baseline characterization	6-1
6.1.1	Available information	6-1
6.1.2	Data being collected	6-1
6.2	Species at risk	6-1
6.3	Potential impacts/risks and mitigation measures by Project stage	6-2
6.4	Monitor for Impacts During Each Phase	6-4
6.4.1	Pre/Post Monitoring to Assess and Quantify Changes	6-4
6.4.2	Addressing data gaps.....	6-4
6.5	Strategies for developing alternate protocols.....	6-4
7	Considerations for Subsea and Overland Cables	7-1
8	Additional Considerations.....	8-1
8.1	Additional Mitigation Strategies and EMP Refinement	8-1
8.2	Process for updating the EMP.....	8-1
9	Project Decommissioning.....	9-1
9.1	Potential impacts on marine wildlife, birds, bats, and fisheries.....	9-1

Acronyms and Abbreviations

Arcadis	Arcadis US, Inc.
BOEM	Bureau of Ocean Energy Management
CSAP	Cetacean and Seabird Assessment Program
EFH	Essential Fish Habitat
EMF	Electromagnetic Fields
EMP	Environmental Mitigation Plan
ESA	Endangered Species Act
E-TWG	Environmental Technical Working Group
GE	General Electric Renewable Energy's LM Wind Power Group
HRE	Hudson-Raritan Estuary
IPaC	Information for Planning and Consultation
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service
NYDOPS	New York State Department of Public Service
NYDOS	New York Department of State
NYOGS	New York Office of General Services
NYPRHP	New York Office of Parks, Recreation, and Historic Preservation
NYSERDA	New York State Energy Research & Development Authority
NYSDEC	New York Department of Environmental Conservation
OBIS	Ocean Biogeographic Information System
OSW	Offshore Wind
POC	Port of Coeymans
PSOs	Protected Species Observers
RFP	Request for Proposal
SCIP	Supply Chain Investment Plan
SEQR	State Environmental Quality Review
USFWS	United States Fish and Wildlife Service
USACE	United States Army Corps of Engineers

OSDOE United States Dept. of Energy

1 Environmental Mitigation Plan Summary

1.1 Overall Philosophy and Principles

This section should describe the overall philosophy and principles the Developer will follow to avoid, minimize, restore, and off-set potential environmental impacts.

This Environmental Mitigation Plan (EMP) has been prepared by Arcadis US, Inc. (Arcadis) as a component of [REDACTED] [REDACTED] [REDACTED] GE is well-aligned to support this OSW wind initiative in New York State [REDACTED]

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

- GE has a significant employee and business presence in New York State and has supported renewable energy (and other businesses) and environmental restoration projects within the state for several decades.
- GE's approach to environmental mitigation will ensure that the development and operation of an [REDACTED] [REDACTED] in the Town of Coeymans, Albany County will not only satisfy all federal, state, and local laws, but further contribute to the advancement of our understanding of sustainable development practices.

[REDACTED]
[REDACTED]
[REDACTED].
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
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[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

Overall Project EMP Understanding

The 2022 OSW Solicitation requires the EMP to detail, to the extent practical, specific measures that will be taken to avoid, minimize, and/or mitigate potential environmental impacts of the proposed Project. Appendices E and C.2 of the Solicitation further describe the contents of the EMP and three specific categories of impacts to address:

[REDACTED]

Certain of the above categories (or portions thereof) are applicable to the overall Project, especially related to construction and operational activities within or near the Hudson River and aquatic setting. [REDACTED]

[REDACTED]

Future iterations of this EMP will evolve to reflect ongoing planning and design activities for the [REDACTED] facility and future OSW projects that it will support; in addition to regulatory and stakeholder communications and permitting and approval processes, including but not limited to those required under the New York State Environmental Quality Review Act ("SEQRA") related to SCIP Facilities. These activities will result in a broad and comprehensive assessment of potential environmental impacts and concerns, and corresponding mitigation measures, protective activities, best management practices, etc. that will be incorporated into the Project. There is a wide range of potential environmental impacts and related considerations that will be addressed throughout the Project lifecycle (planning/design, construction, operations, and decommissioning), based on the following:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

To advance the EMP framework presented herein, GE will work closely and collaboratively with the OSW Developer; federal, state, and local regulatory agencies; and other stakeholders to consider the broad range of potential environmental impacts associated with the Project. Future iterations of the EMP will outline best management practices, industry standards, scheduling, or other mitigating strategies that likely draw from the activities related to the various federal, state, and local reviews, permits, and approval processes.

The remainder of this EMP provides an initial assessment of potential environmental concerns and issues, and to the extent possible a discussion of the typical mitigation activities that will be employed. [REDACTED]

[REDACTED]

1.2 Overall Approach to Incorporating Data and Stakeholder Feedback

This section should describe how the Developer will use research, data, and stakeholder feedback to update the EMP and support decision-making throughout the life cycle of the project (preconstruction, surveys, site design, construction, operations, and decommissioning).

- GE understands that consultation and coordinate with relevant stakeholders is critical to the success of this Project. Specifically, it is a means of identifying potential risks or opportunities for sufficiently avoiding and/or mitigating environmental impacts.

[REDACTED]

1.3 Existing Guidance and Best Practices That Will Be Followed

This section should present a list of existing guidance documents, publications, tools, and/or plans that will be followed to support the EMP. Include links, if available, for all references.

- GE will follow relevant guidance documents and rely on publications, tools, and/or plans to support development of this EMP in accordance with applicable permit requirements. Such reference materials could include, but not be limited to, the following as needed:
 - Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan (Bureau of Ocean Energy Management [BOEM] 2018) <https://www.boem.gov/Draft-Design-Envelope-Guidance/>
 - Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585 (BOEM 2017) [https://www.boem.gov/Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30CFR585/](https://www.boem.gov/Guidelines%20for%20Providing%20Archaeological%20and%20Historic%20Property%20Information%20Pursuant%20to%2030CFR585/)
 - Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585 (BOEM 2015) [https://www.boem.gov/G G Guidelines Providing Geophysical Geotechnical Geohazard Information Pursuant to 30 CFR Part 585/](https://www.boem.gov/G%20Guidelines%20Providing%20Geophysical%20Geotechnical%20Geohazard%20Information%20Pursuant%20to%2030%20CFR%20Part%20585/)
 - Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (National Oceanic and Atmospheric Administration [NOAA] Fisheries 2018) <https://www.fisheries.noaa.gov/resource/document/technical-guidance-assessing-effects-anthropogenic-sound-marine-mammal-hearing>
 - U.S. Dept. of Energy (OSDOE) "Tethys" database for OSW energy publications (USDOE-PNNL 2019) <https://tethys.pnnl.gov/>
 - NYSERDA Publications
 - <https://www.nyserda.ny.gov/About/Publications>
 - <https://www.nyserda.ny.gov/About/Publications/Offshore-Wind-Plans-for-New-York-State>
 - BOEM Renewable Energy Research (BOEM 2019) <https://www.boem.gov/Renewable-Energy-Environmental-Studies/>
 - Summary Report: Best Management Practices Workshop for Atlantic Offshore Wind Facilities and Marine Protected Species (BOEM 2018) <https://www.boem.gov/Final-Summary-Report-for-BMP-Workshop-BOEM/>
 - Northeast Ocean Data Explorer (NROC 2019) <https://www.northeastoceandata.org/>
 - Mid-Atlantic Ocean Data Portal (MARCO 2019) <https://portal.midatlanticocean.org/>
 - BOEM/NOAA Marine Cadastre (BOEM & NOAA 2019) <https://marinecadastre.gov/>
 - NOAA Essential Fish Habitat (EFH) Data Inventory <https://www.habitat.noaa.gov/application/efhinventory/index.html>
 - Ocean Biogeographic Information System (OBIS) Mapper and Protected Species Database (OBIS 2019)
 - <https://mapper.obis.org/>
 - <https://mgel.env.duke.edu/projects-old/obis-seamap/>

- NOAA-U.S. Fish and Wildlife Service (USFWS) Endangered Species Act (ESA) inventory/mapper and Section-7 Consultation tools - Mapper and IPaC (NOAA 2019; USFWS 2019)
 - <https://www.greateratlantic.fisheries.noaa.gov/protected/section7/listing/index.html>
 - <https://ecos.fws.gov/ipac/>
- NOAA Marine Mammal Acoustic Technical Guidance (NOAA 2018)
 - <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance>
- NOAA Marine Mammal Annual Stock Assessments (NOAA 2019)
 - <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments>
- Additional sources such as Marine-Life Data and Analysis Team (MDAT; <http://seamap.env.duke.edu/models/mdat/>) as recommended by NOAA Fisheries and the Bureau of Ocean Energy Management
- New York State Offshore Wind Master Plan (NYSERDA 2017), with corresponding studies/appendices listed below
 - <https://www.nyserdera.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-New-York-State-Overview/NYS-Offshore-Wind-Master-Plan>
 - New York State Offshore Wind Master Plan Birds and Bats Study (NYSERDA 2017) <https://www.nyserdera.ny.gov/All-Programs/Programs/Offshore-Wind/Studies-and-Surveys>
 - New York State Offshore Wind Master Plan Fish and Fisheries Study (NYSERDA 2017) <https://www.nyserdera.ny.gov/All-Programs/Programs/Offshore-Wind/Studies-and-Surveys>
 - New York State Offshore wind Master Plan Marine Mammals and Sea Turtle Study (NYSERDA 2017) <https://www.nyserdera.ny.gov/All-Programs/Programs/Offshore-Wind/Studies-and-Surveys>
 - New York State Offshore Wind Master Plan Sand and Gravel Resources Study (NYSERDA 2017) <https://www.nyserdera.ny.gov/All-Programs/Programs/Offshore-Wind/Studies-and-Surveys>
 - New York State Offshore Wind Master Plan Environmental Sensitivity Analysis (NYSERDA 2017) <https://www.nyserdera.ny.gov/All-Programs/Programs/Offshore-Wind/Studies-and-Surveys>

2 Communications and Collaboration Approach

2.1 Overview and Communication Plan Objectives

This section should provide an overview of the communication plan and objectives and its importance in environmental mitigation.

- GE will engage with both regulatory (including federal, state, and local agencies) and non-regulatory stakeholders (including environmental groups, fishing community, and local communities).
- GE will provide updates to regulatory and non-regulatory stakeholders at all stages of the Project so that interested parties have sufficient opportunity to provide input.
- GE will undertake a detailed regulatory and non-regulatory stakeholder mapping process to promote Project awareness of relevant inputs, and consideration of appropriate information that is applicable to the Project.

2.2 Communication Officers/Positions, Responsibilities, and Contact Information

This section will provide a list of communication officers, their role, and name and contact information. The list should provide stakeholders with an understanding of who should be called for a particular issue or question. It will also include links to the project website so readers know where to find additional information. [Complete Table as Appropriate]

Name/Title	Roles/Responsibilities	Contact Information
<div style="background-color: black; width: 100%; height: 100%;"></div>	<div style="background-color: black; width: 100%; height: 100%;"></div>	<div style="background-color: black; width: 100%; height: 100%;"></div>
<div style="background-color: black; width: 100%; height: 100%;"></div>	<div style="background-color: black; width: 100%; height: 100%;"></div>	<div style="background-color: black; width: 100%; height: 100%;"></div>
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2.3 Identification of Stakeholders

This section should describe the process by which stakeholders relevant to environmental issues will be identified and classified by stakeholder group.

[REDACTED]

2.4 Participation in stakeholder and technical working groups

2.4.1 Communication with E-TWG

This should describe the communication and-collaboration approach with members of the E-TWG and consultations.

- GE is committed to actively participating in and contributing to the E-TWG.
- GE will further dedicate Project specific resources to the E-TWG.
- GE is committed to E-TWG through attending future meetings and workshops.

2.4.2 Communication with other New York State agencies

This should describe communication with New York State agencies during each phase of the project.

- GE is committed to engaging with New York State agencies throughout the Project development process, including Project updates and plans, environmental data collection, baseline data, potential mitigation options, terrestrial archaeology, historic architecture, and permitting. New York State agencies could include:
 - New York Department of Environmental Conservation (NYSDEC)
 - New York Department of State (NYDOS)
 - New York Office of Parks, Recreation, and Historic Preservation (NYPRHP)
 - New York Office of General Services (NYOGS)
 - NYSERDA
 - New York State Department of Public Service (NYDOPS)

2.4.3 Communication with Other Stakeholder and Working Groups

This should describe any relevant participation with other stakeholder groups that would help inform the EMP.

[Redacted]

2.4.4 Communication and collaboration with other developers

This should describe any relevant participation and collaboration with other developers in the offshore space, with a focus on communication and collaboration with adjacent leaseholders. This may include but is not limited to shared research efforts, coordination of survey methods, or standardization of navigational and safety protocols.

[Redacted]

2.5 Communication methods and tools by phase

This section should describe the communication and outreach methods and tools that will be employed for each stakeholder group during each phase of the project.

[Redacted]

Proposed Outreach Method/Tools	Phase*			
	1	2	3	4
Public Informational Meetings	X	X	X	X
Stakeholder Workshops	X	X	X	X
Website Promotion and Social Media	X	X	X	X
Press Releases or Newsletters	X	X	X	X
Regulatory Meetings	X	X	X	X
E-TWG Meetings	X	X	X	X
*Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission				

3. Mitigating Other Research

3.1. Support of Collaborative Research

The project owner will coordinate with the project's research partners to support collaborative research efforts. This includes providing access to project data and resources, and facilitating communication between researchers and project staff.

The project owner will also support the development and implementation of research plans and protocols. This includes providing funding for research activities, and ensuring that research is conducted in a safe and ethical manner. The project owner will also provide ongoing support and guidance to researchers throughout the project.

3.2. Handling Research Requests

The project owner will establish a process for handling research requests. This includes providing a point of contact for researchers, and ensuring that requests are reviewed and responded to in a timely manner. The project owner will also ensure that researchers have access to the information and resources they need to conduct their research.

3.3. Data Availability

The project owner will ensure that research data is made available to researchers in a secure and accessible manner. This includes providing researchers with access to project data, and ensuring that data is stored and managed in a way that protects its integrity and confidentiality.

3.4. Proposed Restrictions

The project owner will implement restrictions on research activities to protect the safety and integrity of the project. These restrictions may include limiting access to certain areas of the project, and prohibiting research activities that could interfere with project operations or pose a risk to the environment.

3.5. Financial Commitment for Third Party Research

The project owner will provide financial support for third party research activities. This includes providing funding for research salaries, travel, and other expenses. The project owner will also ensure that research is conducted in a cost-effective manner.

3 Supporting Other Research

3.1 Support of Collaborative Research

This section should describe how opportunities for developing or investing in collaborative research with the environmental community to collect ecological data will be identified and undertaken. The description must account for the need to coordinate with members of the E-TWG during data gathering and assessment.

[REDACTED]

- [REDACTED]

3.2 Handing/Processing Requests

This section should describe how requests for coordination with third-party supported scientists will be processed - including providing reasonably requested Project data and access to the Project area for independent scientists examining environmental sensitivities and/or the impacts of offshore wind energy development on the environment for the purpose of publication in peer-reviewed journals or other scientifically rigorous products.

[REDACTED]

3.3 Data Availability

This section should describe how data will be made available in accordance with Section 2.2.8 of the RFP

[REDACTED]

3.4 Proposed Restrictions

This section should describe any restrictions on data provision or access that may be required to protect trade secrets or maintain site security.

[REDACTED]

3.5 Financial Commitment for Third Party Research

This section should provide a level of financial commitment, if elected, that will be appropriated to leverage third-party environmental research funding, including federal or State-supported research. Or, if elected, provide the level of

commitment to a general fund for supporting third-party research into potential environmental effects of offshore wind energy development.

[Redacted text block]

3.6 Proposed or Existing Commitments/Collaborations

This section should describe proposed or existing commitments and collaborations with third-party researchers in support of monitoring activities and assessing impacts.

[Redacted text block]

4 Proposed Mitigation of Impacts to Marine Mammals and Sea Turtles

NOAA Fisheries Greater Atlantic Region ESA Section 7 Mapper identifies the upper extent of sea turtles within the Hudson River to be lower Manhattan proximate to Brookfield Place ferry terminal. The upper extent of Atlantic large whales with the Upper New York Bay is the Verrazano Bridge. As such, development of the new nacelle manufacturing facility and the expansion of POC facility infrastructure are not anticipated to impact marine mammals and sea turtles.

This EMP assumes that in-river transport of nacelles from POC will extend only into areas within the HRE. The HRE is an intricate natural harbor associated with both the Hudson River and Raritan River, and which includes both the Port of New York and New Jersey. Specifically, this EMP acknowledges the potential impact associated with vessel strikes during transportation of the nacelles. While it is expected there will be overlap with EMPs developed specifically to support the development of multiple OSW projects, this EMP identifies mitigation and monitoring practices that will likely be considered specific to the transportation of nacelles from the POC. This plan will be revised as needed to ensure consistency with relevant downriver EMPs, as well as federal, state, and local permits required to support the overall development of OSW projects.

4.1 Baseline Characterization

4.1.1 Available Information

Describe existing key literature and datasets that are available for baseline characterization.

[REDACTED]

4.1.2 Data Being Collected

Describe data collected, or will be collected, to support baseline characterization.

[REDACTED]

4.2 Species at Risk

Describe which species the Developer believes to be of greatest concern and why.

[REDACTED]

4.3 Potential Impacts and Mitigation Measures by Phase

The table below should list the potential impacts to marine mammals and sea turtles and proposed mitigation measures. To this end, a description of proposed measures to minimize the impacts of sound on marine mammals and sea turtles during all phases to Project development should be included. In addition, provide a description of the anticipated pre- and post-construction survey techniques to establish an ecological baseline and changes to that baseline within the Project site; the minimum size of exclusion zone intended to be monitored during geophysical surveys and construction; planned approaches to understanding marine mammal and sea turtle presence and absence within development site exclusion zone during site assessment and construction (e.g. a combination of visual monitoring by protected species observers and passive acoustic monitoring, the use of night vision and infra-red cameras during nighttime activities, etc.); proposed temporal constraints on construction activities and geophysical surveys with noise levels that could cause injury to harassment in marine mammals (e.g., seasonal restrictions during periods of heightened vulnerability for priority species; commencing activities during daylight hours and good visibility conditions, dynamic adjustments following the detection of a marine mammal); and proposed equipment and technologies the Developer would use to reduce the amount of sound at the source, if any. [Add potential impacts and proposed mitigation measures as appropriate

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Underwater Noise Impacts from Geophysical Survey	[REDACTED]				
Underwater Noise Impacts from Construction and Installation Activities	[REDACTED]				
Increased Vessel Traffic, and Increased Risk of Spills and Strikes on Marine Mammals and Sea Turtles	[REDACTED]		X	X	

Environmental Mitigation Plan for Port of Coeymans Offshore Wind Nacelle Manufacturing Facility

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
	<div style="background-color: black; height: 10px; width: 100%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 95%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 5%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 100%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 98%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 99%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 97%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 98%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 60%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 100%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 98%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 99%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 97%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 98%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 60%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 100%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 98%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 99%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 97%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 98%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 99%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 97%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 98%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 99%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 97%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 98%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 99%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 97%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 98%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 99%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 97%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 98%; margin-bottom: 5px;"></div> <div style="background-color: black; height: 10px; width: 99%; margin-bottom: 5px;"></div>				
Electromagnetic Fields (EMF), Resulting in Disturbance to	Not Applicable – Placement of electromagnetic cables to support Project not applicable to this EMP.				

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Marine Mammals/Sea Turtles/or Their Prey Resources					
Additional Proposed Mitigations	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <ul style="list-style-type: none"> [Redacted] [Redacted] [Redacted] [Redacted] 	X	X	X	
*Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission					

4.4 Monitor for Potential Impacts During Each Phase

Describe how potential impacts will be monitored on marine mammals and sea turtles during each phase of physical work for the Project (site assessment, construction, operation, and decommissioning) to inform mitigation planning for later phases of the Project as well as for future Projects.

- GE will seek to collaborate with regulatory agencies and stakeholder groups to identify research needs and opportunities. This specifically applies to coordination with the OSW Developer associated with the Project.

4.4.1 Pre/Post Monitoring to Assess and Quantify Impacts and Changes

Describe how changes to environmental resources will be quantified using statistically sound methods.

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

- [Redacted]

4.4.2 Address Data Gaps

Describe how data gaps will be addressed.

[Redacted]

- [Redacted]

4.5 Strategies for Developing Alternate Protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted marine mammals and sea turtles in an alternative location.

[Redacted]



5 Proposed Mitigation of Impacts to Birds and Bats

It is recognized that the development of the [REDACTED] facility and expansion of POC facility infrastructure has the potential to impact birds and bats. Specifically, potential impacts could result from habitat disturbance and possible displacement. It is assumed for purposes of this EMP that transport of wind nacelles down the Hudson River and into the HRE will not impact birds and bats [REDACTED]

5.1 Baseline characterization

Describe how baseline data will be established on the presence of bird and bat assemblages, temporal and spatial use of the site by key species within the area of the proposed Project.

5.1.1 Available information

Describe key existing literature and datasets that are available for baseline characterization.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[https://www.fishbase.org/](#)
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
<https://www.governor.ny.gov/all-programs/projects/offshore-wind/offshore-wind-in-new-york-state-overview/nys-offshore-wind-master-plan>
[REDACTED]
[REDACTED]
<https://www.nj.gov/dep/air/dep-air-wind-report.html>
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

5.1.2 Data collected

Describe data collected, or will be collected, to support baseline characterization.

- [REDACTED]

5.2 Species at risk

Describe which species the Developer believes to be of greatest concern and why.

[REDACTED]

5.3 Potential impacts/risks and mitigation measures by Project stage

The table below should list the potential impacts and mitigation measures to understand and minimize the Project's risk to birds and bats. At a minimum this should include the steps the Developer will pursue to minimize risk to birds and bats (e.g., lighting), and identification of technological approaches to assess impacts or any Proposals for other research or mitigations relating to birds or bats planned or under consideration at this time. [Add impacts and mitigation measures as appropriate]

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Collision risk to marine birds and bats	<p>Not applicable to activities covered by this EMP.</p> <p>[REDACTED]</p>				
Impacts from Accidental Oil Spills from Project Related Vessels or Structures	<ul style="list-style-type: none"> [REDACTED] 	X	X	X	X
Habitat impacts, including disturbance and displacement	<p>Siting and construction of facilities and warehouses associated with</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>		X	X	X

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
	<p>[REDACTED]</p> <ul style="list-style-type: none"> [REDACTED] 				

*Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission

5.4 Monitor for impacts during each phase

Describe how potential impacts will be monitored on birds and bats during each phase of physical work for the Project (site assessment, construction, operation, and decommissioning) to inform mitigation planning for later phases of the Project as well as for future Projects.

5.4.1 Pre/Post monitoring to assess and quantify changes

Describe how changes to environmental resources will be quantified using statistically sound methods.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

5.4.2 Address data gaps

Describe how data gaps will be addressed.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[Redacted]

5.5 Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted birds and bats in an alternative location.

[Redacted]

6 Proposed Mitigation of Impacts to Fish, Invertebrates and their Habitats

6.1 Baseline characterization

Describe what is known about the proposed site in terms fish and invertebrate assemblage, and temporal and spatial variations in fish, invertebrates, and their habitats at the proposed site. The use of collaborative monitoring models with the fishing community is encouraged to develop trusted baseline data.

6.1.1 Available information

Describe key existing literature and datasets that are available for baseline characterization.

- Public data sources are suitable for characterizing benthic habitat and fisheries resources in the Project area, including:
 - The evaluation of NYSERDA’s Master Plan Fish and Fisheries Study (2017; Appendix J).
 - Estuarine Living Marine Resource database (NOAA 2000) provides descriptions of spatial and temporal distributions of species (by life stage) in Hudson River/Raritan Bay and the Great South Bay.
 - NYSDEC Atlantic Sturgeon Monitoring in Hudson River Region <https://www.dec.ny.gov/animals/109120.html>
 - NOAA NMFS Biological Assessment of Shortnose Sturgeon (*Acipenser brevirostrum*).
 - NYSDEC Environmental Resource Mapper, available at <https://www.dec.ny.gov/animals/38801.html>
 - NOAA Fisheries EFH Mapper, available at <https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper>.

6.1.2 Data being collected

Describe data collected, or will be collected, to support baseline characterization.

- The POC has obtained approval under the New York State Environmental Quality Review Act (SEQRA) and an individual USACE permit for the expansion of the port to support the OSW industry. Through that process, data was collected and presented to the stakeholders to satisfy federal and state regulatory requirements. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

6.2 Species at risk

Describe which species the Developer believes to be of greatest concern and why.

[REDACTED]

6.3 Potential impacts/risks and mitigation measures by Project stage

The table below should list the potential impacts to fish, invertebrates, and their habitats and proposed mitigation measures. To this end, this section should describe how the Developers will minimize risk to fish, invertebrates and their habitats (e.g., foundation type, scour protection, cable shielding for electromagnetic fields, construction windows, siltation/turbidity controls, use of dynamic-positioning vessels and jet plow embedment).

Environmental Mitigation Plan for Port of Coeymans Offshore Wind Nacelle Manufacturing Facility

Potential Impacts	Proposed Mitigation Measures	Phase*			
		1	2	3	4
Micro-siting conflicts with habitats and fishery resources	[REDACTED]	X	X	X	
Exposure to Underwater Noise	[REDACTED]		X		
Increased Suspended Sediment Concentration and Impacts to Water Quality	[REDACTED]		X	X	
Exposure to Accidental Spills, Pollution, or Trash from Project Related Activities	[REDACTED]	X	X	X	X
*Phase: 1: Survey/Design; 2: Construction; 3: Operation; 4: Decommission					

6.4 Monitor for Impacts During Each Phase

Describe how potential impacts will be monitored on these types of fish and invertebrates during each phase of physical work for the Project (site assessment, construction, operation, and decommissioning) to inform mitigation planning for later phases of the Project as well as for future Projects.

6.4.1 Pre/Post Monitoring to Assess and Quantify Changes

Describe how changes to environmental resources will be quantified using statistically sound methods.

- [Redacted]

6.4.2 Addressing data gaps

Describe how data gaps will be addressed.

- [Redacted]

6.5 Strategies for developing alternate protocols

Describe the process for determining when mitigation strategies are insufficient and under what conditions they might elect to rehabilitate or restore impacted fisheries in an alternative location or when the provision of compensation of some form may be appropriate.

- [Redacted]

7 Considerations for Subsea and Overland Cables

This section is not applicable to activities covered under this EMP.

8 Additional Considerations

8.1 Additional Mitigation Strategies and EMP Refinement

This section should describe any additional mitigation strategies not otherwise described herein that would improve the Plan and reduce impacts on wildlife. In addition, describe how the EMP will be updated and refined based on additional information and stakeholder feedback.

[Redacted text block]

8.2 Process for updating the EMP

This section should describe how feedback from environmental stakeholders, E-TWG, and other agencies and working groups will be incorporated and updated in the EMP.

[Redacted text block]

9 Project Decommissioning

Given the scope of the activities covered under this RFP, project decommissioning is not expected to occur specific to (1) construction of the manufacturing/warehouse facility, and (2) expansion of the POC. If nacelle manufacturing was no longer required at some point in the future, then this developed infrastructure is assumed to be repurposed to support other industries.

9.1 Potential impacts on marine wildlife, birds, bats, and fisheries

This section should describe potential impacts to marine mammals, sea turtles, birds, bats, and fisheries and habitats from decommissioning the project, based on available information and relevant experience (if any).

[REDACTED]

[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
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