

Appendix M. Seascape, Landscape, and Visual Impact Assessment

M.1. Introduction

This appendix describes the SLVIA methodology and key findings that BOEM used to identify the potential impacts of offshore wind structures (WTGs and OSS) on scenic and visual resources within the geographic analysis area. This SLVIA methodology applies to any offshore wind energy development proposed for the OCS and incorporates by reference the detailed description of the methodology described in the *Assessment of Seascape, Landscape, and Visual Impacts of Offshore Wind Energy Developments on the Outer Continental Shelf of the United States* (BOEM 2021). Section M.2, *Method of Analysis*, describes the specific methodology used to apply the SLVIA methodology to the Ocean Wind 1 COP and Section M.3, *Results*, summarizes the wind farm distances, FOVs, noticeable elements, visual contrasts, scale of change, and prominence that contributed to the determination of impact levels for each KOP under the Proposed Action and each of the action alternatives that include modifications to WTG array layouts (Alternatives B-1, B-2, C-1, C-2, and D). The Project's incremental contribution to cumulative impacts of the action alternatives in combination with other planned offshore wind projects is also assessed. An overview map of scenic resources present in the geographic analysis area is included as Attachment M-1, *Scenic Resources Overview Map*. Visual simulations of the Proposed Action alone, other planned offshore wind projects without the Proposed Action, and other offshore wind projects in combination with the Proposed Action are included in Attachment M-2, *Cumulative Visual Simulations*. Visual simulations of Alternatives B-1, B-2, and C-1 are included in Attachment M-3, *Visual Simulations of Action Alternatives*. Nighttime visual simulations are included as Attachment M-4, *Nighttime Visual Simulations*.

M.2. Method of Analysis

The SLVIA has two separate but linked parts: seascape, open ocean, and landscape impact assessment (SLIA) and VIA. SLIA analyzes and evaluates impacts on both the physical elements and features that make up a landscape, seascape, or open ocean; and the aesthetic, perceptual, and experiential aspects of the landscape, seascape, or open ocean that make it distinctive. These impacts affect the “feel,” “character,” or “sense of place” of an area of landscape, seascape, or open ocean, rather than the composition of a view from a particular place. In SLIA, the impact receptors (the entities that are potentially affected by the proposed Project) are the seascape/open ocean/landscape itself and its components, both its physical features and its distinctive character.

VIA analyzes and evaluates the impacts on people of adding the proposed development to views from selected viewpoints. VIA evaluates the change to the composition of the view itself and assesses how the people who are likely to be at that viewpoint may be affected by the change to the view. Enjoyment of a particular view is dependent on the viewer and, in VIA, the impact receptors are people. The inclusion of both SLIA and VIA in the BOEM SLVIA methodology is consistent with NEPA's objective of providing Americans with aesthetically and culturally pleasing surroundings and its requirement to consider all potentially significant impacts of development.

The magnitude of effect in a seascape, open ocean, landscape, or view depends on the nature, scale, prominence, and visual contrast of the change and its experiential duration. The SLVIA offshore geographic analysis area consists of the extent of the zone of theoretical visibility and zones of visual influence (COP Volume III, Appendix L; Ocean Wind 2023), as follows:

- Offshore turbine array area where the WTGs and OSS would be located plus a 40-mile (64.4-kilometer) radius area. This distance is the maximum extent within which a seascape, landscape, or visual effect could occur, given visibility of the maximum height of the WTG rotor (906 feet [276.1 meters]).

The OSS (maximum height of 296 feet [90.2 meters]) would potentially be visible to a distance of 23.8 miles (38.3 kilometers).

WTG visibility would be variable through the day depending on many factors. View angle, sun angle, and atmospheric conditions would affect the WTG visibility. Visual contrast of WTGs would vary throughout the day depending on the visual character of the horizon's backdrop and whether the WTGs are backlit, side-lit, or front-lit. If less visual contrast is apparent in the morning hours, then it is likely that the visual contrast may be more pronounced in the afternoon. The inverse is possible, as well. These effects are also influenced by varying atmospheric conditions, direction of view, distance between the viewer and the WTGs, and elevation of the viewer.

At closer distances, approximately 12 miles or closer, the form of the WTG may be the dominant visual element creating the visual contrast regardless of color. At greater distances, color may become the dominant visual element creating visual contrast under certain visual conditions that gives visual definition to the WTG's form and line.

As the elevation of the viewer increases, the lesser the effect EC has on the visible height of individual WTGs.

While the East Coast shoreline has a prevailing eastward viewing direction, localized views may vary from southwest to north-northeast. All cardinal directions are conceivable when viewing from a water vessel while at sea. When viewing from onshore toward a northerly direction and scanning to the south, the color of the horizon backdrop will often vary. Variation will continue as the sun arcs across the sky from sunrise to sunset. Depending on sun angle, the backdrop sky color may have various intensities of white to gray and sky blue to pale blue to dark blue-gray. Partly cloudy to overcast conditions will also influence the color make-up of the horizon's backdrop. The sunrise and sunset have varying degrees of light blue to dark blue, light and dark purples intermixed with oranges, yellows, and reds. Partly cloudy skies may increase the remarkable color effects during the sunset and sunrise periods of the day.

When placing WTGs offshore, the visual interplay and contrasting elements in form, line, color, and texture may vary with the ever-changing character of the backdrop. Front-lit WTGs may have strong color contrast against a darker gray sky, giving definition to the WTG vertical form and line contrast to the ocean's horizontal character and the line where the sea meets sky, or visually dissipate against a whiter backdrop created by high levels of evaporative atmospheric moisture during clear sunny days. Partly cloudy skies may create varying degrees of sunlight reflecting off the white color wind turbines, placing some WTGs in the shadow and making them appear darker gray and less conspicuous while highlighting others with a bright white color contrast. The level of noticeability would be directly proportional to the degree of visual contrast and scale of change between the WTGs and the corresponding backdrop.

These variations through the course of the day may result in periods of moderate to major visual effect while at other times of day would have minor or negligible effect.

The onshore geographic analysis area includes landfalls, buried onshore export cables, onshore substations, and transmission connections to the electric grid. The visual impacts of onshore components are assessed in Section 3.20, *Scenic and Visual Resources*.

The SLVIA methodology and parameters assessed consider local stakeholders’ identity, culture, values, and issues and the understanding of baseline maritime conditions. Project activities for all stages of the Project life cycle (construction and installation, O&M, and decommissioning) are assessed against the environmental baseline to identify the potential interactions between the Project and the seascape, landscape, and viewers. Potential impacts are assessed to determine an impact level consistent with the definitions in Table M-1.

Table M-1 Definitions of Potential Adverse Impact Levels

Impact Level	Historic Properties under Section 106 of the NHPA	Visual Resources
Negligible	No historic properties affected, as defined at 36 CFR 800.4(d)(1).	<p>SLIA: Very little or no effect on seascape/landscape unit character, features, elements, or key qualities either because unit lacks distinctive character, features, elements, or key qualities; values for these are low; or Project visibility would be minimal.</p> <p>VIA: Very little or no effect on viewer experiences because Project visibility/contrast/magnitude of change are minimal, or view receptor sensitivity/susceptibility/value is minimal.</p>
Minor	No adverse effects on historic properties could occur, as defined at 36 CFR 800.5(b).	<p>SLIA: The Project would introduce features that may have low to medium levels of visual prominence within the geographic area of an ocean/seascape/landscape character unit. The Project features may introduce a visual character that is somewhat inconsistent with the character of the unit, which may have minor to medium negative effects on the unit’s features, elements, or key qualities, but the unit’s features, elements, or key qualities have low susceptibility or value.</p> <p>SLIA: The Project would introduce features that may have low to medium levels of visual prominence within the geographic area of an ocean/seascape/landscape character unit. The Project features may introduce a visual character that is somewhat inconsistent with the character of the unit, which may have minor to medium negative effects on the unit’s features, elements, or key qualities, but the unit’s features, elements, or key qualities have low susceptibility or value.</p> <p>VIA: The visibility of the Project would introduce a small but noticeable to medium level of change to the view’s character, have a low to medium level of visual prominence that attracts but may or may not hold the viewer’s attention, and have a small to medium effect on the viewer’s experience. The viewer receptor sensitivity/susceptibility/value is low. If the value, susceptibility, and viewer concern for change are medium or high, the nature of the sensitivity is evaluated to determine if elevating the impact to the next level is justified. For instance, a KOP with a low magnitude of change but a high level of viewer concern (combination of susceptibility/value) may justify adjusting to a moderate level of impact.</p>

Impact Level	Historic Properties under Section 106 of the NHPA	Visual Resources
Moderate	<p>Adverse effects on historic properties as defined at 36 CFR 800.5(a)(1) could occur but would be avoided or minimized using a less-impactful scenario contemplated under the PDE.</p>	<p>SLIA: The Project would introduce features that would have medium to large levels of visual prominence within the geographic area of an ocean/seascape/landscape character unit. The Project would introduce a visual character that is inconsistent with the character of the unit, which may have a moderate negative effect on the unit's features, elements, or the key qualities. In areas affected by large magnitudes of change, the unit's features, elements, or key qualities have low susceptibility or value.</p> <p>VIA: The visibility of the Project would introduce a moderate to large level of change to the view's character, may have a moderate to large levels of visual prominence that attracts and holds but may or may not dominate the viewer's attention, and has a moderate effect on the viewer's visual experience. The viewer receptor sensitivity/susceptibility/value is medium to low. Moderate impacts are typically associated with medium viewer receptor sensitivity (combination of susceptibility/value) in areas where the view's character has medium levels of change, or low viewer receptor sensitivity (combination of susceptibility/value) in areas where the view's character has large changes. If the value, susceptibility, and viewer concern for change is high, the nature of the sensitivity is evaluated to determine if elevating the impact to the next level is justified.</p>
Major	<p>Adverse effects on historic properties as defined at 36 CFR 800.5(a)(1) could occur; at least some would require mitigation to resolve.</p>	<p>SLIA: The Project would introduce features that would have dominant levels of visual prominence within the geographic area of an ocean/seascape/landscape character unit. The Project would introduce a visual character that is inconsistent with the character of the unit, which may have a major negative effect on the unit's features, elements, or key qualities. The concern for change (combination of susceptibility/value) to the character unit is high.</p> <p>VIA: The visibility of the Project would introduce a major level of character change to the view; attract, hold, and dominate the viewer's attention; and have a moderate to major effect on the viewer's visual experience. The viewer receptor sensitivity/susceptibility/value is medium to high. If the magnitude of change to the view's character is medium but the susceptibility or value at the KOP is high, the nature of the sensitivity is evaluated to determine if elevating the impact to major is justified. If the sensitivity (combination of susceptibility/value) at the KOP is low in an area where the magnitude of change is large, the nature of the sensitivity is evaluated to determine if lowering the impact to moderate is justified.</p>

M.3. Results

M.3.1 Proposed Action

Atmospheric conditions offshore and near the shoreline limit views more than the typically drier-air conditions in inland areas. Visual simulations from representative viewpoints included as Appendix D to the *Ocean Wind Visual Impact Assessment Report* (COP Volume III, Appendix L; Ocean Wind 2023) indicate that daytime and nighttime visibility of WTGs and OSS would be noticeable to the casual observer from beach viewpoints. Distances to the Proposed Action WTG and OSS array would range from:

- 28.1 miles (45.2 kilometers) from KOP-3 (Bay View Park) on the northern extent of the geographic analysis area;
- 15.3 miles (24.6 kilometers) from KOP-12 and KOP-13 (Atlantic City Beachfront), which is the closest KOP to the front edge of the WTG array; and
- 25.9 miles (41.7 kilometers) from KOP-26 (Wildwood Crest Fishing Pier) on the southern extent of the geographic analysis area.

The noticeable daytime and nighttime elements of the Project’s WTGs and substations and their viewshed distances are listed in Table M-2. Each WTG would have two L-864 flashing red obstruction lights on the top of the nacelle, one of which is required to be lit (BOEM 2021). WTGs would have additional intermediate lighting on the tower utilizing low-intensity red flashing (L-810) obstruction lighting (see Section 2.1.1.2, *Offshore Activities and Facilities*). Line-of-sight calculations for onshore viewers (5-foot [1.5-meter] eye level) are based on intervening EC screening (7.98 inches [20.3 centimeters] height per mile). Heights of WTG and substation components are stated relative to MLLW and highest astronomical tide.

Table M-3 and Table M-4 indicate the Proposed Action’s effects based on horizontal FOV and vertical FOV, respectively, defined as the extent of the observable landscape seen at any given moment, usually measured in degrees (BOEM 2021). The horizontal FOV for each KOP is listed in Appendix D to COP Volume III, Appendix L (Ocean Wind 2023). FOVs are valid and reliable indicators of the magnitude of view occupation by Proposed Action facilities. Typical human perception extends to 124° in the horizontal axis and 55° in the vertical axis. The nearest shoreline viewers would be 15.3 miles (25.9 kilometers) from the Wind Farm Area. EC, at this distance, reduces the observable height above the horizon of the nearest WTG from 906 feet (276.1 meters) MLLW to 801 feet (244 meters), resulting in occupation of 0.6° and 1 percent of the vertical view. WTGs would further diminish in perceived size with distance and EC.

Table M-2 Heights of Noticeable¹ 12-MW WTG Elements and Substations and Visible Distances²

Noticeable Element	Height in Feet (meters)	Visible Distance ² in Miles (kilometers)
Rotor Blade Tip	906 (276) MLLW	0–39.6 (63.7)
Navigation Light	531 (162) MLLW	0–31.0 (49.9)
Nacelle	521 (159) MLLW	0–30.7 (49.4)
Hub	512 (156) MLLW	0–30.5 (49.1)
OSS	296 (90) MLLW	0–23.8 (38.3)
Mid-tower Light	256 (78) MLLW	0–22.4 (36.0)
Yellow Tower Base Color	50 (15) HAT	0–11.4 (18.3)

¹ Perception of Project elements, from 5.5 feet (1.7 meters) human eye level while standing at mean sea level, involves static distance-related sizes, forms, lines, colors, and textures; variable daytime lighting conditions; variable nighttime light conditions; and variable meteorological conditions.

² Based on intervening EC and clear-day conditions.

HAT = highest astronomical tide

Table M-3 Horizontal FOV Occupied by the Proposed Action

Noticeable Element	Width miles (kilometers)	Distance miles (kilometers)	Horizontal FOV	Human FOV	Percent of FOV
Wind Farm	11.8 (19.0)	15.3 (25.9)	37.6°	124°	30%

Table M-4 Vertical FOV Occupied by the Proposed Action

Noticeable Element	Height feet (meters)	Distance miles (kilometers)	Height Above Horizon ¹ feet (meters)	Vertical FOV	Human FOV	Percent of FOV
Rotor Blade Tip	906 feet (276.1) MLLW	15.3 (25.9)	801 (244)	0.6°	55°	1%

¹ Based on intervening EC and clear-day conditions.

Table M-5 lists the wind farm’s distances, horizontal FOVs, noticeable features based on their heights and EC, and visual contrasts. The analysis considers the introduction of WTGs and OSS to an open ocean baseline. The scale, size, contrast, and prominence of change focuses on the:

- Arrangement of WTGs and OSS in the view;
- Horizontal FOV and vertical FOV scale of the wind farm array, based on WTG and OSS size and number;
- Position of the array in the open ocean;
- Position of the array in the view; and
- Turbine array’s distance from the viewer.

Visibility, character-changing effects, and visual contrasts reduce steadily with distance from the observation point. Visibility, character-changing effects, scale, prominence, and visual contrasts increase with elevated observer position in comparison with the wind farm. Distance and observer elevation considerations are informed by the VIA simulations (Appendix D to COP Volume III, Appendix L; Ocean Wind 2023), EC calculations, horizontal FOV, and vertical FOV in undeveloped open ocean. The wind farm and nearest WTGs would be:

- Unavoidably dominant features in the view between 0 and 5 miles (0–8 kilometers) distance;
- Strongly pervasive features between 5 and 12 miles (8–19.3 kilometers) distance;
- Clearly visible features between 12 and 28 miles (19.3–45.1 kilometers) distance;
- Low on the horizon, but persistent features in the view between 28 and 31 miles (45.1–49.9 kilometers) distance;
- Intermittently noticed features between 31 and 39.6 miles (49.9–63.7 kilometers) distance; and
- Below the horizon beyond 39.6 miles (63.7 kilometers) distance.

Visual contrast determinations involve comparisons of characteristics of the seascape, open ocean, and landscape before and after Project implementation. The range of potential contrasts includes strong, moderate, weak, and none (BOEM 2021). The strongest daytime contrasts would result from tranquil and flat seas combined with sunlit WTG towers, nacelles, flickering rotors, and a yellow tower base color against a dark background sky and an undifferentiated foreground. There would be daily variation in WTG color contrast as sun angles change from backlit to front-lit (sunrise to sunset) and the backdrop would vary under different lighting and atmospheric conditions. The weakest daytime contrasts would result from turbulent seas combined with overcast daylight conditions on WTG towers, nacelles, and rotors against an overcast background sky and a foreground modulated by varied landscape elements. The strongest nighttime contrasts would result from dark skies (absent moonlight) combined with navigation lights, activated lighting on the OSS, mid-tower lights, and Project lighting reflections on low clouds and active (non-reflective) surf, and the dark-sky light dome. The weakest nighttime contrasts would result from moonlit, cloudless skies; tranquil (reflective) seas; ADLS activation; and only mid-tower lights.

The seascape character units, landscape character units, and viewer experiences would be affected by the Proposed Action's noticeable features, applicable distances and FOV extents, open views versus view framing and intervening foregrounds, and form, line, color, and texture contrasts, scale of change, and prominence in the characteristic seascape and landscape. Higher impact levels would stem from unique, extensive, and long-term appearance of strongly contrasting, large, and prominent vertical structures in the otherwise horizontal seascape environment; where structures are an unexpected element and viewer experience is of formerly open views of high-sensitivity seascape and landscape; and from high sensitivity view receptors.

Construction involving moving and stationary visual feature contrasts to forms, lines, colors, and textures, scale, and prominence in formerly open seascape may have more effect on viewers than operational and decommissioning impacts, where the viewing context is existing WTGs and substations. Construction impacts would be temporary and include:

- Daytime and nighttime movement of installation vessels, cranes, and other equipment visible in the seascape in and around the Lease Area;
- Dawn, dusk, and nighttime construction lighting on WTGs and OSS;
- Beach, other sensitive land-based, and boat and cruise ship views of WTGs and OSS under construction;
- Laying of the offshore and onshore buried export cables and the connections between offshore and onshore export cables at high-sensitivity Island Beach State Park and Ocean City beach landing sites; and
- Activities along the onshore landfalls, export cable routes, and BL England and Oyster Creek onshore substations.

Operational effects would be similar to those of end-stage construction and would be long term and fully reversible.

Proposed Action impacts on high-sensitivity seascape character would be **major**. The daytime and nighttime (lighting) presence of the WTGs, OSS, and construction and O&M vessel traffic would change perception of this area from natural, undeveloped seascape to a developed wind energy environment characterized by visually dominant WTGs and OSS.

Maintenance activities would cause **minor** effects on seascape character by increased O&M vessel traffic to and from the Wind Farm Area. Increases in these vessel movements would be noticeable to offshore viewers but are unlikely to have a significant effect.

Decommissioning would involve the removal of all offshore structures and is expected to follow the reverse of the construction activity. Decommissioning activities would cause effects similar to those of construction activities.

Viewshed analyses (Appendix A to COP Volume III, Appendix L; Ocean Wind 2023) determined that clear-weather visibility of the WTGs and OSS would occur from 12.5 percent of the land area within the Proposed Action's zone of visual influence. The Proposed Action would be visible along the barrier islands' eastern beaches. The majority of landward visibility (155 square miles) would occur within 15–20 miles of the Proposed Action over inland bays. Visibility would diminish significantly between 30 and 40 miles, contributing 44 square miles to the zone of visual influence. Due to coastal meteorological conditions, Proposed Action visibility in these areas would be noticeably reduced on approximately 3 days out of 4 to 5 days.

Daytime lighting of WTGs is not required. ADLS would reduce nighttime impact levels from **major** to **moderate** or **moderate** to **minor**, due to substantially limited hours of lighting. Residual impacts would result from the presence of continuously flashing lights, sky light dome, and reflections on clouds during those limited hours. Lights of the three OSS, when lit for maintenance, potentially would be visible from beaches and adjoining land and built environment during hours of darkness. The nighttime sky light dome and cloud lighting caused by reflections from the water surface may be seen from distances beyond the 40-mile (64.4-kilometer) geographic analysis area, depending on variable ocean surface and meteorological reflectivity. Onshore substations' nighttime lighting would be visible in their immediate neighborhoods during hours of darkness and similar in magnitude and extent to existing conditions.

Table M-5 Wind Farm Distances, FOVs, Noticeable Elements, Visual Contrasts, Scale of Change, and Prominence

KOP ¹	Distance in miles (kilometers)						Proposed Action FOV Degrees (% of 124°)	Noticeable Elements ² & Impact Level	Contrast, Scale of Change, and Prominence							
	Proposed Action	Alternative B-1	Alternative B-2	Alternative C-1	Alternative C-2	Alternative D			Proposed Action Form	Proposed Action Line	Proposed Action Color	Proposed Action Texture	Proposed Action Scale	Proposed Action Prominence ³	Alternatives B-1, B-2	Alternatives C-1, C-2, D
KOP-1	38.6 (62.1)	38.7 (62.3)	39.9 (64.2)	38.4 (61.8)	39.6 (63.7)	38.6 (62.1)	17° (14%)	R Minor	Weak	Weak	Weak	Weak	Small	2	Same as Proposed Action	Same as Proposed Action
KOP-2	33.4 (53.7)	33.4 (53.7)	34.7 (55.8)	33 (53.1)	34.3 (55.2)	34.3 (55.2)	20° (16%)	R Negligible	Weak	Weak	Weak	Weak	Small	2	Same as Proposed Action	Same as Proposed Action
KOP-3	28.1 (45.2)	28.1 (45.2)	29.5 (47.5)	27.6 (44.4)	28.9 (46.5)	28.9 (46.5)	23° (18%)	R, NL, N, and H Minor	Weak	Weak	Weak	Weak	Small	2	Same as Proposed Action	Same as Proposed Action
KOP-4	28.0 (45.1)	28 (45.1)	29.8 (47.9)	26.5 (42.6)	28.3 (45.5)	28.3 (45.5)	19° (15%)	R, NL, N, and H Minor	Weak	Weak	Weak	Weak	Small	1	Same as Proposed Action	Same as Proposed Action
KOP-5	22.6 (36.4)	22.6 (36.4)	24.2 (38.9)	21.7 (34.9)	23.2 (37.3)	23.2 (37.3)	28° (22%)	R, NL, N, H, and O ¹ Minor	Weak	Weak	Weak	Weak	Small	2	Same as Proposed Action	Same as Proposed Action
KOP-6	21.8 (35.1)	21.9 (35.2)	23.2 (37.3)	20.7 (33.3)	22.4 (36)	22.4 (36)	30° (24%)	R, NL, N, H, O, and M ¹ Minor	Weak	Weak	Weak	Weak	Small	2	Same as Proposed Action	Same as Proposed Action
KOP-7	20.4 (32.8)	20.1 (32.3)	21.2 (34.1)	18.4 (29.6)	20.1 (32.3)	20.2 (32.5)	33° (27%)	R, NL, N, H, O, and M ¹ Minor	Weak	Weak	Weak	Weak	Small	3	Same as Proposed Action	Same as Proposed Action
KOP-8	21.0 (33.8)	21.1 (33.9)	22.7 (36.5)	19.8 (31.9)	21 (33.8)	21 (33.8)	31° (25%)	R, NL, N, H, O, and M ¹ Minor	Weak	Weak	Weak	Weak	Small	1	Same as Proposed Action	Same as Proposed Action
KOP-9	16.8 (27.0)	16.8 (27.0)	17.9 (28.8)	15.3 (24.6)	17.5 (28.2)	17 (27.4)	37° (30%)	R, NL, N, H, O, and M ¹ Moderate	Weak	Moderate	Moderate	Weak	Medium	4	Same as Proposed Action	Same as Proposed Action
KOP-10	16.2 (26.1)	16.3 (26.2)	17.3 (27.8)	14.6 (23.5)	16.5 (26.5)	16.3 (26.2)	39° (31%)	R, NL, N, H, O, and M ¹ Moderate	Weak	Moderate	Moderate	Weak	Medium	4	Same as Proposed Action	Same as Proposed Action
KOP-11	19.7 (31.7)	19.8 (31.9)	21.6 (34.8)	18.9 (30.4)	19.8 (31.9)	19.8 (31.9)	23° (18%)	R, NL, N, H, O, and M ¹ Minor	Weak	Weak	Weak	Weak	Small	2	Same as Proposed Action	Same as Proposed Action
KOP-12	16.0 (25.7)	16 (25.7)	16.8 (27)	14 (22.5)	15.1 (24.3)	15.1 (24.3)	41° (33%)	R, NL, N, H, O, and M ¹ Moderate	Weak	Moderate	Moderate	Weak	Medium	4	Same as Proposed Action	Same as Proposed Action
KOP-13	16.0 (25.7)	16 (25.7)	16.8 (27)	14 (22.5)	15.1 (24.3)	15.1 (24.3)	41° (33%)	R, NL, N, H, O, and M ¹ Minor	Weak	Weak	Weak	Weak	Medium	6	Same as Proposed Action	Same as Proposed Action
KOP-14	15.3 (25.6)	16 (25.7)	16.9 (27.2)	14.1 (22.7)	15.2 (24.5)	15.2 (24.5)	41° (33%)	R, NL, N, H, O, and M ¹ Moderate	Moderate	Moderate	Moderate	Weak	Medium	4	Same as Proposed Action	Same as Proposed Action
KOP-15	15.8 (25.4)	16.7 (26.9)	17.7 (28.5)	14.9 (24.0)	15.8 (25.4)	15.8 (25.4)	1° (.8%)	Unseen Negligible	None	None	None	None	None	0	Same as Proposed Action	Same as Proposed Action
KOP-16	16.0 (25.7)	17 (27.4)	17.9 (28.8)	15.3 (24.6)	16 (25.7)	16 (25.7)	39° (31%)	R, NL, N, H, O, and M ¹ Moderate	Moderate	Moderate	Moderate	Weak	Medium	4	Same as Proposed Action	Same as Proposed Action
KOP-17	18.3 (29.4)	19.3 (31.1)	20.2 (32.5)	18.4 (29.6)	18.3 (29.4)	18.4 (29.6)	31° (25%)	R, NL, N, H, O, and M ¹ Minor	Weak	Weak	Weak	Weak	Medium	3	Same as Proposed Action	Same as Proposed Action
KOP-18	15.4 (24.8)	16.5 (26.5)	17.4 (28.0)	15.4 (24.8)	15.4 (24.8)	15.6 (25.1)	36° (29%)	R, NL, N, H, O, and M ¹ Moderate	Moderate	Weak	Moderate	Weak	Medium	4	Same as Proposed Action	Same as Proposed Action
KOP-19	16.2 (26.1)	17.1 (27.5)	18 (29.0)	16.2 (26.1)	16.2 (26.1)	16.3 (26.2)	34° (27%)	R, NL, N, H, O, and M ¹ Moderate	Moderate	Moderate	Moderate	Weak	Medium	4	Same as Proposed Action	Same as Proposed Action
KOP-20	17.4 (28.0)	18.1 (29.1)	18.9 (30.4)	17.4 (28.0)	17.4 (28.0)	17.4 (28.0)	19° (15%)	R, NL, N, H, O, and M ¹ Negligible	Weak	Weak	Weak	Weak	Small	2	Same as Proposed Action	Same as Proposed Action
KOP-21	17.8 (28.6)	18.5 (29.8)	19.1 (30.7)	17.8 (28.6)	17.8 (28.6)	17.9 (28.8)	29° (23%)	R, NL, N, H, O, and M ¹ Moderate	Moderate	Weak	Moderate	Weak	Medium	4	Same as Proposed Action	Same as Proposed Action
KOP-22	20.9 (33.6)	21.5 (34.6)	22 (35.4)	20.9 (33.6)	20.9 (33.6)	21 (33.8)	25° (20%)	R, NL, N, H, O, and M ¹ Minor	Weak	Weak	Weak	Weak	Small	3	Same as Proposed Action	Same as Proposed Action

KOP ¹	Distance in miles (kilometers)						Proposed Action FOV Degrees (% of 124°)	Noticeable Elements ² & Impact Level	Contrast, Scale of Change, and Prominence							
	Proposed Action	Alternative B-1	Alternative B-2	Alternative C-1	Alternative C-2	Alternative D			Proposed Action Form	Proposed Action Line	Proposed Action Color	Proposed Action Texture	Proposed Action Scale	Proposed Action Prominence ³	Alternatives B-1, B-2	Alternatives C-1, C-2, D
KOP-23	20.9 (33.6)	21.5 (34.6)	22 (35.4)	20.9 (33.6)	20.9 (33.6)	21 (33.8)	25° (20%)	R, NL, N, H, O, and M ¹ Minor	Weak	Weak	Weak	Weak	Small	3	Same as Proposed Action	Same as Proposed Action
KOP-24	24.3 (39.1)	24.8 (39.9)	25.2 (40.5)	24.3 (39.1)	24.3 (39.1)	24.4 (39.3)	22° (18%)	R, NL, N, H, and O ¹ Minor	Weak	Weak	Weak	Weak	Small	3	Same as Proposed Action	Same as Proposed Action
KOP-25	23.6 (38.0)	24.1 (38.8)	24.5 (39.4)	23.6 (38.0)	23.6 (38.0)	23.7 (38.1)	9° (7%)	R, NL, N, H, and O ¹ Minor	Weak	Weak	Weak	Weak	Small	3	Same as Proposed Action	Same as Proposed Action
KOP-26	25.9 (41.7)	26.4 (42.5)	26.7 (43.0)	25.9 (41.7)	25.9 (41.7)	26 (41.8)	20° (16%)	R, NL, N, and H Minor	Weak	Weak	Weak	Weak	Small	3	Same as Proposed Action	Same as Proposed Action
KOP-27	28.4 (45.7)	28.8 (46.3)	29.1 (46.8)	28.4 (45.7)	28.4 (45.7)	28.5 (45.8)	18° (14%)	R, NL, N, and H Minor	Weak	Weak	Weak	Weak	Small	2	Same as Proposed Action	Same as Proposed Action
KOP-28	33.9 (54.5)	34.3 (55.2)	34.6 (55.7)	33.9 (54.5)	33.9 (54.5)	34 (54.7)	23° (18%)	R Minor	Weak	Weak	Weak	Weak	Small	1	Same as Proposed Action	Same as Proposed Action
KOP-29	Sub-station	NA	NA	NA	NA	NA	NA	Minor	Weak	Weak	Weak	Weak	Small	3	Same as Proposed Action	Same as Proposed Action
KOP-30	Sub-station	NA	NA	NA	NA	NA	NA	Minor	Weak	Weak	Weak	Weak	Small	3	Same as Proposed Action	Same as Proposed Action
KOP-31	0-40 (0-64)	0-40 (0-64)	0-40 (0-64)	0-40 (0-64)	0-40 (0-64)	0-40 (0-64)	124° (100%)	R, NL, N, H, O, M, and Y Major	Strong	Strong	Strong	Strong	Large	6	Same as Proposed Action	Same as Proposed Action
KOP-32	0-40 (0-64)	0-40 (0-64)	0-40 (0-64)	0-40 (0-64)	0-40 (0-64)	0-40 (0-64)	124° (100%)	R, NL, N, H, O, M, and Y Major	Strong	Strong	Strong	Strong	Large	6	Same as Proposed Action	Same as Proposed Action

¹ KOP-1 Barnegat Lighthouse; KOP-2 Harvey Cedars Beach Access; KOP-3 Bayview Park; KOP-4 Garden State Parkway; KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit; KOP-6 Great Bay Boulevard Wildlife Management Area; KOP-7 Edwin B. Forsythe National Wildlife Refuge; KOP-8 Absecon Creek Boat Ramp; KOP-9 North Brigantine Natural Area Wildlife Observation Deck; KOP-10 16th Street Park Beachfront; KOP-11 Atlantic City Country Club; KOP-12 Atlantic City Beachfront; KOP-13 Atlantic City Beachfront (Nighttime); KOP-14 Atlantic City Playground Pier; KOP-15 Ventor City, City Hall; KOP-16 Lucy the Elephant National Historic Landmark; KOP-17 Bay Front Historic District, Municipal Beach Park; KOP-18 Ocean City Boardwalk; KOP-19 Corson's Inlet State Park; KOP-20 Sea Isle City Promenade; KOP-21 Avalon Beach Jetty; KOP-22 Stone Harbor Beach; KOP-23 Stone Harbor Beach (nighttime); KOP-24 North Wildwood Boulevard Bridge; KOP-25 Hereford Inlet Lighthouse; KOP-26 Wildwood Crest Fishing Pier; KOP-27 Cape May National Wildlife Refuge; KOP-28 Cape May Lighthouse; KOP-29 BL England Substation Area; KOP-30 Oyster Creek Substation Area; KOP-31 Commercial and Recreational Fishing and Tour Boat Area; KOP-32 Commercial and Cruise Ship Shipping Lanes

² Noticeable elements: R = rotor, NL = navigation light, N = nacelle, H = hub, O = OSS, M = mid-tower light, Y = yellow tower base color

³ WTGs and OSS (onshore) visibility: 0 = Not visible. 1 = Visible only after extended study; otherwise not visible. 2 = Visible when viewing in general direction of the wind farm; otherwise likely to be missed by casual observer. 3 = Visible after brief glance in general direction of the wind farm; unlikely to be missed by casual observer. 4 = Plainly visible; could not be missed by casual observer, but does not strongly attract visual attention or dominate view. 5 = Strongly attracts viewers' attention to the wind farm; moderate to strong contrasts in form, line, color, or texture, luminance, or motion. 6 = Dominates view; strong contrasts in form, line, color, texture, luminance, or motion fill most of the horizontal FOV or vertical FOV (NAEP 2012).

Table M-6 lists the Proposed Action’s noticeable features based on their heights, distances, and EC.

Table M-6 Noticeable Elements and Impacts by Seascape Character Unit, Open Ocean Character Unit, Landscape Character Unit, and KOP for the Proposed Action

Noticeable Elements ¹ Impacts	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
R, NL, N, H, O, M, and Y Major	Open Ocean Character Unit KOP-31 Recreational Fishing, Pleasure, and Tour Boat Area KOP-32 Cruise Ship Shipping Lanes
R, NL, N, H, O, and M Moderate	Seascape and Landscape Character Units: Beachfront and Jetty/Seawall, Boardwalk, Coastal Dune, and Island Community KOP-9 North Brigantine Natural Area Wildlife Observation Deck KOP-10 16th Street Park Beachfront KOP-12 Atlantic City Beachfront—Daytime KOP-14 Atlantic City Playground Pier KOP-16 Lucy the Elephant National Historic Landmark KOP-18 Ocean City Boardwalk KOP-19 Corson’s Inlet State Park KOP-20 Sea Isle City Promenade KOP-21 Avalon Beach Jetty
R, NL, N, H, O, and M Minor	KOP-6 Great Bay Boulevard WMA KOP-7 Edwin B. Forsythe National Wildlife Refuge KOP-8 Absecon Creek Boat Ramp KOP-11 Atlantic City Country Club KOP-13 Atlantic City Beachfront—Nighttime KOP-22 Stone Harbor Beach—Daytime KOP-23 Stone Harbor Beach—Nighttime
R, NL, N, H, and O Minor	Landscape Character Units: Marshland, and Bay/Shoreline KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit KOP-17 Bay Front Historic District, Municipal Beach Park KOP-24 North Wildwood Boulevard Bridge KOP-25 Hereford Inlet Lighthouse
R, NL, N, and H Minor	KOP-3 Bayview Park KOP-4 Garden State Parkway KOP-26 Wildwood Crest Fishing Pier KOP-28 Cape May Lighthouse
R, NL, and N Minor	Landscape Character Units: Mainland and Ridges
R Minor	KOP-1 Barnegat Lighthouse
R Negligible	KOP-2 Harvey Cedars Beach Access KOP-15 Ventor City, City Hall (obscured, not distant) KOP-20 Sea Isle City Promenade KOP-27 Cape May National Wildlife Refuge

¹ R = rotor, NL = navigation light, N = nacelle, H = hub, O = OSS, M = mid-tower light, Y = yellow tower base color
 WMA = Wildlife Management Area

Table M-7 summarizes the Proposed Action’s wind farm distance, percent of FOV occupied by the wind farm, and effects on the seascape units, open ocean unit, landscape units, and KOPs.

Table M-7 Wind Farm Distance Effects by Seascape Character Unit, Open Ocean Character Unit, Landscape Character Unit, and KOP for the Proposed Action

Distance miles (kilometers) Effects	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
0–40.0 (0–64.4) Dominant/Major to Minor Noticeability	Open Ocean Character Unit KOP-31 Recreational Fishing, Pleasure, and Tour Boat Area
5.0–40.0 (8.0–64.4) Dominant/Major to Minor Noticeability	Open Ocean Character Unit KOP-32 Cruise Ship Shipping Lanes
15.3–18.0 (24.6–29.0) Moderate Noticeability	Seascape Character Units: Beachfront and Jetty/Seawall, Boardwalk, Coastal Dune, and Island Community KOP-9 North Brigantine Natural Area Wildlife Observation Deck KOP-10 16th Street Park Beachfront KOP-12 Atlantic City Beachfront—Daytime KOP-13 Atlantic City Beachfront—Nighttime KOP-14 Atlantic City Playground Pier KOP-18 Ocean City Boardwalk KOP-19 Corson’s Inlet State Park KOP-21 Avalon Beach Jetty
18.0–31.0 (29.0–49.9) Minor Noticeability	Landscape Character Units: Marshland, and Bay/Shoreline KOP-3 Bayview Park KOP-4 Garden State Parkway KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit KOP-6 Great Bay Boulevard WMA KOP-7 Edwin B. Forsythe National Wildlife Refuge KOP-8 Absecon Creek Boat Ramp KOP-11 Atlantic City Country Club KOP-16 Lucy the Elephant National Historic Landmark KOP-17 Bay Front Historic District, Municipal Beach Park KOP-22 Stone Harbor Beach—Daytime KOP-23 Stone Harbor Beach—Nighttime KOP-24 North Wildwood Boulevard Bridge KOP-25 Hereford Inlet Lighthouse KOP-26 Wildwood Crest Fishing Pier KOP-27 Cape May National Wildlife Refuge
31.1–40.0 (50.1–64.4) Minor Noticeability	KOP-1 Barnegat Lighthouse (elevated viewpoint) KOP-28 Cape May Lighthouse (elevated viewpoint)

Distance miles (kilometers) Effects	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
31.1–40.0 (50.1–64.4) Minor to Negligible Noticeability	Landscape Character Units: Mainland and Ridges KOP-2 Harvey Cedars Beach Access KOP-15 Ventor City, City Hall (obscured, not distant) KOP-20 Sea Isle City Promenade (obscured, not distant)

WMA = Wildlife Management Area

Table M-8 summarizes the Proposed Action’s wind farm distance, percent of FOV occupied by the wind farm, and effects on the seascape units, landscape units, and KOPs.

Table M-8 Wind Farm Percent of FOV and Effects by Seascape Character Unit, Open Ocean Character Unit, Landscape Character Unit, and KOP for the Proposed Action

Percent (°) of 124° FOV POV¹ Effects	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
100% (124°) to 16% (20°) Dominant/Major to Minor	Open Ocean Character Unit KOP-31 Recreational Fishing, Pleasure, and Tour Boat Area
41% (51°) to 16% (20°) Dominant/Major to Minor	Open Ocean Character Unit KOP-32 Cruise Ship Shipping Lanes
33% (37.6°) to 29% (36°) Moderate	Seascape Character Units: Beachfront and Jetty/Seawall, Boardwalk, Coastal Dune, and Island Community KOP-9 North Brigantine Natural Area Wildlife Observation Deck KOP-10 16th Street Park Beachfront KOP-11 Atlantic City Country Club KOP-12 Atlantic City Beachfront—Daytime KOP-14 Atlantic City Playground Pier KOP-15 Ventor City, City Hall KOP-16 Lucy the Elephant National Historic Landmark KOP-17 Bay Front Historic District, Municipal Beach Park KOP-18 Ocean City Boardwalk KOP-19 Corson’s Inlet State Park KOP-20 Sea Isle City Promenade KOP-21 Avalon Beach Jetty
20% (25°) Minor to Moderate	KOP-13 Atlantic City Beachfront—Nighttime KOP-22 Stone Harbor Beach—Daytime KOP-23 Stone Harbor Beach—Nighttime
28% (35°) to 20% (25°) Minor	Landscape Character Units: Marshland, and Bay/Shoreline KOP-3 Bayview Park KOP-4 Garden State Parkway KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit KOP-6 Great Bay Boulevard WMA KOP-7 Edwin B. Forsythe National Wildlife Refuge KOP-8 Absecon Creek Boat Ramp

Percent (°) of 124° FOV POV ¹ Effects	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
	KOP-24 North Wildwood Boulevard Bridge KOP-25 Hereford Inlet Lighthouse KOP-26 Wildwood Crest Fishing Pier KOP-27 Cape May National Wildlife Refuge
20% (25°) to 16% (20°) Minor to Negligible	Landscape Character Units: Mainland and Ridges KOP-1 Barnegat Lighthouse KOP-2 Harvey Cedars Beach Access KOP-28 Cape May Lighthouse KOP-29 BL England Substation Area KOP-30 Oyster Creek Substation Area

¹ Percent of view
 WMA = Wildlife Management Area

Foreground influence assessments, involving the presence of intervening or framing elements and their influence on effects of Project characteristics, are based on each KOP’s locale photography and visual simulations (Appendix D to COP Volume III, Appendix L; Ocean Wind 2023) and summarized in Table M-9.

Table M-9 Foreground View Framing and Intervening Elements for the Proposed Action

Foreground Element(s) Influence	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
Open Ocean Negligible Influence	Open Ocean Character Unit KOP-31 Recreational Fishing, Pleasure, and Tour Boat Area KOP-32 Cruise Ship Shipping Lanes
Beach, Dunes, and Ocean Minor Influence	Seascape Character Units: Beachfront and Jetty/Seawall, Boardwalk, and Coastal Dune KOP-2 Harvey Cedars Beach Access KOP-3 Bayview Park KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit KOP-10 16th Street Park Beachfront KOP-12 Atlantic City Beachfront—Daytime KOP-13 Atlantic City Beachfront—Nighttime KOP-14 Atlantic City Playground Pier KOP-18 Ocean City Boardwalk KOP-19 Corson’s Inlet State Park KOP-21 Avalon Beach Jetty KOP-22 Stone Harbor Beach—Daytime KOP-23 Stone Harbor Beach—Nighttime KOP-26 Wildwood Crest Fishing Pier

Foreground Element(s) Influence	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
Buildings, Vegetation, and Topography Moderate to Dominant Influence	Landscape Character Units: Island Community, Marshland, Bay/Shoreline, Mainland, and Ridges KOP-1 Barnegat Lighthouse KOP-2 Harvey Cedars Beach Access KOP-3 Bayview Park KOP-4 Garden State Parkway KOP-6 Great Bay Boulevard WMA KOP-7 Edwin B. Forsythe National Wildlife Refuge KOP-8 Absecon Creek Boat Ramp KOP-9 North Brigantine Natural Area Wildlife Observation Deck KOP-11 Atlantic City Country Club KOP-15 Ventor City, City Hall KOP-16 Lucy the Elephant National Historic Landmark KOP-17 Bay Front Historic District, Municipal Beach Park KOP-20 Sea Isle City Promenade KOP-24 North Wildwood Boulevard Bridge KOP-25 Hereford Inlet Lighthouse KOP-27 Cape May National Wildlife Refuge KOP-28 Cape May Lighthouse

WMA = Wildlife Management Area

Proposed Action contrasts in the characteristic seascape and landscape, as perceived in views from each KOP, are based on visual simulations (Appendix D to COP Volume III, Appendix L; Ocean Wind 2023). Seascape unit view contrasts are estimated based on similar open view conditions in ocean environments. Landscape and seascape compatibility and photography conditions for each viewpoint are presented in COP Volume III, Appendix L, Table 9.1 (Ocean Wind 2023). The COP landscape and seascape evaluation scale ranges from faint, apparent, conspicuous, and prominent to dominant. No onshore viewpoints would result in either prominent or dominant conditions. Offshore potential viewpoints' evaluations range from faint to dominant. Visual contrast determinations involve comparisons of characteristics of the seascape and landscape before and after Proposed Action implementation. The range of potential contrasts includes strong, moderate, weak, and none. The strongest daytime contrasts would result from tranquil and flat seas combined with sunlit WTG towers, nacelles, flickering rotors, and the yellow tower 50-foot (15.2-meter) base color against a dark background sky and an undifferentiated foreground. The weakest daytime contrasts would result from turbulent seas combined with overcast daylight conditions on WTG towers, nacelles, and rotors against an overcast background sky and a foreground modulated by varied landscape elements. The strongest nighttime contrasts would result from dark skies (absent moonlight) combined with navigation lights, activated lighting on the OSS, mid-tower lights, and Project lighting reflections on low clouds and active (non-reflective) surf, and the dark-sky light dome. The weakest nighttime contrasts would result from moonlit, cloudless skies, tranquil (reflective) seas, ADLS activation, and only mid-tower lights.

Photographic comparisons of characteristics of the seascape's and landscape's existing conditions and Proposed Action implementation are included in Appendix D to COP Volume III, Appendix L (Ocean

Wind 2023) for each of the KOPs in the following summary tables. Visual contrast determinations are listed in Table M-10.

Table M-10 Visual Contrasts to Seascape, Open Ocean, Landscape, and KOPs for the Proposed Action

Contrast Rating Effects	Seascape, Open Ocean, Landscape, and Offshore and Onshore Key Observation Points
Strong Contrasts Major	Open Ocean: KOP-31 Recreational Fishing, Pleasure, and Tour Boat Area KOP-32 Cruise Ship Shipping Lanes
Moderate Contrasts Moderate	Seascape KOP-9 North Brigantine Natural Area Wildlife Observation Deck KOP-10 16th Street Park Beachfront KOP-12 Atlantic City Beachfront—Daytime KOP-14 Atlantic City Playground Pier KOP-18 Ocean City Boardwalk KOP-19 Corson’s Inlet State Park KOP-21 Avalon Beach Jetty KOP-22 Stone Harbor Beach—Daytime KOP-23 Stone Harbor Beach—Nighttime KOP-16 Lucy the Elephant National Historic Landmark
Weak Contrasts Minor	KOP-1 Barnegat Lighthouse KOP-3 Bayview Park KOP-4 Garden State Parkway KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit KOP-6 Great Bay Boulevard WMA KOP-7 Edwin B. Forsythe National Wildlife Refuge KOP-8 Absecon Creek Boat Ramp KOP-11 Atlantic City Country Club KOP-13 Atlantic City Beachfront—Nighttime KOP-17 Bay Front Historic District, Municipal Beach Park KOP-24 North Wildwood Boulevard Bridge KOP-25 Hereford Inlet Lighthouse KOP-26 Wildwood Crest Fishing Pier KOP-28 Cape May Lighthouse KOP-29 BL England Substation Area KOP-30 Oyster Creek Substation Area
None to very weak Negligible	KOP-2 Harvey Cedars Beach Access KOP-15 Ventor City, City Hall KOP-20 Sea Isle City Promenade KOP-27 Cape May National Wildlife Refuge

WMA = Wildlife Management Area

Table M-11 summarizes Proposed Action impacts on the seascape character units, open ocean character unit, and landscape character units throughout the geographic analysis area. The seascape, open ocean, and landscape criteria listed in Table M-1 and consideration of the preceding assessments would result in impact levels for character units as shown in Table M-11.

Table M-11 Proposed Action Impact on Seascape Character, Open Ocean Character, and Landscape Character

Level of Impact	Seascape Character Units, Open Ocean Character Unit, and Landscape Character Units
Major	SLIA: Open Ocean Character Unit
Moderate	SLIA: Seascape Character Units and Landscape Character Units: Beachfront and Jetty/Seawall, Boardwalk, Coastal Dune, and Island Community
Minor	SLIA: Landscape Character Units: Bay/Shoreline, Island, Mainland, Marshland, and Ridges
Negligible	SLIA: Landscape Character Units: Island, Mainland, and Ridges

Table M-12 summarizes Proposed Action impacts on viewer experience (KOP locations) throughout the geographic analysis area. The viewer experience criteria listed in Table M-1 and consideration of the preceding assessments would result in impact levels for KOPs as shown in Table M-12.

Table M-12 Impact Levels on Viewer Experience for the Proposed Action

Impact Level	Offshore and Onshore Key Observation Points
Major	VIA: KOP-31 Recreational Fishing, Pleasure, and Tour Boat Area KOP-32 Cruise Ship Shipping Lanes
Moderate	VIA: KOP-7 Edwin B. Forsythe National Wildlife Refuge KOP-9 North Brigantine Natural Area Wildlife Observation Deck KOP-10 16th Street Park Beachfront KOP-12 Atlantic City Beachfront—Daytime KOP-14 Atlantic City Playground Pier KOP-16 Lucy the Elephant National Historic Landmark KOP-18 Ocean City Boardwalk KOP-19 Corson’s Inlet State Park KOP-21 Avalon Beach Jetty KOP-22 Stone Harbor Beach—Daytime KOP-23 Stone Harbor Beach—Nighttime

Impact Level	Offshore and Onshore Key Observation Points
Minor	VIA: KOP-1 Barnegat Lighthouse KOP-3 Bayview Park KOP-4 Garden State Parkway KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit KOP-6 Great Bay Boulevard WMA KOP-8 Absecon Creek Boat Ramp KOP-11 Atlantic City Country Club KOP-13 Atlantic City Beachfront—Nighttime KOP-17 Bay Front Historic District, Municipal Beach Park KOP-24 North Wildwood Boulevard Bridge KOP-25 Hereford Inlet Lighthouse KOP-26 Wildwood Crest Fishing Pier KOP-28 Cape May Lighthouse KOP-29 BL England Substation Area KOP-30 Oyster Creek Substation Area
Negligible	VIA: KOP-2 Harvey Cedars Beach Access KOP-15 Ventnor City, City Hall KOP-20 Sea Isle City Promenade KOP-27 Cape May National Wildlife Refuge

WMA = Wildlife Management Area

NEPA requires consideration of other reasonably foreseeable activities in the Project’s viewshed and the Project’s incremental effects on seascape character, open ocean character, landscape character, and viewer experience. These effects include direct physical effects on the seascape, open ocean, and landscape or changes to the distinct character of the seascape, open ocean, and landscape.

Effects on seascape character, open ocean character, and landscape character can occur in the following conditions (BOEM 2021, Chapter 8):

- Multi-project WTGs and OSS visible within or from the open ocean character unit as overlapping or adjacent features and elements
- Multi-project WTGs and OSS visible from seascape character units as overlapping or adjacent features and elements
- Multi-project WTGs and OSS visible from landscape character units as overlapping or adjacent features and elements

Effects on viewer experience can occur in the following conditions (BOEM 2021 Chapter 8):

- Multi-project WTGs and OSS visible as overlapping features and elements
- Multi-project WTGs and OSS visible as adjacent features and elements
- Multi-project WTGs and OSS visible as viewers move through the seascape, open ocean, and landscape

Attachment M-2 presents simulations of the incremental effects of the Project in the context of other planned wind farms.

Consideration of effects of other planned wind farms on seascape character, open ocean character, and landscape character is listed in Table M-13.

Consideration of effects on viewer experience of other planned wind farms is listed in Table M-14.

Consideration of effects on seascape character, open ocean character, and landscape character of other planned wind farms in combination with the Proposed Action is listed in Table M-15.

Consideration of effects on viewer experience of other planned wind farms in combination with the Proposed Action is listed in Table M-16.

Table M-13 Other Planned Wind Farms’ Seascape, Open Ocean, and Landscape Units Cumulative Wind Farm Distances, FOVs, Noticeable Elements, Visual Contrasts, Scale of Change, and Prominence

	Character Unit		
	Seascape (Beaches) ¹	Open Ocean	Landscape ⁴
Distance in miles (kilometers)			
Atlantic Shores South	8.8 (14.2)	0 to 42.5 (0 to 68.4)	Variable to 42.5 (68.4)
Atlantic Shores North	9.1 (14.6)	0 to 42.5 (0 to 68.4)	Variable to 42.5 (68.4)
Bight Wind Holdings	26.5 (42.6)	0 to 38.6 (0 to 62.1)	Variable to 38.6 (62.1)
Atlantic Shores Offshores Wind Bight	34.4 (55.4)	0 to 38.6 (0 to 62.1)	Variable to 38.6 (62.1)
Invenergy Wind Offshore	37.5 (60.3)	0 to 38.6 (0 to 62.1)	Variable to 38.6 (62.1)
Ocean Wind 2	8.9 (14.3)	0 to 40 (64.4)	Variable to 40 (64.4)
Garden State	12.8 (20.6)	0 to 38.6 (0 to 62.1)	Variable to 38.6 (62.1)
Skipjack	15.5 (24.9)	0 to 38.6 (0 to 62.1)	Variable to 38.6 (62.1)
FOV Degrees (1% of 124°)	158° (127%)	82° to 360° (66 to 290%)	155° (125%)
Noticeable Elements ² & Impact Level	R, NL, N, H, O, and M Major	R, NL, N, H, O, M, and Y Major	R, NL, N, H, O, and M Major
Contrast, scale of change, and prominence			
Form	Strong to Weak	Strong	Strong to Weak
Line	Moderate to Weak	Strong	Moderate to Weak
Color	Strong to Weak	Strong	Strong to Weak
Texture	Moderate to Weak	Strong	Moderate to Weak
Scale	Large	Large	Large
Prominence ³	6	6	6

¹ The most conservative onshore case involves the seaward edge of the beach nearest the projects. The seascape unit edge is 3.45 miles (5.6 kilometers) offshore (New Jersey jurisdictional boundary).

² Noticeable elements: R = rotor, NL = navigation light, N = nacelle, H = hub, O = OSS, M = mid-tower light, Y = yellow tower base color

³ WTGs and OSS Prominence (visibility): 0 = Not visible. 1 = Visible only after extended study; otherwise not visible. 2 = Visible when viewing in general direction of the wind farm; otherwise likely to be missed by casual observer. 3 = Visible after brief glance in general direction of the wind farm; unlikely to be missed by casual observer. 4 = Plainly visible; could not be missed by casual observer, but does not strongly attract visual attention or dominate view. 5 = Strongly attracts viewers’ attention to the wind farm; moderate to strong contrasts in form, line, color, or texture, luminance, or motion. 6 = Dominates view; strong contrasts in form, line, color, texture, luminance, or motion fill most of the horizontal FOV or vertical FOV (NAEP 2012).

⁴ The seaward edge between landscape and seascape varies. The most conservative case is a 1.0-mile (1.6-kilometer) distance from the seaward beach edge.

Table M-14 Other Planned Wind Farms' Cumulative Viewer Experience Wind Farm Distances, FOVs, Noticeable Elements, Visual Contrasts, Scale of Change, and Prominence

	KOP ¹			
	KOP-6	KOP-14	KOP-19	KOP-22
Distance in miles (kilometers)				
Atlantic Shores South	12.1 (19.5)	11.1 (17.7)	21.6 (34.8)	31.4 (50.5)
Atlantic Shores North	11.5 (18.5)	18.2 (29.3)	31.5 (50.7)	42.2 (67.9)
Bight Wind Holdings	37.8 (60.8)	46.4 (74.7)	38.6 (62.1)	68.9 (55.2)
Atlantic Shores Offshores Wind Bight	36.7 (59)	42.2 (67.9)	54.2 (87.2)	61.5 (111)
Invenergy Wind Offshore	44.5 (71.6)	43.8 (70.5)	53.3 (85.8)	60.2 (96.9)
Ocean Wind 2	28.6 (46)	9.2 (14.8)	11.6 (18.7)	13.7 (22)
Garden State	55.7 (89.6)	42.3 (68.1)	32.9 (52.9)	22.1 (35.6)
Skipjack	62.2 (100)	50.4 (81.1)	39.8 (64.1)	28.8 (46.3)
Cumulative FOV Degrees (1% of 124°)	142° (114%)	136° (110%)	136° (110%)	144° (116%)
Noticeable Elements ² & Impact Level	R, NL, N, H, O, and M to R Major	R, NL, N, H, O, and M to R Major	R, NL, N, H, O, and M to R Major	R, NL, N, H, O, and M to R Major
Contrast, scale of change, and prominence				
Form	Strong	Strong	Strong	Strong
Line	Moderate	Moderate	Moderate	Moderate
Color	Strong	Strong	Strong	Strong
Texture	Moderate	Moderate	Moderate	Moderate
Scale	Large	Large	Large	Large
Prominence ³	6	6	6	6

¹ KOP-6 Great Bay Boulevard Wildlife Management Area, KOP-14 Atlantic City Playground Pier; KOP-19 Corson's Inlet State Park, KOP-22 Stone Harbor Beach

² Noticeable elements: R = rotor, NL = navigation light, N = nacelle, H = hub, O = OSS, M = mid-tower light, Y = yellow tower base color

³ WTGs and OSS (onshore) visibility: 0 = Not visible. 1 = Visible only after extended study; otherwise not visible. 2 = Visible when viewing in general direction of the wind farm; otherwise likely to be missed by casual observer. 3 = Visible after brief glance in general direction of the wind farm; unlikely to be missed by casual observer. 4 = Plainly visible; could not be missed by casual observer, but does not strongly attract visual attention or dominate view. 5 = Strongly attracts viewers' attention to the wind farm; moderate to strong contrasts in form, line, color, or texture, luminance, or motion. 6 = Dominates view; strong contrasts in form, line, color, texture, luminance, or motion fill most of the horizontal FOV or vertical FOV (NAEP 2012).

Table M-15 Ocean Wind 1 and Other Planned Wind Farms' Seascape, Open Ocean, and Landscape Units Cumulative Wind Farm Distances, FOVs, Noticeable Elements, Visual Contrasts, Scale of Change, and Prominence

	Character Unit		
	Seascape (Beaches) ¹	Open Ocean	Landscape ⁴
Distance in miles (kilometers)			
Proposed Action	15.3 (24.6)	0 to 40 (0 to 64.4)	Variable to 40 (64.4)
Alternatives B-1 & B-2	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action
Alternatives C-1, C-2, & D	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action
Atlantic Shores South	8.8 (14.2)	0 to 42.5 (0 to 68.4)	Variable to 42.5 (68.4)
Atlantic Shores North	9.1 (14.6)	0 to 42.5 (0 to 68.4)	Variable to 42.5 (68.4)
Bight Wind Holdings	26.5 (42.6)	0 to 38.6 (0 to 62.1)	Variable to 38.6 (62.1)
Atlantic Shores Offshores Wind Bight	34.4 (55.4)	0 to 38.6 (0 to 62.1)	Variable to 38.6 (62.1)
Invenergy Wind Offshore	37.5 (60.3)	0 to 38.6 (0 to 62.1)	Variable to 38.6 (62.1)
Ocean Wind 2	8.9 (14.3)	0 to 40 (0 to 64.4)	Variable to 40 (64.4)
Garden State	12.8 (20.6)	0 to 38.6 (0 to 62.1)	Variable to 38.6 (62.1)
Skipjack	15.5 (24.9)	0 to 38.6 (0 to 62.1)	Variable to 38.6 (62.1)
FOV Degrees (1% of 124°)	158° (127%)	82° to 360° (66 to 290%)	155° (125%)
Noticeable Elements ² & Impact Level	R, NL, N, H, O, and M to R Major	R, NL, N, H, O, M, and Y to R Major	R, NL, N, H, O, and M to R Major
Contrast, Scale of Change, and Prominence			
Form	Strong to Weak	Strong	Strong to Weak
Line	Moderate to Weak	Strong	Moderate to Weak
Color	Strong to Weak	Strong	Strong to Weak
Texture	Moderate to Weak	Strong	Moderate to Weak
Scale	Large	Large	Large
Prominence ³	6	6	6

¹ The most conservative onshore case involves the seaward edge of the beach nearest the projects. The seascape unit edge is 3.45 miles (5.6 kilometers) offshore (New Jersey jurisdictional boundary).

² Noticeable elements: R = rotor, NL = navigation light, N = nacelle, H = hub, O = OSS, M = mid-tower light, Y = yellow tower base color

³ WTGs and OSS (onshore) visibility: 0 = Not visible. 1 = Visible only after extended study; otherwise not visible. 2 = Visible when viewing in general direction of the wind farm; otherwise likely to be missed by casual observer. 3 = Visible after brief glance in general direction of the wind farm; unlikely to be missed by casual observer. 4 = Plainly visible; could not be missed by casual observer, but does not strongly attract visual attention or dominate view. 5 = Strongly attracts viewers'

attention to the wind farm; moderate to strong contrasts in form, line, color, or texture, luminance, or motion. 6 = Dominates view; strong contrasts in form, line, color, texture, luminance, or motion fill most of the horizontal FOV or vertical FOV (NAEP 2012).

⁴The seaward edge between landscape and seascape varies.

Table M-16 Ocean Wind 1 and Other Planned Wind Farms' Cumulative Viewer Experience Wind Farm Distances, FOVs, Noticeable Elements, Visual Contrasts, Scale of Change, and Prominence

	KOP			
	KOP-6	KOP-14	KOP-19	KOP-22
Distance in miles (kilometers)				
Proposed Action	21.8 (35.1)	15.3 (25.6)	16.2 (26.1)	20.9 (33.6)
Alternatives B-1 & B-2	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action
Alternatives C-1, C-2, & D	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action
Atlantic Shores South	12.1 (19.5)	11.1 (17.7)	21.6 (34.8)	31.4 (50.5)
Atlantic Shores North	11.5 (18.5)	18.2 (29.3)	31.5 (50.7)	42.2 (67.9)
Bight Wind Holdings	37.8 (60.8)	46.4 (74.7)	38.6 (62.1)	68.9 (55.2)
Atlantic Shores Offshores Wind Bight	36.7 (59)	42.2 (67.9)	54.2 (87.2)	61.5 (111)
Invenergy Wind Offshore	44.5 (71.6)	43.8 (70.5)	53.3 (85.8)	60.2 (96.9)
Ocean Wind 2	28.6 (46)	9.2 (14.8)	11.6 (18.7)	13.7 (22)
Garden State	55.7 (89.6)	42.3 (68.1)	32.9 (52.9)	22.1 (35.6)
Skipjack	62.2 (100)	50.4 (81.1)	39.8 (64.1)	28.8 (46.3)
Cumulative FOV Degrees (1% of 124°)	142° (114%)	136° (110%)	136° (110%)	144° (116%)
Noticeable Elements ² & Impact Level	R, NL, N, H, O, and M to R Major	R, NL, N, H, O, and M to R Major	R, NL, N, H, O, and M to R Major	R, NL, N, H, O, and M to R Major
Contrast, Scale of Change, and Prominence				
Form	Strong	Strong	Strong	Strong
Line	Moderate	Moderate	Moderate	Moderate
Color	Strong	Strong	Strong	Strong
Texture	Moderate	Moderate	Moderate	Moderate
Scale	Large	Large	Large	Large

	KOP			
	KOP-6	KOP-14	KOP-19	KOP-22
Prominence ³	6	6	6	6

¹ KOP-6 Great Bay Boulevard Wildlife Management Area, KOP-14 Atlantic City Playground Pier; KOP-19 Corson’s Inlet State Park, KOP-22 Stone Harbor Beach

² Noticeable elements: R = rotor, NL = navigation light, N = nacelle, H = hub, O = OSS, M = mid-tower light, Y = yellow tower base color

³ WTGs and OSS (onshore) visibility: 0 = Not visible. 1 = Visible only after extended study; otherwise not visible. 2 = Visible when viewing in general direction of the wind farm; otherwise likely to be missed by casual observer. 3 = Visible after brief glance in general direction of the wind farm; unlikely to be missed by casual observer. 4 = Plainly visible; could not be missed by casual observer, but does not strongly attract visual attention or dominate view. 5 = Strongly attracts viewers’ attention to the wind farm; moderate to strong contrasts in form, line, color, or texture, luminance, or motion. 6 = Dominates view; strong contrasts in form, line, color, texture, luminance, or motion fill most of the horizontal FOV or vertical FOV (NAEP 2012).

M.3.2 Alternative B

Table M-17 and Table M-18 compare Alternative B-1 wind farm width-, height-, and distance-related occupation of views from the nearest shoreline area with that of Alternative B-2. Distances vary by 0.8 mile and the horizontal FOVs vary by 1° or less. The vertical FOVs vary by less than 1° of the viewer FOV. These results indicate slight changes to the FOV results compared to the Proposed Action (Table M-3 and Table M-4).

Table M-17 Horizontal FOV Occupied by Alternatives B-1 and B-2

Noticeable Element	Width ¹ miles (km)	Distance miles (km)	Horizontal FOV	Human FOV	Percent of FOV
B-1 Wind Farm	11.8 (19.0)	16.1 (25.9)	36.2°	124°	29%
B-2 Wind Farm	12.0 (19.0)	16.9 (27.2)	35.4°	124°	28%

¹ The wind farm width increases from west to east.
km = kilometers

Table M-18 Vertical FOV Occupied by Alternatives B-1 and B-2

Noticeable Element	Height feet (m) MLLW	Distance miles (km)	Height Above Horizon ¹ feet (m)	Vertical FOV	Human FOV	Percent of FOV
B-1 Rotor Blade Tip	906 (276.1)	16.1 (25.9)	787 (239.9)	0.5°	55°	0.9%
B-2 Rotor Blade Tip	906 (276.1)	16.9 (27.2)	772 (239.9)	0.5°	55°	0.9%

¹ Based on intervening EC and clear-day conditions.
km = kilometers; m = meters

Table M-19 summarizes the wind farm’s noticeable elements and effects on the seascape character unit, landscape character units, and viewer experience under Alternatives B-1 and B-2. Results for Alternatives B-1 and B-2 are similar, and similar to those of the Proposed Action, with slight changes in the visibility of lower portions of towers due to EC and slight changes in the overall horizontal and vertical FOVs.

Table M-19 Wind Farm Noticeable Elements and Effects by Seascape Character Unit, Open Ocean Character Unit, Landscape Character Unit, and KOP for Alternatives B-1 and B-2

Noticeable Elements ¹ Effects	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
R, NL, N, H, O, M, and Y Major	Open Ocean Character Unit KOP-31 Recreational Fishing, Pleasure, and Tour Boat Area KOP-32 Cruise Ship Shipping Lanes

Noticeable Elements ¹ Effects	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
R, NL, N, H, O, and M Moderate	Seascape Character Units: Beachfront and Jetty/Seawall, Boardwalk, Coastal Dune, and Island Community KOP-9 North Brigantine Natural Area Wildlife Observation Deck KOP-10 16th Street Park Beachfront KOP-12 Atlantic City Beachfront—Daytime KOP-14 Atlantic City Playground Pier KOP-16 Lucy the Elephant National Historic Landmark KOP-18 Ocean City Boardwalk KOP-19 Corson’s Inlet State Park KOP-20 Sea Isle City Promenade KOP-21 Avalon Beach Jetty
R, NL, N, H, O, and M Minor	KOP-6 Great Bay Boulevard WMA KOP-7 Edwin B. Forsythe National Wildlife Refuge KOP-8 Absecon Creek Boat Ramp KOP-11 Atlantic City Country Club KOP-13 Atlantic City Beachfront—Nighttime KOP-22 Stone Harbor Beach—Daytime KOP-23 Stone Harbor Beach—Nighttime
R, NL, N, H, and O Minor	Landscape Character Units: Marshland, and Bay/Shoreline KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit KOP-17 Bay Front Historic District, Municipal Beach Park KOP-24 North Wildwood Boulevard Bridge KOP-25 Hereford Inlet Lighthouse
R, NL, N, and H Minor	Landscape Character Units: KOP-3 Bayview Park KOP-4 Garden State Parkway KOP-26 Wildwood Crest Fishing Pier KOP-27 Cape May National Wildlife Refuge
R, NL, and N Minor	Landscape Character Units: Mainland and Ridges
R Minor	KOP-1 Barnegat Lighthouse
Unseen Negligible	KOP-2 Harvey Cedars Beach Access KOP-15 Ventor City, City Hall (obscured, not distant) KOP-28 Cape May Lighthouse

¹ R = rotor, NL = navigation light, N = nacelle, H = hub, O = OSS, M = mid-tower light, Y = yellow tower base color
 WMA = Wildlife Management Area

Table M-20 summarizes the wind farm’s distance effects on the seascape unit, landscape units, and KOPs under Alternatives B-1 and B-2.

Table M-20 Wind Farm Distance Effects by Seascape Unit, Open Ocean Unit, Landscape Unit, and KOP for Alternatives B-1 and B-2

Distance miles (kilometers) Effect	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
0–40.0 (0–64.4) Dominant/Major to Minor Noticeability	Open Ocean Character Unit KOP-31 Recreational Fishing, Pleasure, and Tour Boat Area
5.8–40.0 (9.3–64.4) Dominant/Major to Minor Noticeability	Open Ocean Character Unit KOP-32 Cruise Ship Shipping Lanes
B-1: 16.1–18.0 (25.9–29.0) B-2: 16.9–18.0 (27.2–29.0) Moderate Noticeability	Seascape Character Units: Beachfront and Jetty/Seawall, Boardwalk, Coastal Dune, and Island Community KOP-9 North Brigantine Natural Area Wildlife Observation Deck KOP-10 16th Street Park Beachfront KOP-12 Atlantic City Beachfront—Daytime KOP-14 Atlantic City Playground Pier KOP-18 Ocean City Boardwalk KOP-19 Corson’s Inlet State Park KOP-21 Avalon Beach Jetty
18.0–31.0 (29.0–49.9) Minor Noticeability	Landscape Character Units: Marshland, and Bay/Shoreline KOP-3 Bayview Park KOP-4 Garden State Parkway KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit KOP-6 Great Bay Boulevard WMA KOP-7 Edwin B. Forsythe National Wildlife Refuge KOP-8 Absecon Creek Boat Ramp KOP-11 Atlantic City Country Club KOP-13 Atlantic City Beachfront—Nighttime KOP-16 Lucy the Elephant National Historic Landmark KOP-17 Bay Front Historic District, Municipal Beach Park KOP-22 Stone Harbor Beach—Daytime KOP-23 Stone Harbor Beach—Nighttime KOP-24 North Wildwood Boulevard Bridge KOP-25 Hereford Inlet Lighthouse KOP-26 Wildwood Crest Fishing Pier KOP-27 Cape May National Wildlife Refuge
31.1–40.0 (50.1–64.4) Minor Noticeability	KOP-1 Barnegat Lighthouse (elevated viewpoint) KOP-28 Cape May Lighthouse (elevated viewpoint)
31.1–40.0 (50.1–64.4) Minor to Negligible Noticeable	Landscape Character Units: Mainland and Ridges KOP-2 Harvey Cedars Beach Access KOP-15 Ventor City, City Hall (obscured, not distant) KOP-20 Sea Isle City Promenade (obscured, not distant)

WMA = Wildlife Management Area

Table M-21 summarizes the percent and degrees of FOV occupied by the wind farm and effects on the seascape unit, landscape units, and KOPs under Alternatives B-1 and B-2. There are slight differences in results for Alternatives B-1 and B-2, and slight differences from the FOVs of the Proposed Action.

Table M-21 Wind Farm Percent of FOV and Effects by Seascape Unit, Open Ocean Unit, Landscape Unit, and KOP for Alternatives B-1 and B-2

Percent of 124° FOV Effect	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
100% (124°) to 16% (20°) Dominant/Major to Minor Noticeability	Open Ocean Character Unit KOP-31 Recreational Fishing, Pleasure, and Tour Boat Area
Dominant/Major to Minor Noticeability	Open Ocean Character Unit KOP-32 Cruise Ship Shipping Lanes
B-1: 29% (36.2°) to 29% (36°) B-2: 28% (35.4°) to 29% (36°) Moderate Noticeability	Seascape Character Units: Beachfront and Jetty/Seawall, Boardwalk, Coastal Dune, and Island Community KOP-9 North Brigantine Natural Area Wildlife Observation Deck KOP-10 16th Street Park Beachfront KOP-11 Atlantic City Country Club KOP-12 Atlantic City Beachfront—Daytime KOP-14 Atlantic City Playground Pier KOP-15 Ventor City, City Hall KOP-16 Lucy the Elephant National Historic Landmark KOP-17 Bay Front Historic District, Municipal Beach Park KOP-18 Ocean City Boardwalk KOP-19 Corson’s Inlet State Park KOP-20 Sea Isle City Promenade KOP-21 Avalon Beach Jetty
20% (25°) Minor to Moderate	KOP-13 Atlantic City Beachfront—Nighttime KOP-22 Stone Harbor Beach—Daytime KOP-23 Stone Harbor Beach—Nighttime
28% (35°) to 20% (25°) Minor Noticeability	Landscape Character Units: Marshland, and Bay/Shoreline KOP-3 Bayview Park KOP-4 Garden State Parkway KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit KOP-6 Great Bay Boulevard WMA KOP-7 Edwin B. Forsythe National Wildlife Refuge KOP-8 Absecon Creek Boat Ramp KOP-24 North Wildwood Boulevard Bridge KOP-25 Hereford Inlet Lighthouse KOP-26 Wildwood Crest Fishing Pier KOP-27 Cape May National Wildlife Refuge

Percent of 124° FOV Effect	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
28% (25°) to 16% (20°) Minor to Negligible Noticeable	Landscape Character Units: Mainland and Ridges KOP-1 Barnegat Lighthouse KOP-2 Harvey Cedars Beach Access KOP-28 Cape May Lighthouse KOP-29 BL England Substation Area KOP-30 Oyster Creek Substation Area

WMA = Wildlife Management Area

Foreground influence assessments, involving the presence of intervening or framing elements and their influence on effects of Project characteristics, are based on the Alternatives B-1 and B-2 visual simulations (Attachment M-3) and locale photography (Appendix D to COP Volume III, Appendix L; Ocean Wind 2023). KOP foreground influences would be similar for Alternatives B-1 and B-2, as summarized in Table M-22.

Table M-22 Foreground View Framing or Intervening Elements for Alternatives B-1 and B-2

Foreground Element(s) Influence	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
Open Ocean Negligible Influence	Open Ocean Character Unit KOP-31 Recreational Fishing, Pleasure, and Tour Boat Area KOP-32 Cruise Ship Shipping Lanes
Beach, Dunes, and Ocean Minor Influence	Seascape Character Units: Beachfront and Jetty/Seawall, Boardwalk, and Coastal Dune KOP-2 Harvey Cedars Beach Access KOP-3 Bayview Park KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit KOP-10 16th Street Park Beachfront KOP-12 Atlantic City Beachfront—Daytime KOP-13 Atlantic City Beachfront—Nighttime KOP-14 Atlantic City Playground Pier KOP-18 Ocean City Boardwalk KOP-19 Corson’s Inlet State Park KOP-21 Avalon Beach Jetty KOP-22 Stone Harbor Beach—Daytime KOP-23 Stone Harbor Beach—Nighttime KOP-26 Wildwood Crest Fishing Pier

Foreground Element(s) Influence	Seascape Units, Open Ocean Unit, Landscape Units, and Offshore and Onshore Key Observation Points
Buildings, Vegetation, and Topography Moderate to Dominant Influence	Landscape Character Units: Island Community, Marshland, Bay/Shoreline, Mainland, and Ridges KOP-1 Barnegat Lighthouse KOP-2 Harvey Cedars Beach Access KOP-4 Garden State Parkway KOP-6 Great Bay Boulevard WMA KOP-7 Edwin B. Forsythe National Wildlife Refuge KOP-8 Absecon Creek Boat Ramp KOP-9 North Brigantine Natural Area Wildlife Observation Deck KOP-11 Atlantic City Country Club KOP-15 Ventor City, City Hall KOP-16 Lucy the Elephant National Historic Landmark KOP-17 Bay Front Historic District, Municipal Beach Park KOP-20 Sea Isle City Promenade KOP-24 North Wildwood Boulevard Bridge KOP-25 Hereford Inlet Lighthouse KOP-27 Cape May National Wildlife Refuge KOP-28 Cape May Lighthouse

WMA = Wildlife Management Area

Visual contrast assessments, form, line, color, and texture comparisons of characteristics of the seascape and landscape before and after implementation of Alternative B-1 or B-2 are indicated in Table M-23. There would be a slight difference in contrasts between Alternatives B-1 and B-2, and a slight difference from the Proposed Action. Project contrasts to the characteristic seascape and landscape, as perceived in views from each KOP locale, are based on Alternatives B-1 and B-2 visual simulations (Attachment M-3).

Table M-23 Visual Contrasts to Seascape, Open Ocean, Landscape, and KOPs for Alternatives B-1 and B-2

Contrast Rating Effects	Seascape Units, Open Ocean Unit, and Offshore and Onshore Key Observation Points
Strong Contrasts Major	Open Ocean KOP-31 Recreational Fishing, Pleasure, and Tour Boat Area KOP-32 Cruise Ship Shipping Lanes

Contrast Rating Effects	Seascape Units, Open Ocean Unit, and Offshore and Onshore Key Observation Points
Moderate Contrasts Moderate	Seascape KOP-9 North Brigantine Natural Area Wildlife Observation Deck KOP-10 16th Street Park Beachfront KOP-12 Atlantic City Beachfront—Daytime KOP-14 Atlantic City Playground Pier KOP-18 Ocean City Boardwalk KOP-19 Corson's Inlet State Park KOP-21 Avalon Beach Jetty KOP-22 Stone Harbor Beach—Daytime KOP-23 Stone Harbor Beach—Nighttime KOP-16 Lucy the Elephant National Historic Landmark
Weak Contrasts Minor	Landscape KOP-1 Barnegat Lighthouse KOP-3 Bayview Park KOP-4 Garden State Parkway KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit KOP-6 Great Bay Boulevard WMA KOP-7 Edwin B. Forsythe National Wildlife Refuge KOP-8 Absecon Creek Boat Ramp KOP-11 Atlantic City Country Club KOP-13 Atlantic City Beachfront—Nighttime KOP-17 Bay Front Historic District, Municipal Beach Park KOP-24 North Wildwood Boulevard Bridge KOP-25 Hereford Inlet Lighthouse KOP-26 Wildwood Crest Fishing Pier KOP-28 Cape May Lighthouse KOP-29 BL England Substation Area KOP-30 Oyster Creek Substation Area
None to very weak Negligible	KOP-2 Harvey Cedars Beach Access KOP-15 Ventnor City, City Hall KOP-20 Sea Isle City Promenade KOP-27 Cape May National Wildlife Refuge

WMA = Wildlife Management Area

The seascape, open ocean, and landscape criteria listed in Table M-1, and related consideration of the preceding assessments, would result in impact levels. Table M-24 summarizes the impacts of Alternatives B-1 and B-2 on the seascape character units, open ocean character unit, and landscape character units throughout the geographic analysis area. While there would be slight differences in the extents of visible elements, FOVs, and contrasts, overall impact levels would be similar for Alternative B-1, Alternative B-2, and the Proposed Action.

Table M-24 Alternatives B-1 and B-2 Impact on Seascape Character, Open Ocean Character, and Landscape Character

Level of Impact	Seascape Character Units, Open Ocean Character Unit, and Landscape Character Units
Major	SLIA: Open Ocean Character Unit
Moderate	SLIA: Seascape Character Units and Landscape Character Units: Beachfront and Jetty/Seawall, Boardwalk, Coastal Dune, and Island Community
Minor	SLIA: Landscape Character Units: Bay/Shoreline, Island, Mainland, Marshland, and Ridges
Negligible	SLIA: Landscape Character Units: Island, Mainland, and Ridges

The viewer experience criteria listed in Table M-1, and related consideration of the preceding assessments, would result in impact levels. Table M-25 summarizes the impacts of Alternatives B-1 and B-2 on the viewer experience (KOP locations) throughout the geographic analysis area. While there would be slight differences in the extents of visible elements, FOVs, and contrasts, overall impact levels would be similar for Alternative B-1, Alternative B-2, and the Proposed Action.

Table M-25 Impact of Alternatives B-1 and B-2 on Viewer Experience

Impact Level	Offshore and Onshore Key Observation Points
Major	VIA: KOP-31 Recreational Fishing, Pleasure, and Tour Boat Area KOP-32 Cruise Ship Shipping Lanes SLIA: Seascape Character Units: Beachfront and Jetty/Seawall, Boardwalk, Coastal Dune, and Island Community
Moderate	SLIA: Seascape Character Units: Beachfront and Jetty/Seawall, Boardwalk, Coastal Dune, and Island Community VIA: KOP-7 Edwin B. Forsythe National Wildlife Refuge KOP-9 North Brigantine Natural Area Wildlife Observation Deck KOP-10 16th Street Park Beachfront KOP-12 Atlantic City Beachfront—Daytime KOP-14 Atlantic City Playground Pier KOP-16 Lucy the Elephant National Historic Landmark KOP-18 Ocean City Boardwalk KOP-19 Corson’s Inlet State Park KOP-21 Avalon Beach Jetty KOP-22 Stone Harbor Beach—Daytime KOP-23 Stone Harbor Beach—Nighttime

Impact Level	Offshore and Onshore Key Observation Points
Minor	SLIA: Landscape Character Units: Marshland, and Bay/Shoreline VIA: KOP-1 Barnegat Lighthouse KOP-3 Bayview Park KOP-4 Garden State Parkway KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit KOP-6 Great Bay Boulevard WMA KOP-8 Absecon Creek Boat Ramp KOP-11 Atlantic City Country Club KOP-13 Atlantic City Beachfront—Nighttime KOP-17 Bay Front Historic District, Municipal Beach Park KOP-24 North Wildwood Boulevard Bridge KOP-25 Hereford Inlet Lighthouse KOP-26 Wildwood Crest Fishing Pier KOP-28 Cape May Lighthouse KOP-29 BL England Substation Area KOP-30 Oyster Creek Substation Area
Negligible	SLIA: Landscape Character Units: Mainland and Ridges VIA: KOP-2 Harvey Cedars Beach Access KOP-15 Ventnor City, City Hall KOP-20 Sea Isle City Promenade KOP-27 Cape May National Wildlife Refuge

WMA = Wildlife Management Area

M.3.3 Alternatives C-1, C-2, and D

Table M-26 and Table M-27 compare Alternatives C-1, C-2, and D wind farm width-, height-, and distance-related occupation of views from the nearest shoreline area. Distances vary by 1.2 mile and the horizontal FOVs vary by 2.3 degree. The vertical FOV is less than 1°. These results indicate slight changes to the FOV results compared to the Proposed Action (Table M-3 and Table M-4).

Table M-26 Horizontal FOV Occupied by Alternatives C-1, C-2, and D

Noticeable Element	Width miles (km)	Distance miles (km)	Horizontal FOV	Human FOV	Percent of FOV
C-1 Wind Farm	10.6 (17.1)	14.1 (22.7)	36.9°	124°	30%
C-2 Wind Farm	10.7 (17.2)	15.1 (24.3)	35.3°	124°	30%
D Wind Farm	11.8 (19.0)	15.3 (25.9)	37.6°	124°	30%

km = kilometers

Table M-27 Vertical FOV Occupied by Alternatives C-1, C-2, and D

Noticeable Element	Height feet (m) MLLW	Distance miles (km)	Visible Height ¹ feet (m)	Vertical FOV	Human FOV	Percent of FOV
C-1 Rotor Blade Tip	906 feet (276.1)	14.1 (22.7)	820 (244)	0.6°	55°	1%
C-2 Rotor Blade Tip	906 feet (276.1)	15.1 (24.3)	804 (244)	0.6°	55°	1%
D Rotor Blade Tip	906 feet (276.1)	15.3 (25.9)	801 (244)	0.6°	55°	1%

¹ Based on intervening EC and clear-day conditions.
 km = kilometers; m = meters

M.4. SLIA Summary

SLIA considers the impacts on the physical elements and features that make up a seascape, open ocean, or landscape and the aesthetic, perceptual, and experiential aspects of the seascape, open ocean, or landscape that contribute to its distinctive character. These impacts affect the “feel,” “character,” or “sense of place” of an area of seascape, open ocean, or landscape. Table M-28 summarizes the effects of the character of the offshore and onshore components of the Project with the aspects that contribute to the distinctive character of the seascape, open ocean, and landscape areas from which the Project would be visible (BOEM 2021).

M.5. VIA Summary

The VIA considers the characteristics of the view receptor, characteristics of the view toward the Project facilities, and experiential impacts of the Project. Table M-29 summarizes the viewer sensitivity, view receptor susceptibility, view value, and summary of the measures of effects from the visible character and magnitude of the offshore and onshore components of the Project (BOEM 2021).

Table M-28 Seascape Character, Open Ocean Character, Landscape Character and Impact Levels

Character Unit	Affected Environment						Proposed Action												Impact Levels					
	Unit Susceptibility			Unit Value			Project Visibility				Character Key Feature Change			Character Key Element Change			Character Key Quality Change			Proposed Action				Alternatives B-1, B-2, C-1, C-2, and D
	High	Medium	Low	High	Medium	Low	Dominant	Substantial	Low	Unseen	High	Medium	Low	High	Medium	Low	High	Medium	Low	Major	Moderate	Minor	Negligible	
Open Ocean	X			X			X				X			X			X			X				Same as Proposed Action
Seascape Ocean	X			X			X				X			X			X			X				Same as Proposed Action
Seascape Beachfront	X			X			X				X			X			X			X				Same as Proposed Action
Seascape Boardwalks/Jetties/Seawalls	X			X			X				X			X			X			X				Same as Proposed Action
Seascape Dunes	X			X			X				X			X			X			X				Same as Proposed Action
Seascape Commerce	X				X		X				X			X			X			X				Same as Proposed Action
Seascape Institutional	X			X			X				X			X			X			X				Same as Proposed Action
Seascape Municipal	X			X			X				X			X			X			X				Same as Proposed Action
Seascape Parks	X			X			X				X			X			X			X				Same as Proposed Action
Seascape Preserves	X			X			X				X			X			X			X				Same as Proposed Action
Seascape Residential	X			X			X				X			X			X			X				Same as Proposed Action
Landscape Bay/Estuary/Marsh	X			X				X				X			X			X			X			Same as Proposed Action

Character Unit	Affected Environment						Proposed Action									Impact Levels				Impact Level					
	Unit Susceptibility			Unit Value			Project Visibility				Character Key Feature Change			Character Key Element Change			Character Key Quality Change				Proposed Action				Alternatives B-1, B-2, C-1, C-2, and D
	High	Medium	Low	High	Medium	Low	Dominant	Substantial	Low	Unseen	High	Medium	Low	High	Medium	Low	High	Medium	Low		Major	Moderate	Minor	Negligible	
Landscape River	X			X				X				X			X			X			X			Same as Proposed Action	
Landscape Agriculture			X			X	X					X			X			X			X			Same as Proposed Action	
Landscape Commerce			X			X	X					X			X			X			X			Same as Proposed Action	
Landscape Forest		X		X					X			X			X			X						Same as Proposed Action	
Landscape Institutional	X			X				X				X			X			X			X			Same as Proposed Action	
Landscape Park	X			X				X				X			X			X			X			Same as Proposed Action	
Landscape Preserve	X			X				X				X			X			X			X			Same as Proposed Action	
Landscape Recreation		X			X			X				X			X			X			X			Same as Proposed Action	
Landscape Residential	X			X				X				X			X			X			X			Same as Proposed Action	

Table M-29 Viewer Sensitivity, Receptor Susceptibility, View Value, Viewer Experience, and Impact Levels

KOP ¹	Affected Environment									Viewer Experience				Impact Levels				
	Viewer Sensitivity			Receptor Susceptibility			View Value			Distance-Noticeable Elements-HFOV-VFOV-Contrast-Scale-Prominence Effects				Proposed Action		Alternatives B-1, B-2, C-1, C-2, and D		
	High	Medium	Low	High	Medium	Low	High	Medium	Low	Dominant	Substantial	Low	Unseen	Major	Moderate	Minor	Negligible	Impact Levels
KOP-1 ²	X			X			X					X			X			Same as Proposed Action
KOP-2	X				X		X					X				X		Same as Proposed Action
KOP-3 ²	X			X			X					X			X			Same as Proposed Action
KOP-4	X					X	X						X		X			Same as Proposed Action
KOP-5	X				X		X					X			X			Same as Proposed Action
KOP-6	X				X		X					X			X			Same as Proposed Action
KOP-7	X			X			X					X			X			Same as Proposed Action
KOP-8	X			X			X					X			X			Same as Proposed Action
KOP-9	X					X	X			X				X				Same as Proposed Action
KOP-10	X				X		X			X				X				Same as Proposed Action
KOP-11	X				X		X					X			X			Same as Proposed Action
KOP-12	X				X		X			X				X				Same as Proposed Action
KOP-13	X				X		X					X			X			Same as Proposed Action
KOP-14	X				X		X			X				X				Same as Proposed Action
KOP-15 ²	X			X			X						X			X		Same as Proposed Action
KOP-16	X			X			X			X				X				Same as Proposed Action
KOP-17	X			X			X					X			X			Same as Proposed Action
KOP-18	X				X		X			X				X				Same as Proposed Action
KOP-19	X				X		X			X				X				Same as Proposed Action
KOP-20	X				X		X						X			X		Same as Proposed Action
KOP-21	X				X		X					X		X				Same as Proposed Action
KOP-22	X				X		X					X			X			Same as Proposed Action
KOP-23	X				X		X					X			X			Same as Proposed Action

KOP ¹	Affected Environment									Viewer Experience				Impact Levels				
	Viewer Sensitivity			Receptor Susceptibility			View Value			Distance-Noticeable Elements-HFOV-VFOV-Contrast-Scale-Prominence Effects				Proposed Action		Alternatives B-1, B-2, C-1, C-2, and D		
	High	Medium	Low	High	Medium	Low	High	Medium	Low	Dominant	Substantial	Low	Unseen	Major	Moderate	Minor	Negligible	Impact Levels
KOP-24	X				X		X					X				X		Same as Proposed Action
KOP-25	X				X		X					X				X		Same as Proposed Action
KOP-26	X				X		X					X				X		Same as Proposed Action
KOP-27	X				X		X						X				X	Same as Proposed Action
KOP-28	X				X		X					X				X		Same as Proposed Action
KOP-29		X		X				X				X				X		Same as Proposed Action
KOP-30		X		X				X				X				X		Same as Proposed Action
KOP-31	X			X			X			X				X				Same as Proposed Action
KOP-32	X			X			X			X				X				NA

¹ KOP-1 Barnegat Lighthouse; KOP-2 Harvey Cedars Beach Access; KOP-3 Bayview Park; KOP-4 Garden State Parkway; KOP-5 Edwin B. Forsythe National Wildlife Refuge - Holgate Unit; KOP-6 Great Bay Boulevard Wildlife Management Area; KOP-7 Edwin B. Forsythe National Wildlife Refuge; KOP-8 Absecon Creek Boat Ramp; KOP-9 North Brigantine Natural Area Wildlife Observation Deck; KOP-10 16th Street Park Beachfront; KOP-11 Atlantic City Country Club; KOP-12 Atlantic City Beachfront; KOP-13 Atlantic City Beachfront (Nighttime); KOP-14 Atlantic City Playground Pier; KOP-15 Ventrone City, City Hall; KOP-16 Lucy the Elephant National Historic Landmark; KOP-17 Bay Front Historic District, Municipal Beach Park; KOP-18 Ocean City Boardwalk; KOP-19 Corson's Inlet State Park; KOP-20 Sea Isle City Promenade; KOP-21 Avalon Beach Jetty; KOP-22 Stone Harbor Beach; KOP-23 Stone Harbor Beach (nighttime); KOP-24 North Wildwood Boulevard Bridge; KOP-25 Hereford Inlet Lighthouse; KOP-26 Wildwood Crest Fishing Pier; KOP-27 Cape May National Wildlife Refuge; KOP-28 Cape May Lighthouse; KOP-29 BL England Substation Area; KOP-30 Oyster Creek Substation Area; KOP-31 Commercial and Recreational Fishing and Tour Boat Area; KOP-32 Commercial and Cruise Ship Shipping Lanes

² Elevated observation deck or lighthouse.

HFOV = horizontal field of view; NA = not applicable; VFOV = vertical field of view

M.6. References

Bureau of Ocean Energy Management (BOEM). 2021. *Assessment of Seascape, Landscape, and Visual Impacts of Offshore Wind Energy Developments on the Outer Continental Shelf of the United States*. OCS Study BOEM 2021-032. April.

National Association of Environmental Professionals. (NAEP). 2012. *Offshore Wind Turbine Visibility and Visual Impact Thresholds*.

Ocean Wind LLC (Ocean Wind). 2023. *Construction and Operations Plan, Ocean Wind Offshore Wind Farm*. Volumes I–III. May. Available: <https://www.boem.gov/ocean-wind-construction-and-operations-plan/>.

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**ATTACHMENT M-1
SCENIC RESOURCES OVERVIEW MAP**

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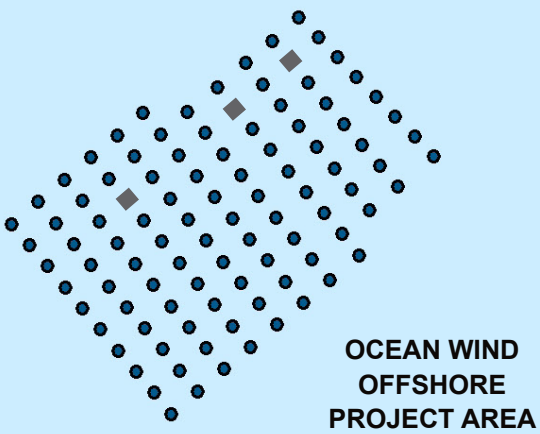
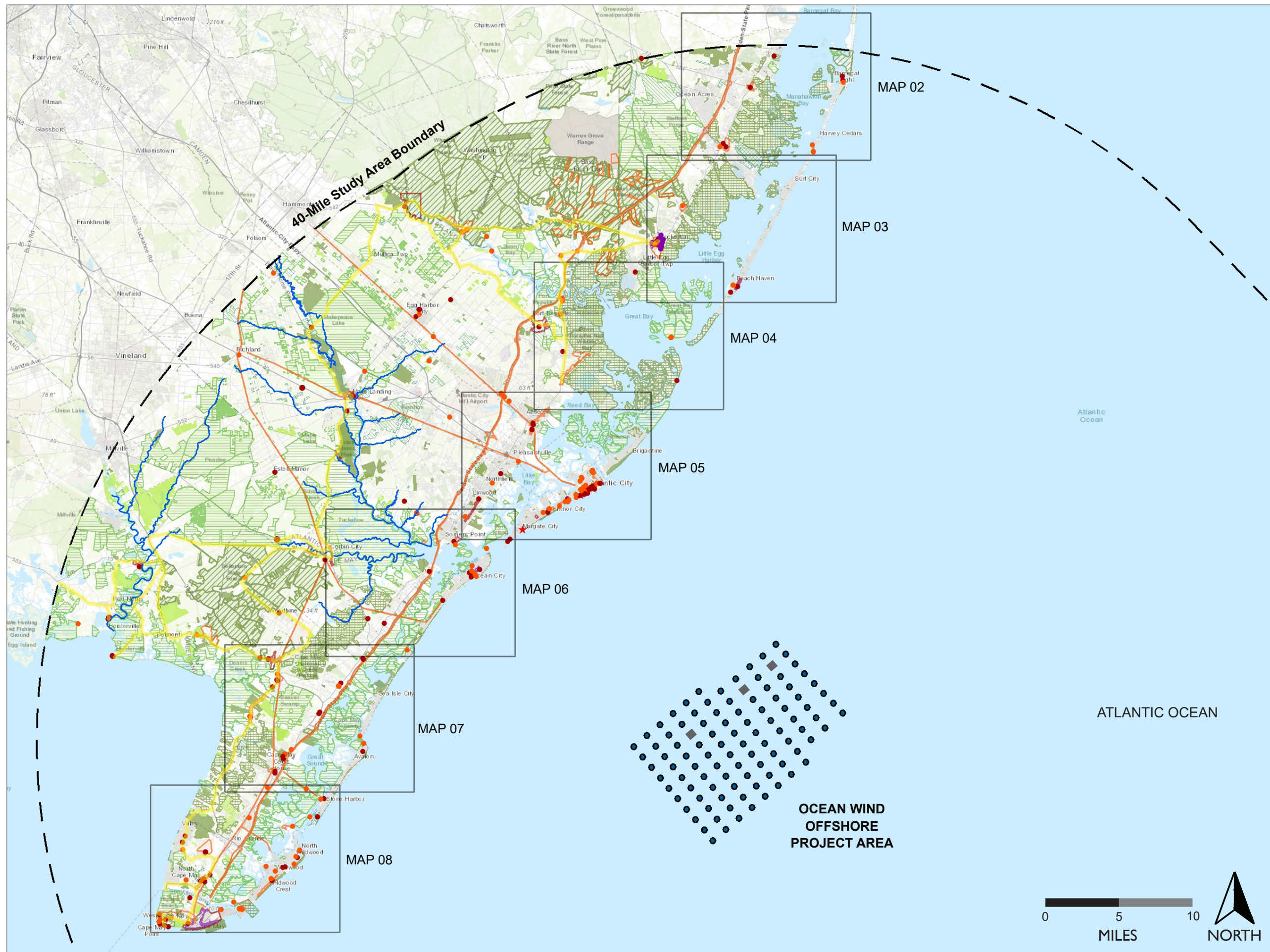
SCENIC RESOURCE
MAPPING

RESOURCES MAP 1

OVERVIEW MAP

LEGEND

- 40-Mile Study Area Boundary
- C527 Resource Code (see Scenic Resource Table)
- Conservation Areas**
 - National Natural Landmark (NNL)
 - National Wildlife Refuge
 - State Park/State Forest
 - State Wildlife Management Area (WMA)
 - State Recreation Area
 - Local Park/Conservation/Recreation Area
 - Historic or Cultural Conservation Area
 - Private Conservation Land
- Historic Resources**
 - National Historic Landmark (NHL)
 - NHL District
 - Listed NRHP Historic Property
 - Listed NRHP Historic District
 - Eligible NRHP Historic Property
 - Eligible NRHP Historic District
 - Local Historic Landmark
 - Local NRHP Historic District
- Other Resources**
 - State Scenic Byway
 - National Wild & Scenic Rivers
 - Waterbodies
 - Cemetery



OCEAN WIND



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**ATTACHMENT M-2
CUMULATIVE VISUAL SIMULATIONS**

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CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

VIEWPOINT

Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township

VISUALIZATIONS

VISUALIZATIONS INCLUDED	
1A	Northeast view: only Ocean Wind 1
1B	Northeast view: all visible projects
1C	Northeast view: all visible projects except Ocean Wind 1
2A	Southeast view: only Ocean Wind 1
2B	Southeast view: all visible projects
2C	Southeast view: all visible projects except Ocean Wind 1

** New York Bight WEA is not visible from this viewpoint due to the land mass in the foreground.

CUMULATIVE PROJECT INFORMATION

OFFSHORE WIND PROJECT	THEORETICALLY VISIBLE FROM VIEWPOINT*	DISTANCE TO NEAREST WTG (mi)	DISTANCE TO FARTHEST WTG (mi)	NUMBER OF THEORETICALLY VISIBLE TURBINES	HORIZONTAL FIELD OF VIEW
New York Bight WEA	Yes	36.6	69.7	0**	0°
Atlantic Shores North	Yes	11.2	23.6	131	56°
Atlantic Shores South	Yes	11.9	28.0	202	43°
Ocean Wind 1	Yes	21.9	34.1	69	30°
Ocean Wind 2	Yes	26.3	41.9	24	14°
Ocean Wind X	Yes	16.4	24.0	33	26°
Garden State	No	55.8	66.1	0	0°
Skip Jack	No	64.2	71.6	0	0°
US Wind	No	76.4	89.2	0	0°

*A distance of 40-miles from each viewpoint has been used to define the limits of theoretical visibility. This 40-mile distance aligns with the visual study area used in the Ocean Wind Visual Impact Assessment. For an observation elevation of 25 feet (typical of views from the boardwalks on the coast of New Jersey), the limit of Ocean Wind turbine hub visibility would be 37.3 miles due to earth curvature. While the blade tips are located above the horizon beyond this range, they are unlikely to be detected by observers at these distances due to the limits of visual acuity.

WIND DIRECTION

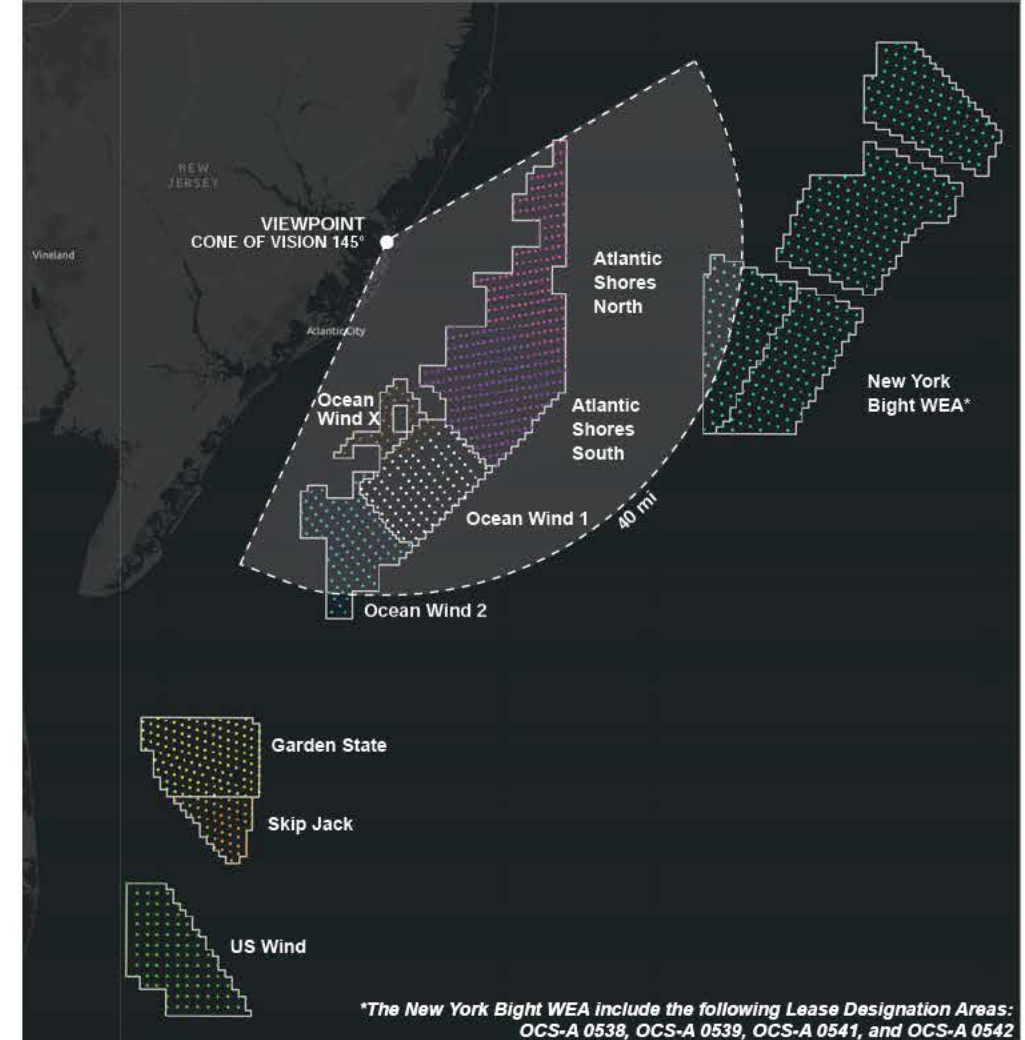
NORTHWEST

Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.

VIEWPOINT INFORMATION

LOCATION		PHOTO		ENVIRONMENTAL	
VIA KOP #	V06	Camera	NIKON D5500	Temperature	72°
Date / Time	09/20/2018 / 9:40am	Resolution	300 dpi	Humidity	73%
Latitude / Longitude	39.508809° / -74.322008°	Focal Length	50 mm	Wind Speed	10 mph
Direction of View	Northeast to Southeast	Viewer Eye Elevation	7 ft	Weather Conditions	Overcast

CUMULATIVE PROJECT MAP



COMPLETE PANORAMIC VIEW



Panoramic Field of View: 145° (based on Nikon D5500 camera lens, where a Normal Photo is 37.26°)

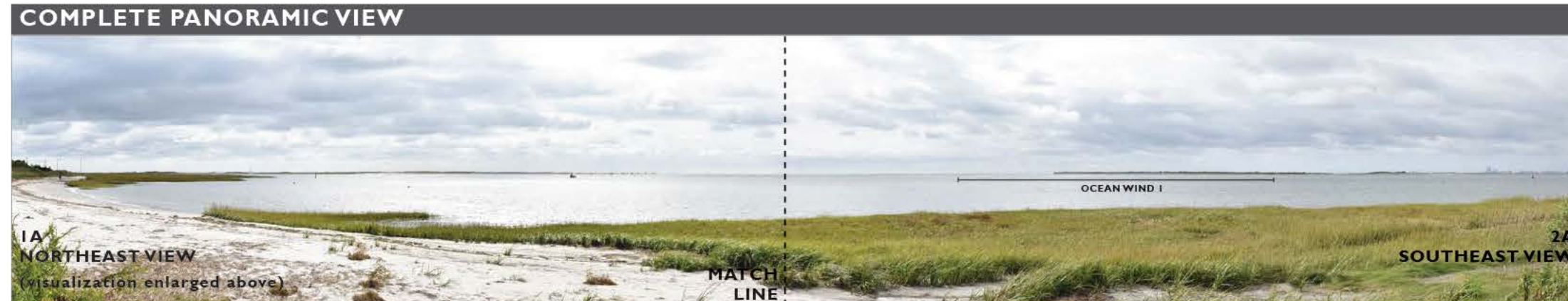
CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

1A: Northeast view showing only Ocean Wind I Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township



Ocean Wind 1 not in view

Panoramic Field of View: 69°



WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



Panoramic Field of View: 145°

CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

1B: Northeast view showing all visible projects

Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township



Ocean Wind 1 not in view

Panoramic Field of View: 69°

PROJECT MAP



COMPLETE PANORAMIC VIEW



Panoramic Field of View: 145°

WIND DIRECTION

NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



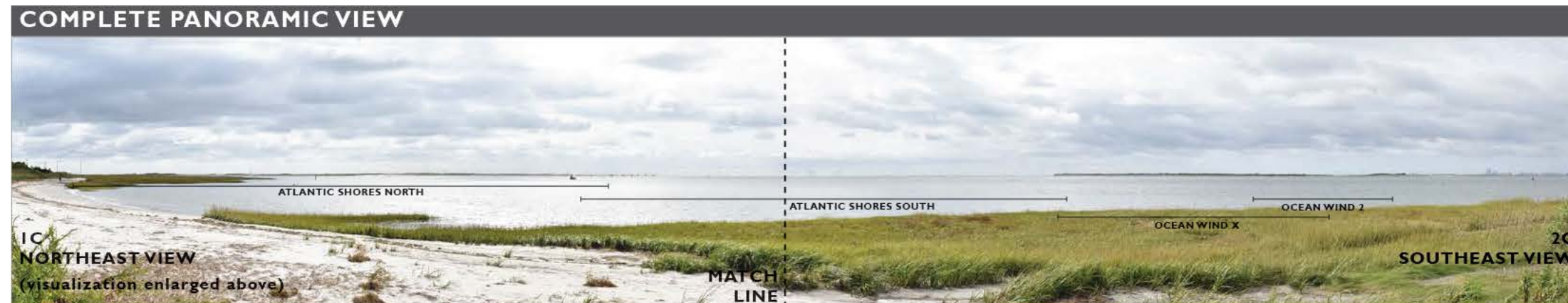
CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

1C: Northeast view showing all projects except Ocean Wind I Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township



Ocean Wind 1 not in view

Panoramic Field of View: 69°



WIND DIRECTION

NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



Panoramic Field of View: 145°

CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

2A: Southeast view showing only Ocean Wind I Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township



Panoramic Field of View: 69°



Panoramic Field of View: 145°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.

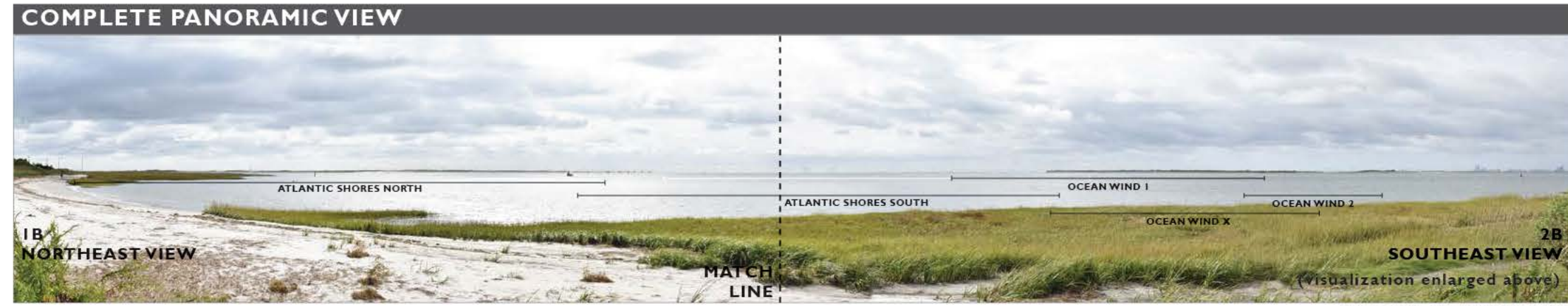


CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

2B: Southeast view showing all visible projects Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township



Panoramic Field of View: 69°



Panoramic Field of View: 145°

WIND DIRECTION
NORTHWEST
 Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.

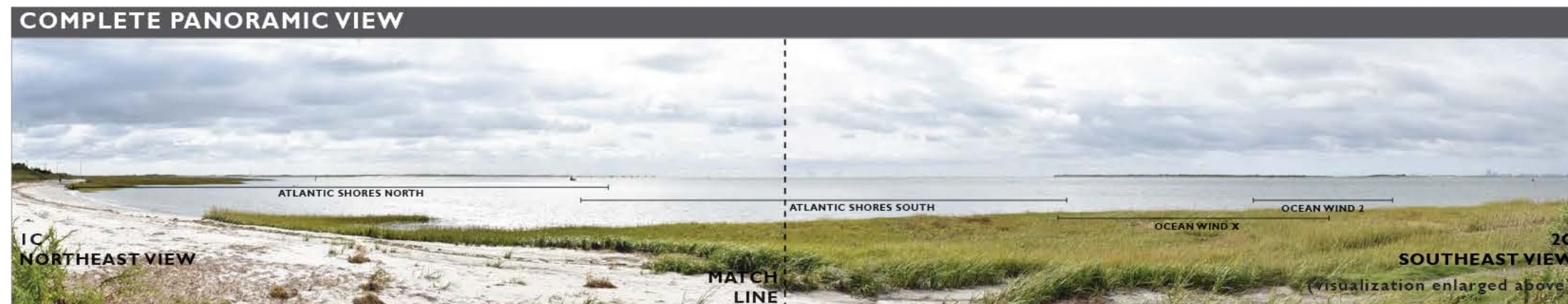


CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

2C: Southeast view showing all projects except Ocean Wind I Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township



Panoramic Field of View: 69°



Panoramic Field of View: 145°

WIND DIRECTION
NORTHWEST
 Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

VIEWPOINT

Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township

VISUALIZATIONS

VISUALIZATIONS INCLUDED	
1A	Northeast view: only Ocean Wind 1
1B	Northeast view: all visible projects
1C	Northeast view: all visible projects except Ocean Wind 1
2A	Southeast view: only Ocean Wind 1
2B	Southeast view: all visible projects
2C	Southeast view: all visible projects except Ocean Wind 1

** New York Bight WEA is not visible from this viewpoint due to the land mass in the foreground.

CUMULATIVE PROJECT INFORMATION

OFFSHORE WIND PROJECT	THEORETICALLY VISIBLE FROM VIEWPOINT*	DISTANCE TO NEAREST WTG (mi)	DISTANCE TO FARTHEST WTG (mi)	NUMBER OF THEORETICALLY VISIBLE TURBINES	HORIZONTAL FIELD OF VIEW
New York Bight WEA	Yes	36.6	69.7	0**	0°
Atlantic Shores North	Yes	11.2	23.6	131	56°
Atlantic Shores South	Yes	11.9	28.0	202	43°
Ocean Wind 1	Yes	21.9	34.1	69	30°
Ocean Wind 2	Yes	26.3	41.9	24	14°
Ocean Wind X	Yes	16.4	24.0	33	26°
Garden State	No	55.8	66.1	0	0°
Skip Jack	No	64.2	71.6	0	0°
US Wind	No	76.4	89.2	0	0°

*A distance of 40-miles from each viewpoint has been used to define the limits of theoretical visibility. This 40-mile distance aligns with the visual study area used in the Ocean Wind Visual Impact Assessment. For an observation elevation of 25 feet (typical of views from the boardwalks on the coast of New Jersey), the limit of Ocean Wind turbine hub visibility would be 37.3 miles due to earth curvature. While the blade tips are located above the horizon beyond this range, they are unlikely to be detected by observers at these distances due to the limits of visual acuity.

WIND DIRECTION

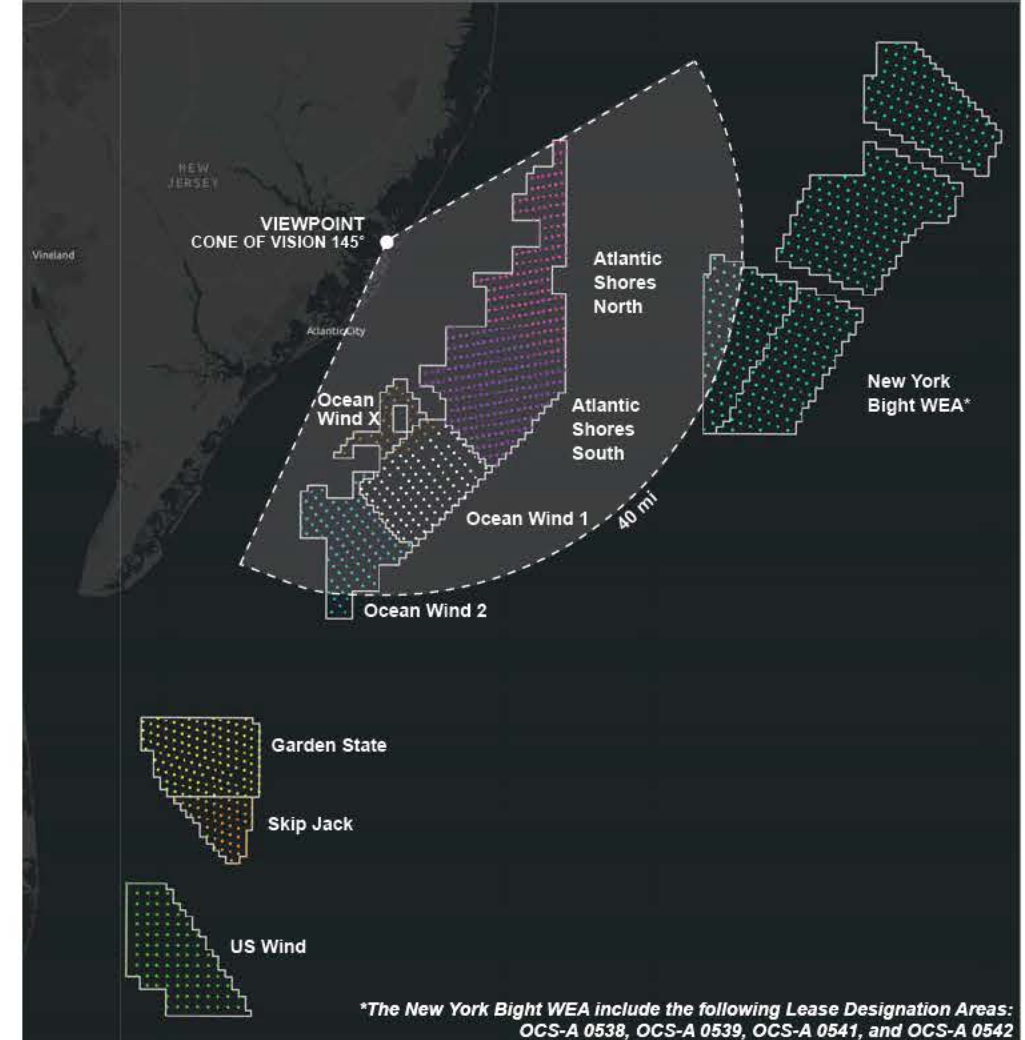
SOUTHWEST

Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.

VIEWPOINT INFORMATION

LOCATION		PHOTO		ENVIRONMENTAL	
VIA KOP #	V06	Camera	NIKON D5500	Temperature	72°
Date / Time	09/20/2018 / 9:40am	Resolution	300 dpi	Humidity	73%
Latitude / Longitude	39.508809° / -74.322008°	Focal Length	50 mm	Wind Speed	10 mph
Direction of View	Northeast to Southeast	Viewer Eye Elevation	7 ft	Weather Conditions	Overcast

CUMULATIVE PROJECT MAP



COMPLETE PANORAMIC VIEW



Panoramic Field of View: 145° (based on Nikon D5500 camera lens, where a Normal Photo is 37.26°)

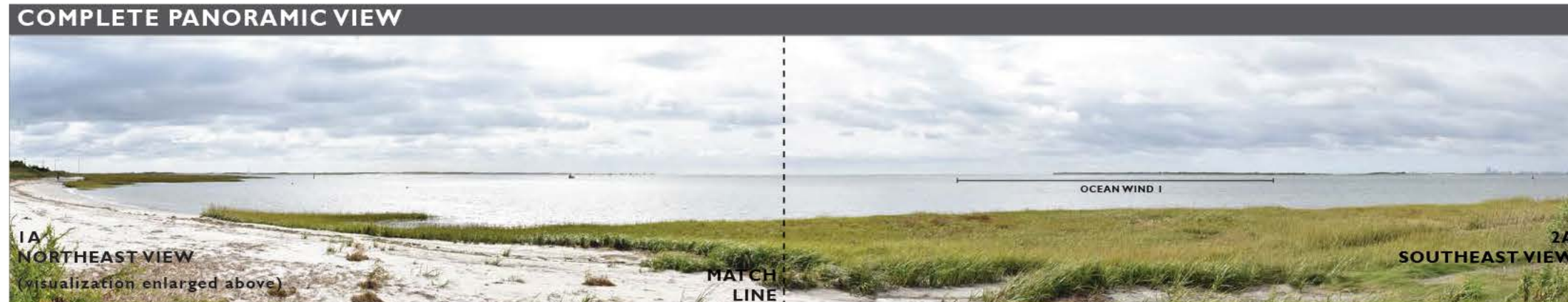
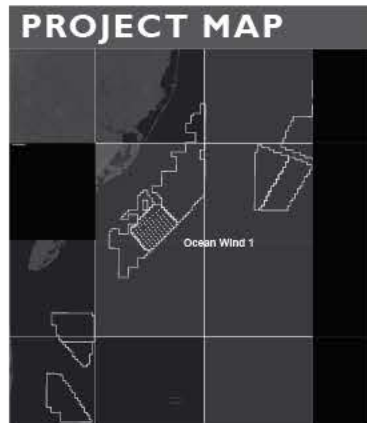
CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

1A: Northeast view showing only Ocean Wind I Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township



Ocean Wind 1 not in view

Panoramic Field of View: 69°



WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



Panoramic Field of View: 145°

CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

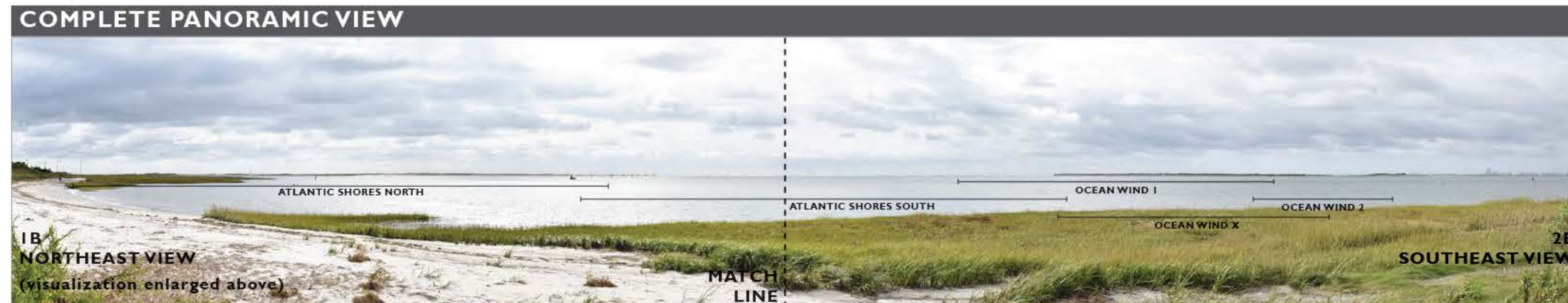
1B: Northeast view showing all visible projects

Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township



Ocean Wind 1 not in view

Panoramic Field of View: 69°



WIND DIRECTION

SOUTHWEST

Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



Panoramic Field of View: 145°

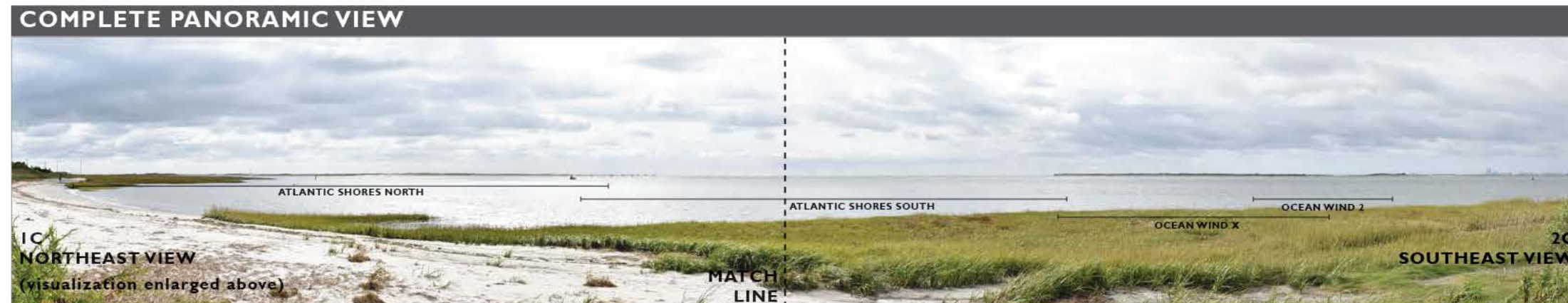
CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

1C: Northeast view showing all projects except Ocean Wind I Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township



Ocean Wind 1 not in view

Panoramic Field of View: 69°



Panoramic Field of View: 145°

WIND DIRECTION
SOUTHWEST
 Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.

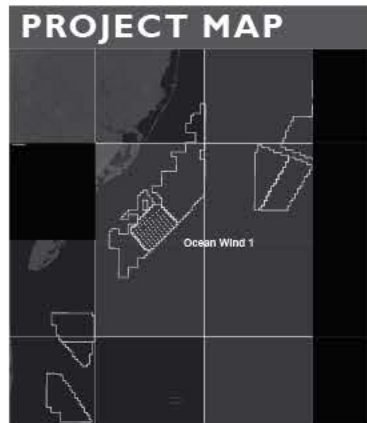


CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

2A: Southeast view showing only Ocean Wind I Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township



Panoramic Field of View: 69°



Panoramic Field of View: 145°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

2B: Southeast view showing all visible projects

Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township



Panoramic Field of View: 69°

PROJECT MAP



COMPLETE PANORAMIC VIEW



Panoramic Field of View: 145°

WIND DIRECTION

SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.

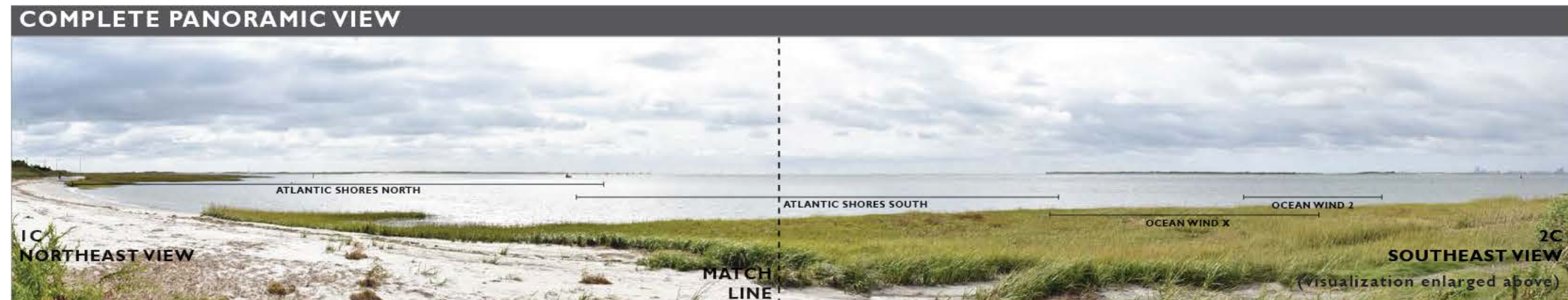


CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

2C: Southeast view showing all projects except Ocean Wind I Great Bay Boulevard Wildlife Management Area, Little Egg Harbor Township



Panoramic Field of View: 69°



Panoramic Field of View: 145°

WIND DIRECTION
SOUTHWEST
 Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

VIEWPOINT Playground Pier, Atlantic City

VISUALIZATIONS

VISUALIZATIONS INCLUDED	
3A	Northeast view: only Ocean Wind 1
3B	Northeast view: all visible projects
3C	Northeast view: all visible projects except Ocean Wind 1
4A	Southeast view: only Ocean Wind 1
4B	Southeast view: all visible projects
4C	Southeast view: all visible projects except Ocean Wind 1

CUMULATIVE PROJECT INFORMATION

OFFSHORE WIND PROJECT	THEORETICALLY VISIBLE FROM VIEWPOINT*	DISTANCE TO NEAREST WTG (mi)	DISTANCE TO FARTHEST WTG (mi)	NUMBER OF THEORETICALLY VISIBLE TURBINES	HORIZONTAL FIELD OF VIEW
New York Bight WEA	No	42.3	78.0	0	0°
Atlantic Shores North	Yes	17.4	34.5	82	25°
Atlantic Shores South	Yes	11.2	26.6	202	43°
Ocean Wind 1	Yes	15.2	24.7	99	41°
Ocean Wind 2	Yes	15.8	30.7	88	30.6°
Ocean Wind X	Yes	9.0	15.2	33	46.8°
Garden State	No	43.8	53.9	0	0°
Skip Jack	No	52.4	59.8	0	0°
US Wind	No	64.2	77.2	0	0°

*A distance of 40-miles from each viewpoint has been used to define the limits of theoretical visibility. This 40-mile distance aligns with the visual study area used in the Ocean Wind Visual Impact Assessment. For an observation elevation of 25 feet (typical of views from the boardwalks on the coast of New Jersey), the limit of Ocean Wind turbine hub visibility would be 37.3 miles due to earth curvature. While the blade tips are located above the horizon beyond this range, they are unlikely to be detected by observers at these distances due to the limits of visual acuity.

WIND DIRECTION

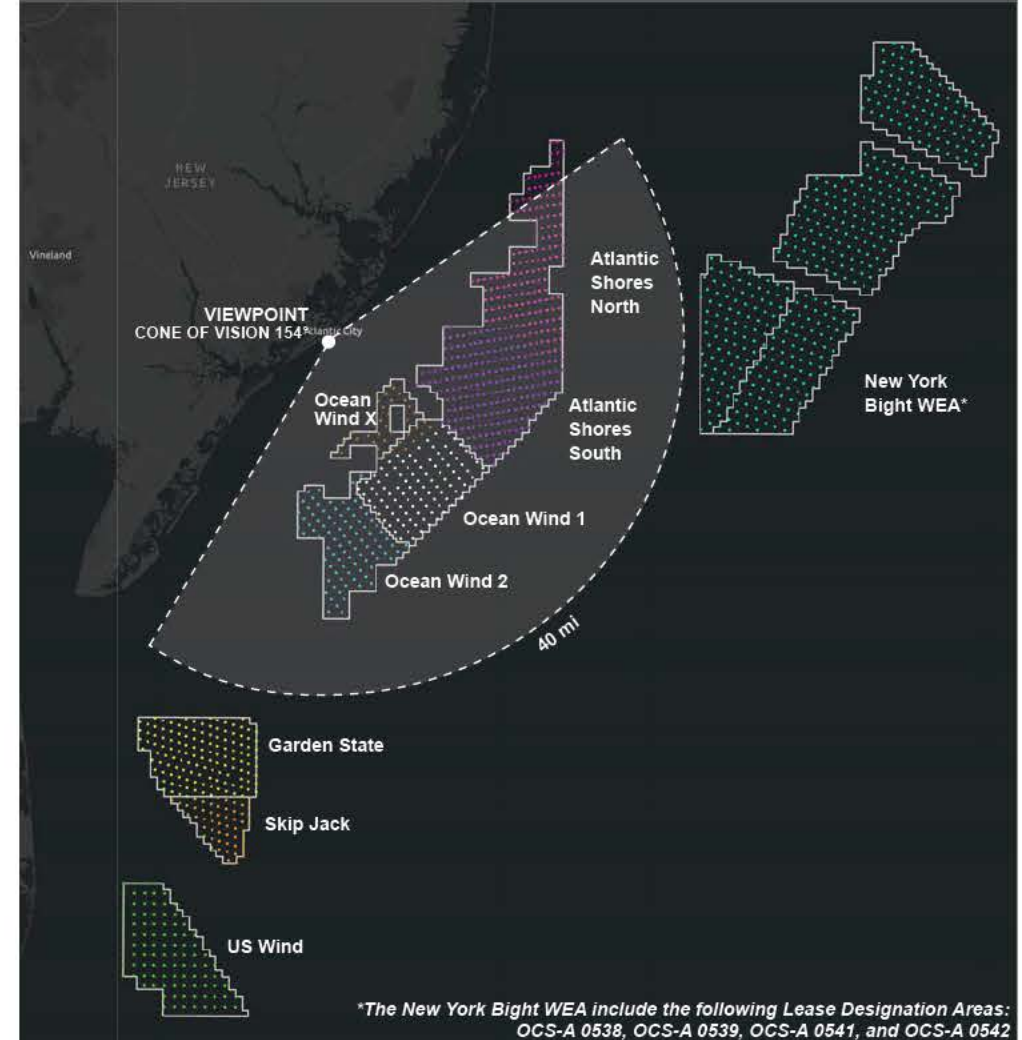
NORTHWEST

Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.

VIEWPOINT INFORMATION

LOCATION		PHOTO		ENVIRONMENTAL	
VIA KOP #	V14	Camera	NIKON D750	Temperature	79°
Date / Time	09/19/2018 / 12:28pm	Resolution	300 dpi	Humidity	77%
Latitude / Longitude	39.35259 / -74.43357	Focal Length	50 mm	Wind Speed	7 mph
Direction of View	Northeast to Southeast	Viewer Eye Elevation	24.33 ft	Weather Conditions	Broken Clouds

CUMULATIVE PROJECT MAP

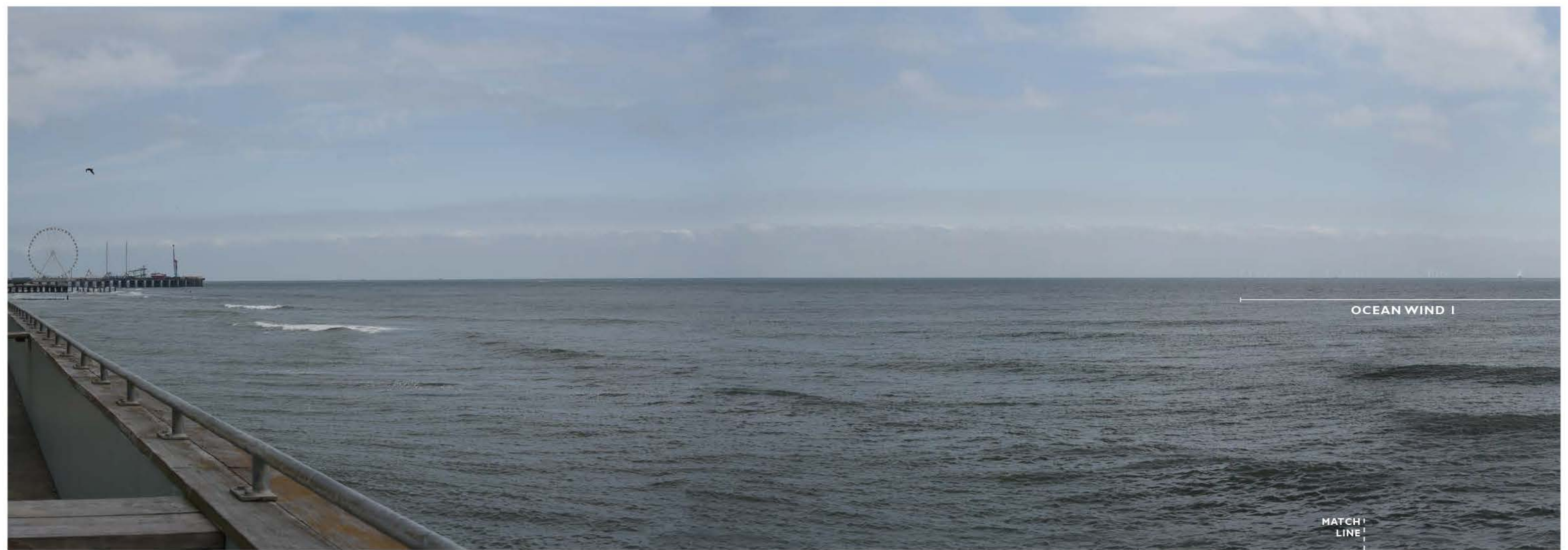


COMPLETE PANORAMIC VIEW

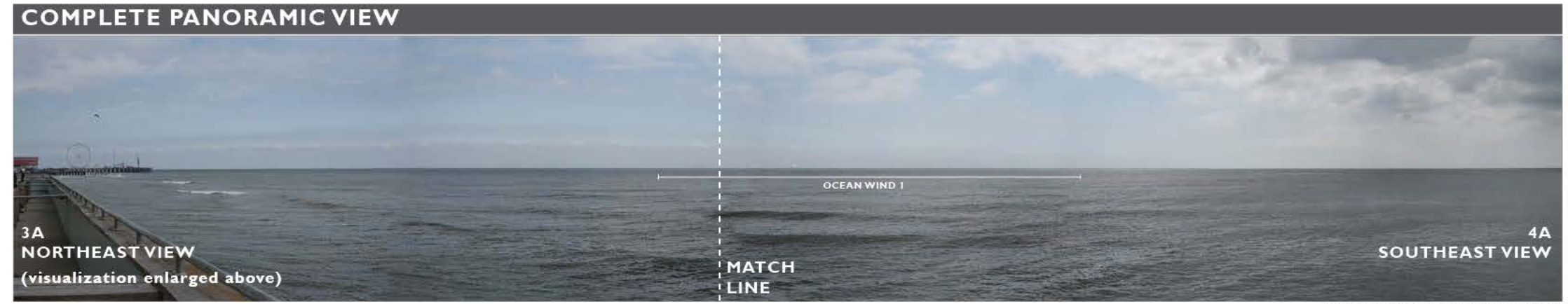


Panoramic Field of View: 154° (based on Nikon D750 camera lens, where a Normal Photo is 39.6°)

3A: Northeast view showing only Ocean Wind I
Playground Pier, Atlantic City



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.

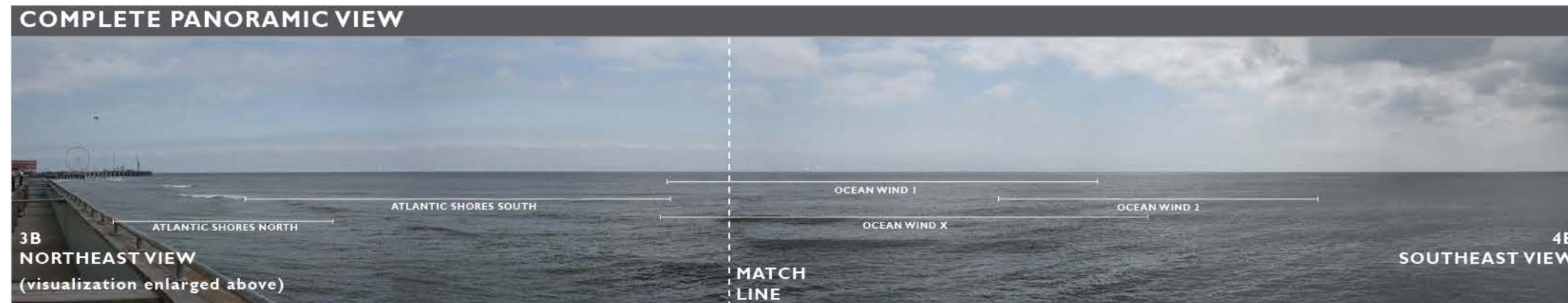


CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

3B: Northeast view showing all visible projects Playground Pier, Atlantic City



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

3C: Northeast view showing all projects except Ocean Wind I Playground Pier, Atlantic City



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



4A: Southeast view showing only Ocean Wind I
Playground Pier, Atlantic City



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.

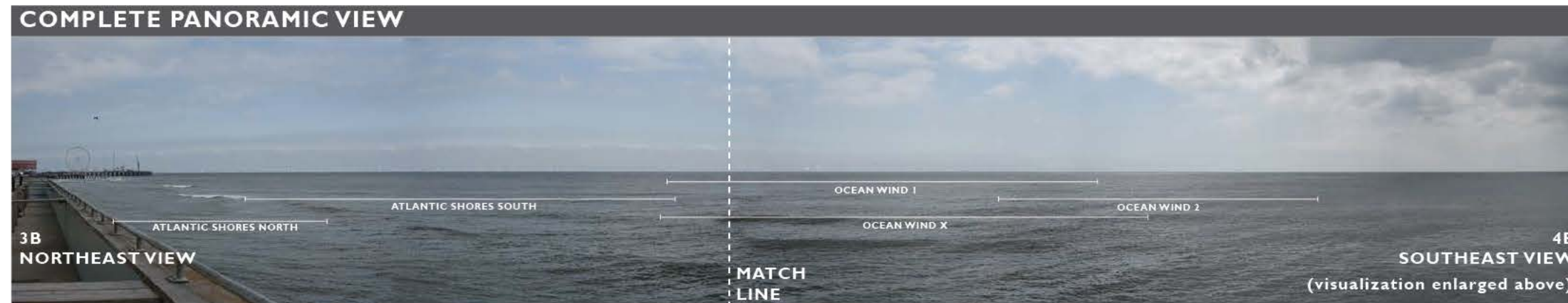


CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

4B: Southeast view showing all visible projects Playground Pier, Atlantic City



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

4C: Southeast view showing all projects except Ocean Wind I Playground Pier, Atlantic City



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

VIEWPOINT Playground Pier, Atlantic City

VISUALIZATIONS

VISUALIZATIONS INCLUDED	
3A	Northeast view: only Ocean Wind 1
3B	Northeast view: all visible projects
3C	Northeast view: all visible projects except Ocean Wind 1
4A	Southeast view: only Ocean Wind 1
4B	Southeast view: all visible projects
4C	Southeast view: all visible projects except Ocean Wind 1

CUMULATIVE PROJECT INFORMATION

OFFSHORE WIND PROJECT	THEORETICALLY VISIBLE FROM VIEWPOINT*	DISTANCE TO NEAREST WTG (mi)	DISTANCE TO FARTHEST WTG (mi)	NUMBER OF THEORETICALLY VISIBLE TURBINES	HORIZONTAL FIELD OF VIEW
New York Bight WEA	No	42.3	78.0	0	0°
Atlantic Shores North	Yes	17.4	34.5	82	25°
Atlantic Shores South	Yes	11.2	26.6	202	43°
Ocean Wind 1	Yes	15.2	24.7	99	41°
Ocean Wind 2	Yes	15.8	30.7	88	30.6°
Ocean Wind X	Yes	9.0	15.2	33	46.8°
Garden State	No	43.8	53.9	0	0°
Skip Jack	No	52.4	59.8	0	0°
US Wind	No	64.2	77.2	0	0°

*A distance of 40-miles from each viewpoint has been used to define the limits of theoretical visibility. This 40-mile distance aligns with the visual study area used in the Ocean Wind Visual Impact Assessment. For an observation elevation of 25 feet (typical of views from the boardwalks on the coast of New Jersey), the limit of Ocean Wind turbine hub visibility would be 37.3 miles due to earth curvature. While the blade tips are located above the horizon beyond this range, they are unlikely to be detected by observers at these distances due to the limits of visual acuity.

WIND DIRECTION

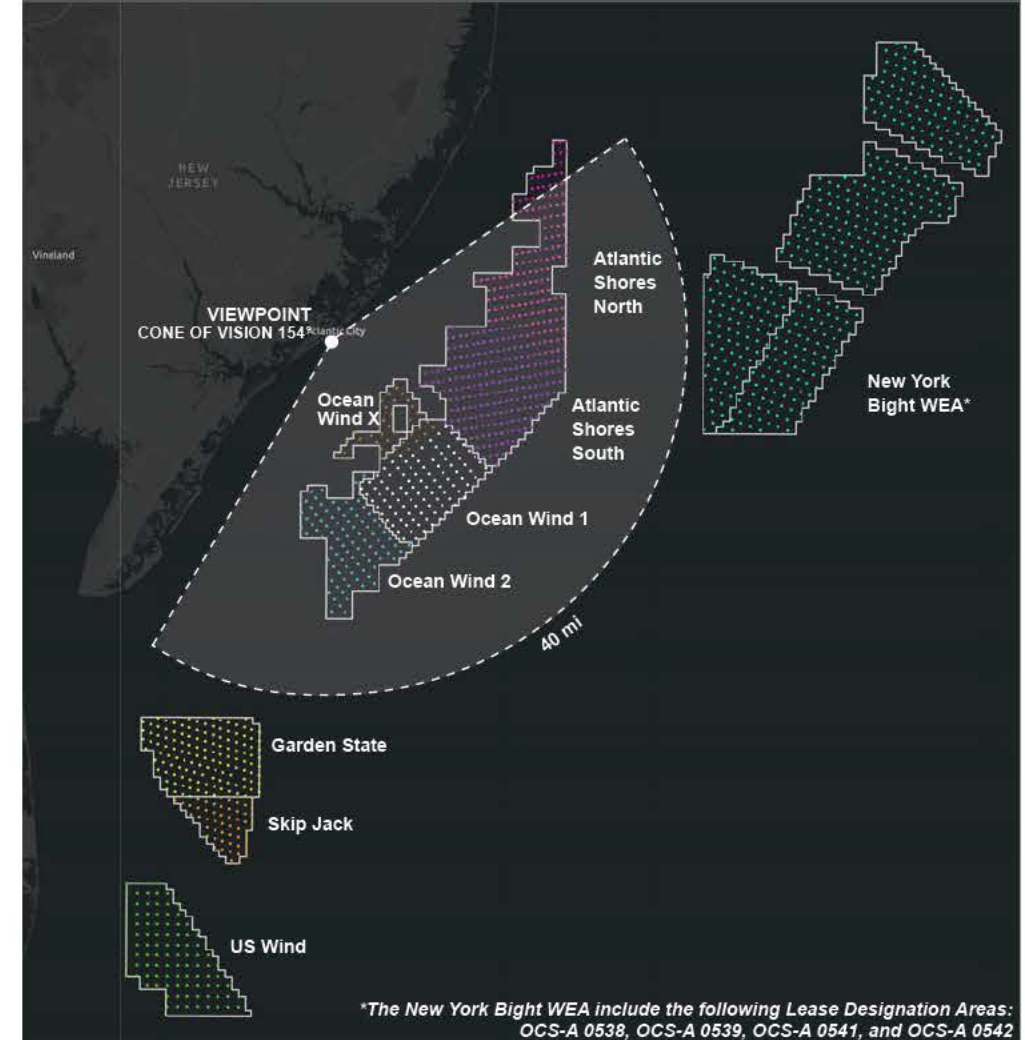
SOUTHWEST

Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.

VIEWPOINT INFORMATION

LOCATION		PHOTO		ENVIRONMENTAL	
VIA KOP #	V14	Camera	NIKON D750	Temperature	79°
Date / Time	09/19/2018 / 12:28pm	Resolution	300 dpi	Humidity	77%
Latitude / Longitude	39.35259 / -74.43357	Focal Length	50 mm	Wind Speed	7 mph
Direction of View	Northeast to Southeast	Viewer Eye Elevation	24.33 ft	Weather Conditions	Broken Clouds

CUMULATIVE PROJECT MAP



COMPLETE PANORAMIC VIEW



Panoramic Field of View: 154° (based on Nikon D750 camera lens, where a Normal Photo is 39.6°)

3A: Northeast view showing only Ocean Wind I
Playground Pier, Atlantic City



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.

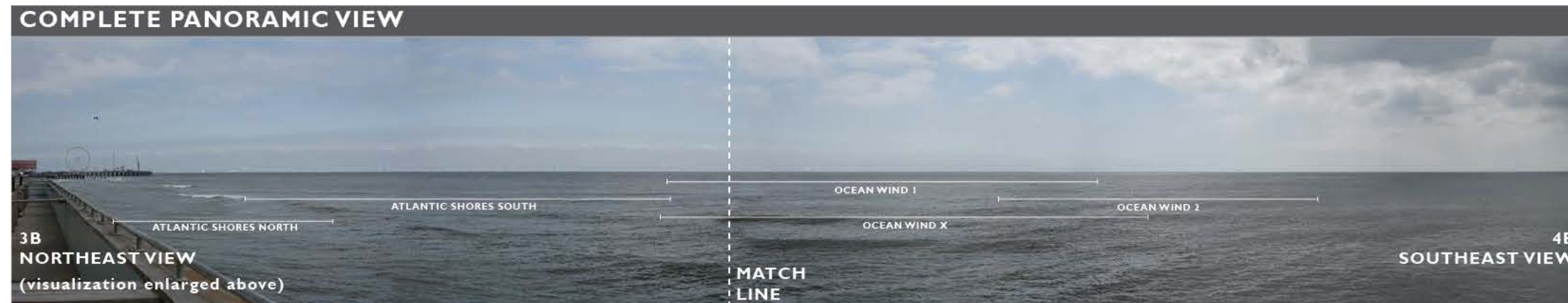


CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

3B: Northeast view showing all visible projects Playground Pier, Atlantic City



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

3C: Northeast view showing all projects except Ocean Wind I Playground Pier, Atlantic City



Panoramic Field of View: 76°



Panoramic Field of View: 154°

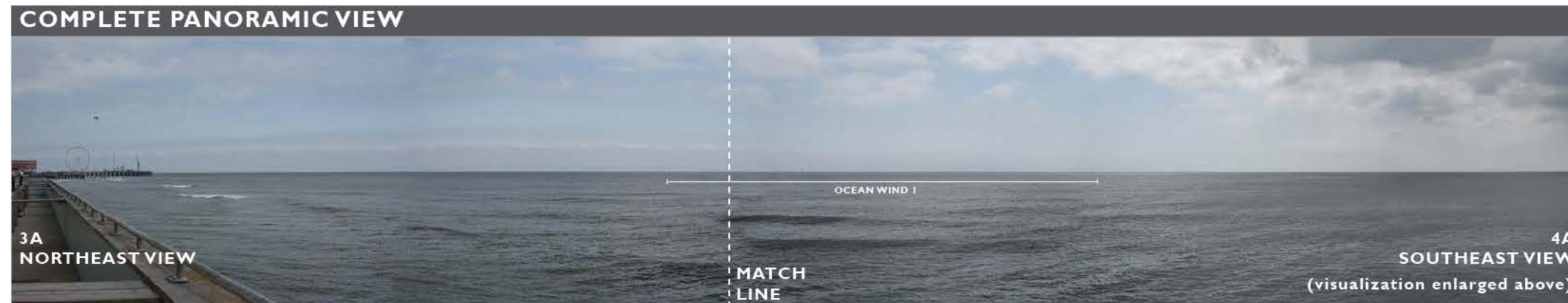
WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



4A: Southeast view showing only Ocean Wind I
Playground Pier, Atlantic City



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.

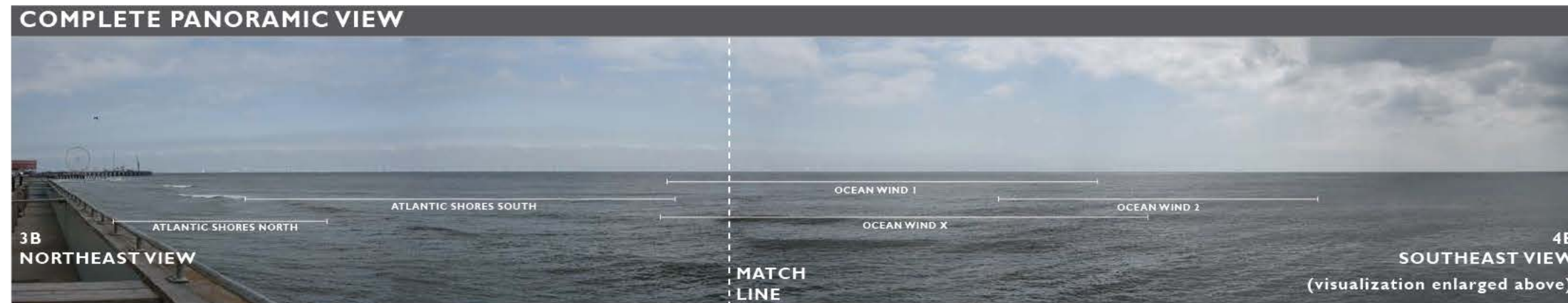


CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

4B: Southeast view showing all visible projects Playground Pier, Atlantic City



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

4C: Southeast view showing all projects except Ocean Wind I Playground Pier, Atlantic City



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

VIEWPOINT

Corson's Inlet State Park, Ocean City

VISUALIZATIONS

VISUALIZATIONS INCLUDED	
5A	Northeast view: only Ocean Wind 1
5B	Northeast view: all visible projects
5C	Northeast view: all visible projects except Ocean Wind 1
6A	Southeast view: only Ocean Wind 1
6B	Southeast view: all visible projects
6C	Southeast view: all visible projects except Ocean Wind 1

CUMULATIVE PROJECT INFORMATION

OFFSHORE WIND PROJECT	THEORETICALLY VISIBLE FROM VIEWPOINT*	DISTANCE TO NEAREST WTG (mi)	DISTANCE TO FARTHEST WTG (mi)	NUMBER OF THEORETICALLY VISIBLE TURBINES	HORIZONTAL FIELD OF VIEW
New York Bight WEA	No	53.3	91.7	0	0°
Atlantic Shores North	Yes	31.3	49.2	101	25°
Atlantic Shores South	Yes	21.6	38.2	202	43°
Ocean Wind 1	Yes	16.2	29.1	99	34°
Ocean Wind 2	Yes	11.7	24.6	88	40.8°
Ocean Wind X	Yes	13.0	22.6	33	26.5°
Garden State	Yes	33.0	42.1	112	22°
Skip Jack	No	41.9	49.3	0	0°
US Wind	No	52.2	65.8	0	0°

*A distance of 40-miles from each viewpoint has been used to define the limits of theoretical visibility. This 40-mile distance aligns with the visual study area used in the Ocean Wind Visual Impact Assessment. For an observation elevation of 25 feet (typical of views from the boardwalks on the coast of New Jersey), the limit of Ocean Wind turbine hub visibility would be 37.3 miles due to earth curvature. While the blade tips are located above the horizon beyond this range, they are unlikely to be detected by observers at these distances due to the limits of visual acuity.

WIND DIRECTION

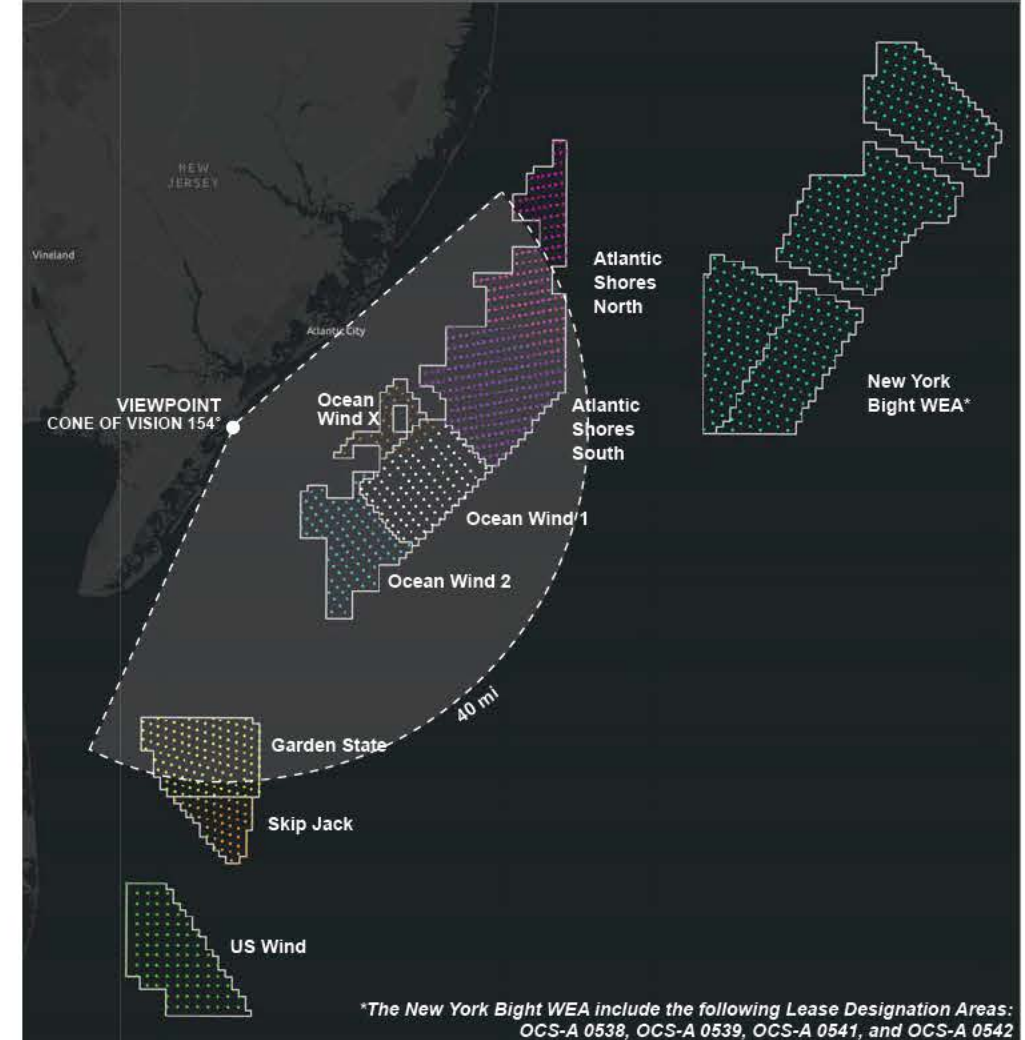
NORTHWEST

Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.

VIEWPOINT INFORMATION

LOCATION		PHOTO		ENVIRONMENTAL	
VIA KOP #	V19	Camera	NIKON D750	Temperature	90°
Date / Time	08/15/2018 / 4:55pm	Resolution	300 dpi	Humidity	45%
Latitude / Longitude	39.213474° / -74.642627°	Focal Length	50 mm	Wind Speed	12 mph
Direction of View	Northeast to Southeast	Viewer Eye Elevation	15 ft	Weather Conditions	Sunny

CUMULATIVE PROJECT MAP



COMPLETE PANORAMIC VIEW



Panoramic Field of View: 154° (based on Nikon D750 camera lens, where a Normal Photo is 39.6°)

CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

5A: Northeast view showing only Ocean Wind I Corson's Inlet State Park, Ocean City



Panoramic Field of View: 80°



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

5B: Northeast view showing all visible projects Corson's Inlet State Park, Ocean City



Panoramic Field of View: 80°



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
 Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

5C: Northeast view showing all projects except Ocean Wind I Corson's Inlet State Park, Ocean City



Panoramic Field of View: 80°



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



6A: Southeast view showing only Ocean Wind I
Corson's Inlet State Park, Ocean City



Panoramic Field of View: 80°
Ocean Wind 1 not in view



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

6B: Southeast view showing all visible projects Corson's Inlet State Park



Panoramic Field of View: 80°
Ocean Wind 1 not in view



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

6C: Southeast view showing all projects except Ocean Wind I Corson's Inlet State Park



Panoramic Field of View: 80°
Ocean Wind 1 not in view



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

VIEWPOINT

Corson's Inlet State Park, Ocean City

VISUALIZATIONS

VISUALIZATIONS INCLUDED	
5A	Northeast view: only Ocean Wind 1
5B	Northeast view: all visible projects
5C	Northeast view: all visible projects except Ocean Wind 1
6A	Southeast view: only Ocean Wind 1
6B	Southeast view: all visible projects
6C	Southeast view: all visible projects except Ocean Wind 1

CUMULATIVE PROJECT INFORMATION

OFFSHORE WIND PROJECT	THEORETICALLY VISIBLE FROM VIEWPOINT*	DISTANCE TO NEAREST WTG (mi)	DISTANCE TO FARTHEST WTG (mi)	NUMBER OF THEORETICALLY VISIBLE TURBINES	HORIZONTAL FIELD OF VIEW
New York Bight WEA	No	53.3	91.7	0	0°
Atlantic Shores North	Yes	31.3	49.2	101	25°
Atlantic Shores South	Yes	21.6	38.2	202	43°
Ocean Wind 1	Yes	16.2	29.1	99	34°
Ocean Wind 2	Yes	11.7	24.6	88	40.8°
Ocean Wind X	Yes	13.0	22.6	33	26.5°
Garden State	Yes	33.0	42.1	112	22°
Skip Jack	No	41.9	49.3	0	0°
US Wind	No	52.2	65.8	0	0°

*A distance of 40-miles from each viewpoint has been used to define the limits of theoretical visibility. This 40-mile distance aligns with the visual study area used in the Ocean Wind Visual Impact Assessment. For an observation elevation of 25 feet (typical of views from the boardwalks on the coast of New Jersey), the limit of Ocean Wind turbine hub visibility would be 37.3 miles due to earth curvature. While the blade tips are located above the horizon beyond this range, they are unlikely to be detected by observers at these distances due to the limits of visual acuity.

WIND DIRECTION

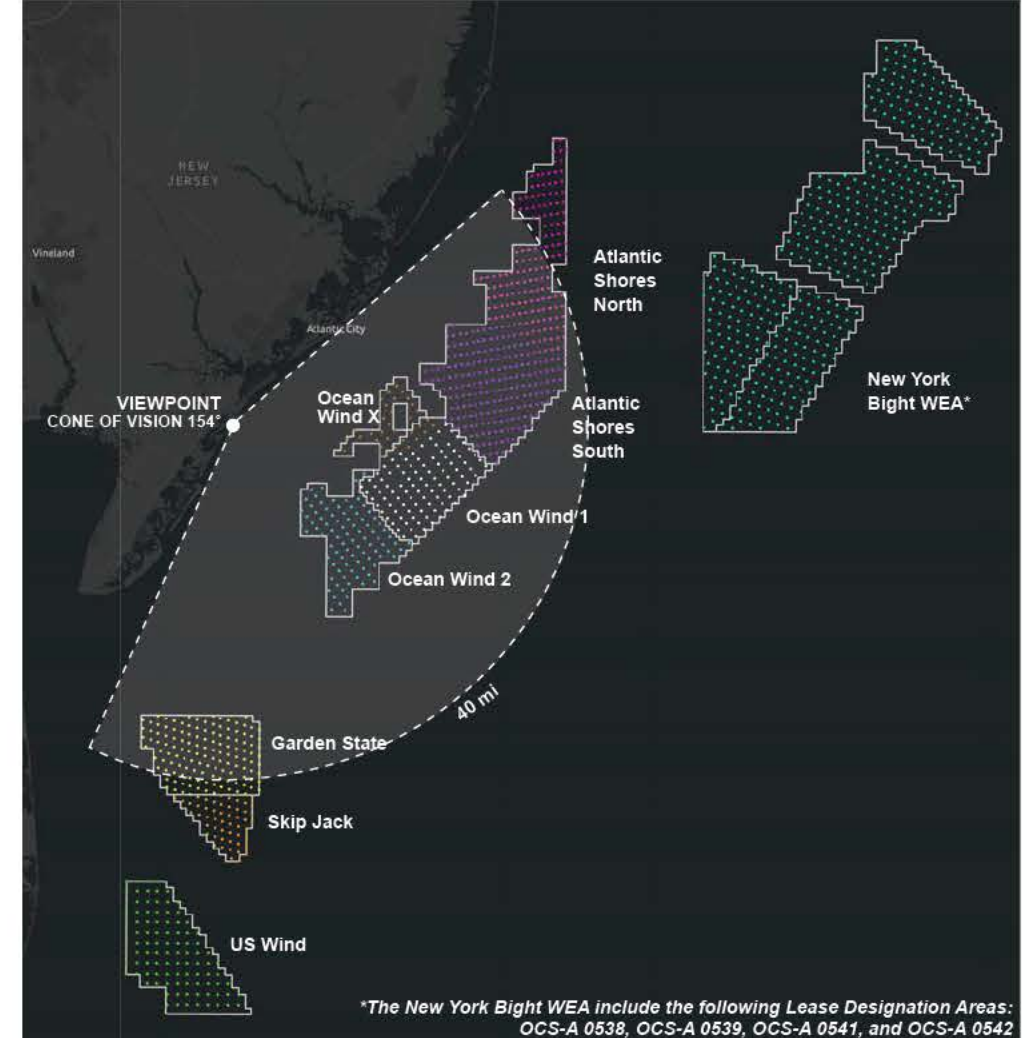
SOUTHWEST

Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.

VIEWPOINT INFORMATION

LOCATION		PHOTO		ENVIRONMENTAL	
VIA KOP #	V19	Camera	NIKON D750	Temperature	90°
Date / Time	08/15/2018 / 4:55pm	Resolution	300 dpi	Humidity	45%
Latitude / Longitude	39.213474° / -74.642627°	Focal Length	50 mm	Wind Speed	12 mph
Direction of View	Northeast to Southeast	Viewer Eye Elevation	15 ft	Weather Conditions	Sunny

CUMULATIVE PROJECT MAP



COMPLETE PANORAMIC VIEW



Panoramic Field of View: 154° (based on Nikon D750 camera lens, where a Normal Photo is 39.6°)

CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

5A: Northeast view showing only Ocean Wind I Corson's Inlet State Park, Ocean City



Panoramic Field of View: 80°



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

5B: Northeast view showing all visible projects Corson's Inlet State Park, Ocean City



Panoramic Field of View: 80°



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

5C: Northeast view showing all projects except Ocean Wind I Corson's Inlet State Park, Ocean City



Panoramic Field of View: 80°



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



6A: Southeast view showing only Ocean Wind I
Corson's Inlet State Park, Ocean City



Panoramic Field of View: 80°
Ocean Wind 1 not in view



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

6B: Southeast view showing all visible projects Corson's Inlet State Park



Panoramic Field of View: 80°
Ocean Wind 1 not in view



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



6C: Southeast view showing all projects except Ocean Wind I
Corson's Inlet State Park



Panoramic Field of View: 80°
Ocean Wind 1 not in view



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

VIEWPOINT

Stone Harbor Beach Access, Stone Harbor

VISUALIZATIONS

VISUALIZATIONS INCLUDED	
7A	Northeast view: only Ocean Wind 1
7B	Northeast view: all visible projects
7C	Northeast view: all visible projects except Ocean Wind 1
8A	Southeast view: only Ocean Wind 1
8B	Southeast view: all visible projects
8C	Southeast view: all visible projects except Ocean Wind 1

CUMULATIVE PROJECT INFORMATION

OFFSHORE WIND PROJECT	THEORETICALLY VISIBLE FROM VIEWPOINT*	DISTANCE TO NEAREST WTG (mi)	DISTANCE TO FARTHEST WTG (mi)	NUMBER OF THEORETICALLY VISIBLE TURBINES	HORIZONTAL FIELD OF VIEW
New York Bight WEA	No	60.2	101.6	0	0°
Atlantic Shores North	No	41.8	61.2	0	0°
Atlantic Shores South	Yes	31.3	47.2	184	24°
Ocean Wind 1	Yes	20.9	35.2	99	34°
Ocean Wind 2	Yes	13.7	26.0	88	44.4°
Ocean Wind X	Yes	20.3	30.6	33	13.9°
Garden State	Yes	22.0	31.5	131	32°
Skip Jack	Yes	31.0	38.8	52	16°
US Wind	No	40.5	54.7	0	0°

*A distance of 40-miles from each viewpoint has been used to define the limits of theoretical visibility. This 40-mile distance aligns with the visual study area used in the Ocean Wind Visual Impact Assessment. For an observation elevation of 25 feet (typical of views from the boardwalks on the coast of New Jersey), the limit of Ocean Wind turbine hub visibility would be 37.3 miles due to earth curvature. While the blade tips are located above the horizon beyond this range, they are unlikely to be detected by observers at these distances due to the limits of visual acuity.

WIND DIRECTION

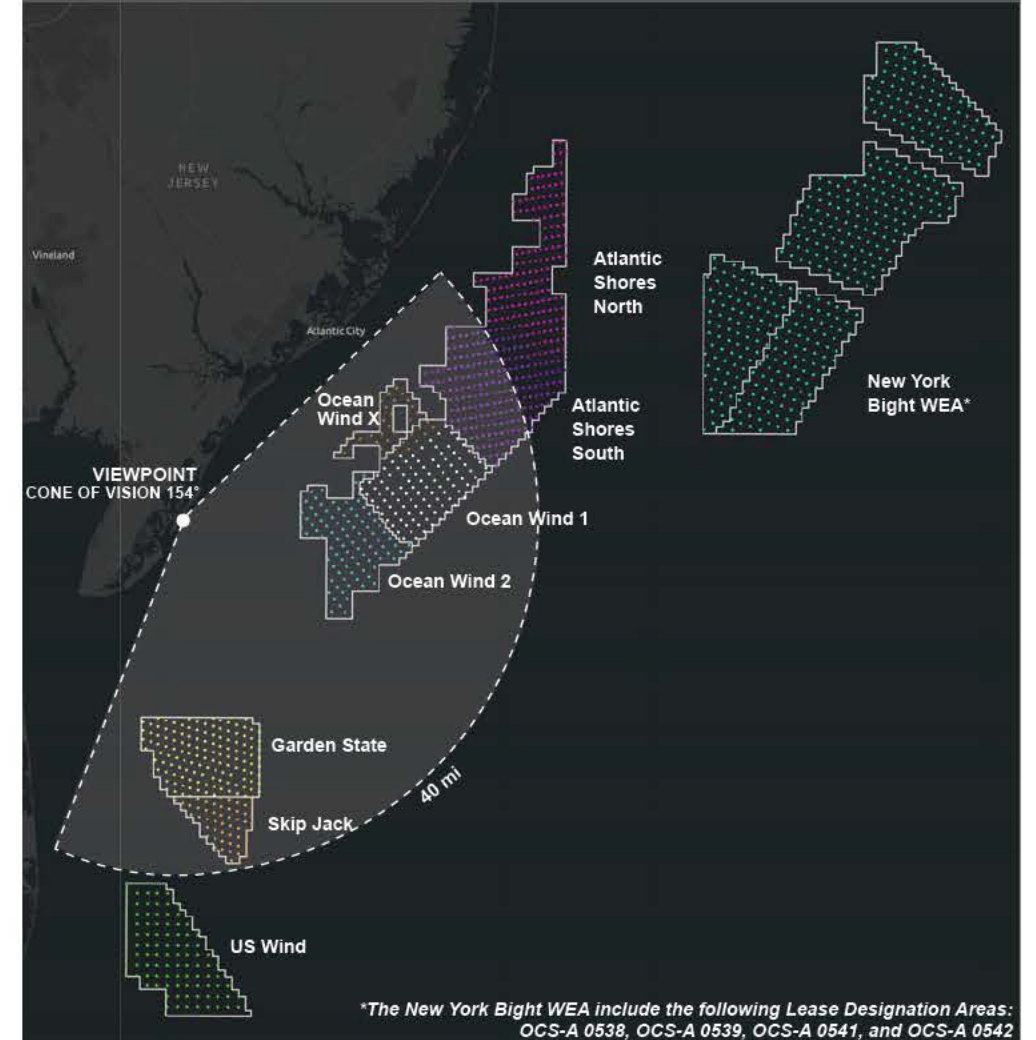
NORTHWEST

Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.

VIEWPOINT INFORMATION

LOCATION		PHOTO		ENVIRONMENTAL	
VIA KOP #	V22	Camera	NIKON D750	Temperature	83°
Date / Time	08/14/2018 / 4:22pm	Resolution	300 dpi	Humidity	63%
Latitude / Longitude	39.052389° / -74.754855°	Focal Length	50 mm	Wind Speed	14 mph
Direction of View	Northeast to Southeast	Viewer Eye Elevation	13 ft	Weather Conditions	Partly Cloudy

CUMULATIVE PROJECT MAP



COMPLETE PANORAMIC VIEW



Panoramic Field of View: 154° (based on Nikon D750 camera lens, where a Normal Photo is 39.6°)

CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

7A: Northeast view showing only Ocean Wind I Stone Harbor Beach Access, Stone Harbor



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

7B: Northeast view showing all visible projects Stone Harbor Beach Access, Stone Harbor



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
 Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

7C: Northeast view showing all projects except Ocean Wind I Stone Harbor Beach Access, Stone Harbor



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
 Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

8A: Southeast view showing only Ocean Wind I Stone Harbor Beach Access, Stone Harbor



Panoramic Field of View: 76°
Ocean Wind 1 not in view



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

8B: Southeast view showing all visible projects Stone Harbor Beach Access, Stone Harbor



Panoramic Field of View: 76°
Ocean Wind 1 not in view



Panoramic Field of View: 154°

WIND DIRECTION
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CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

8C: Southeast view showing all projects except Ocean Wind I Stone Harbor Beach Access, Stone Harbor



Panoramic Field of View: 76°
Ocean Wind 1 not in view



Panoramic Field of View: 154°

WIND DIRECTION
NORTHWEST
Turbine rotors and blades are modeled in all projects to face northwest to approximate the most visually impacting scenario.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

VIEWPOINT

Stone Harbor Beach Access, Stone Harbor

VISUALIZATIONS

VISUALIZATIONS INCLUDED	
7A	Northeast view: only Ocean Wind 1
7B	Northeast view: all visible projects
7C	Northeast view: all visible projects except Ocean Wind 1
8A	Southeast view: only Ocean Wind 1
8B	Southeast view: all visible projects
8C	Southeast view: all visible projects except Ocean Wind 1

CUMULATIVE PROJECT INFORMATION

OFFSHORE WIND PROJECT	THEORETICALLY VISIBLE FROM VIEWPOINT*	DISTANCE TO NEAREST WTG (mi)	DISTANCE TO FARTHEST WTG (mi)	NUMBER OF THEORETICALLY VISIBLE TURBINES	HORIZONTAL FIELD OF VIEW
New York Bight WEA	No	60.2	101.6	0	0°
Atlantic Shores North	No	41.8	61.2	0	0°
Atlantic Shores South	Yes	31.3	47.2	184	24°
Ocean Wind 1	Yes	20.9	35.2	99	34°
Ocean Wind 2	Yes	13.7	26.0	88	44.4°
Ocean Wind X	Yes	20.3	30.6	33	13.9°
Garden State	Yes	22.0	31.5	131	32°
Skip Jack	Yes	31.0	38.8	52	16°
US Wind	No	40.5	54.7	0	0°

*A distance of 40-miles from each viewpoint has been used to define the limits of theoretical visibility. This 40-mile distance aligns with the visual study area used in the Ocean Wind Visual Impact Assessment. For an observation elevation of 25 feet (typical of views from the boardwalks on the coast of New Jersey), the limit of Ocean Wind turbine hub visibility would be 37.3 miles due to earth curvature. While the blade tips are located above the horizon beyond this range, they are unlikely to be detected by observers at these distances due to the limits of visual acuity.

WIND DIRECTION

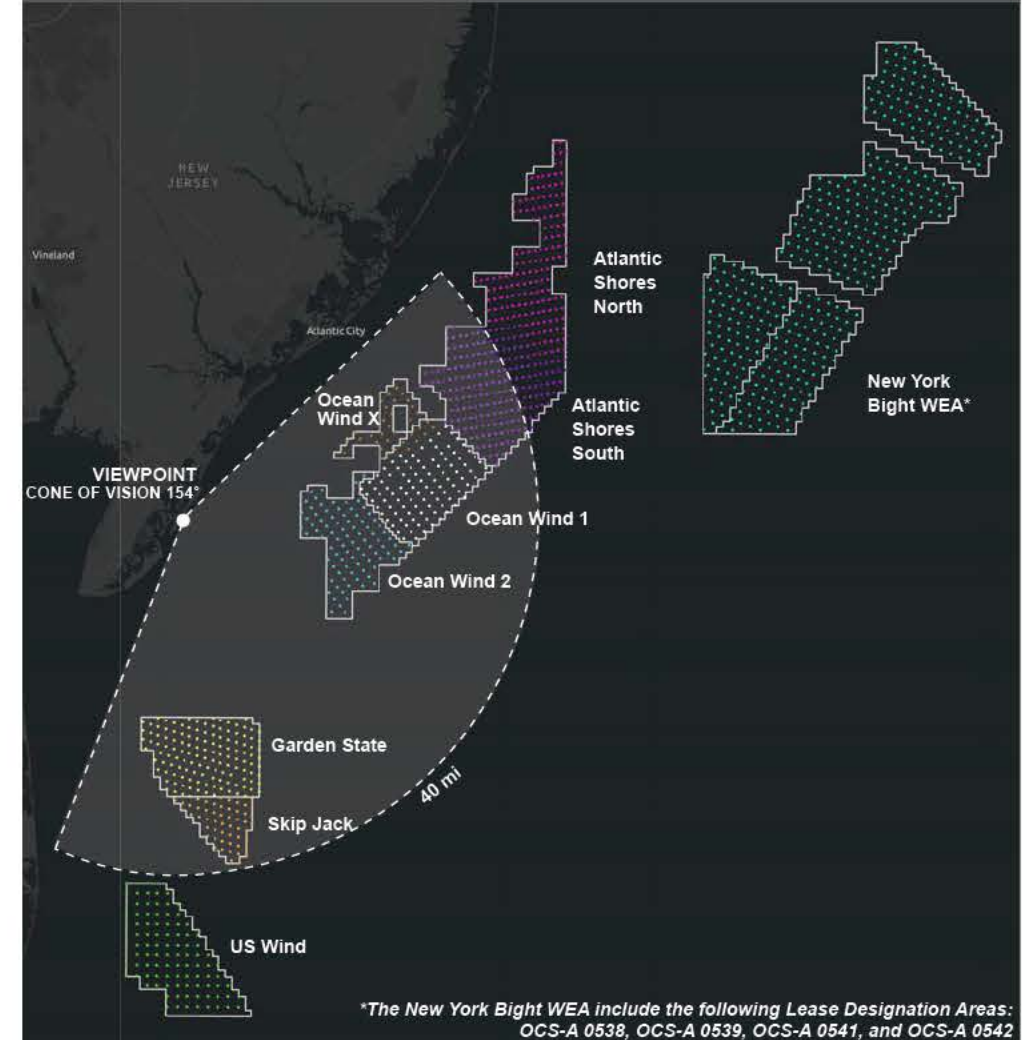
SOUTHWEST

Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.

VIEWPOINT INFORMATION

LOCATION		PHOTO		ENVIRONMENTAL	
VIA KOP #	V22	Camera	NIKON D750	Temperature	83°
Date / Time	08/14/2018 / 4:22pm	Resolution	300 dpi	Humidity	63%
Latitude / Longitude	39.052389° / -74.754855°	Focal Length	50 mm	Wind Speed	14 mph
Direction of View	Northeast to Southeast	Viewer Eye Elevation	13 ft	Weather Conditions	Partly Cloudy

CUMULATIVE PROJECT MAP



COMPLETE PANORAMIC VIEW



Panoramic Field of View: 154° (based on Nikon D750 camera lens, where a Normal Photo is 39.6°)

CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

7A: Northeast view showing only Ocean Wind I Stone Harbor Beach Access, Stone Harbor



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

7B: Northeast view showing all visible projects Stone Harbor Beach Access, Stone Harbor



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

7C: Northeast view showing all projects except Ocean Wind I Stone Harbor Beach Access, Stone Harbor



Panoramic Field of View: 76°



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

8A: Southeast view showing only Ocean Wind I Stone Harbor Beach Access, Stone Harbor



Panoramic Field of View: 76°
Ocean Wind 1 not in view



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

8B: Southeast view showing all visible projects Stone Harbor Beach Access, Stone Harbor



Panoramic Field of View: 76°
Ocean Wind 1 not in view



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



CUMULATIVE EFFECTS ANALYSIS FOR OCEAN WIND I

8C: Southeast view showing all projects except Ocean Wind I Stone Harbor Beach Access, Stone Harbor



Panoramic Field of View: 76°
Ocean Wind 1 not in view



Panoramic Field of View: 154°

WIND DIRECTION
SOUTHWEST
Turbine rotors and blades are modeled in all projects to face southwest in accordance with prevailing winds.



**ATTACHMENT M-3
VISUAL SIMULATIONS OF ACTION ALTERNATIVES**

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V06. Great Bay Boulevard Wildlife Management Area

Little Egg Harbor Township, Ocean County

LANDSCAPE INFORMATION

Field Identification Number. 274

Context Image Dates. 20 September 2018

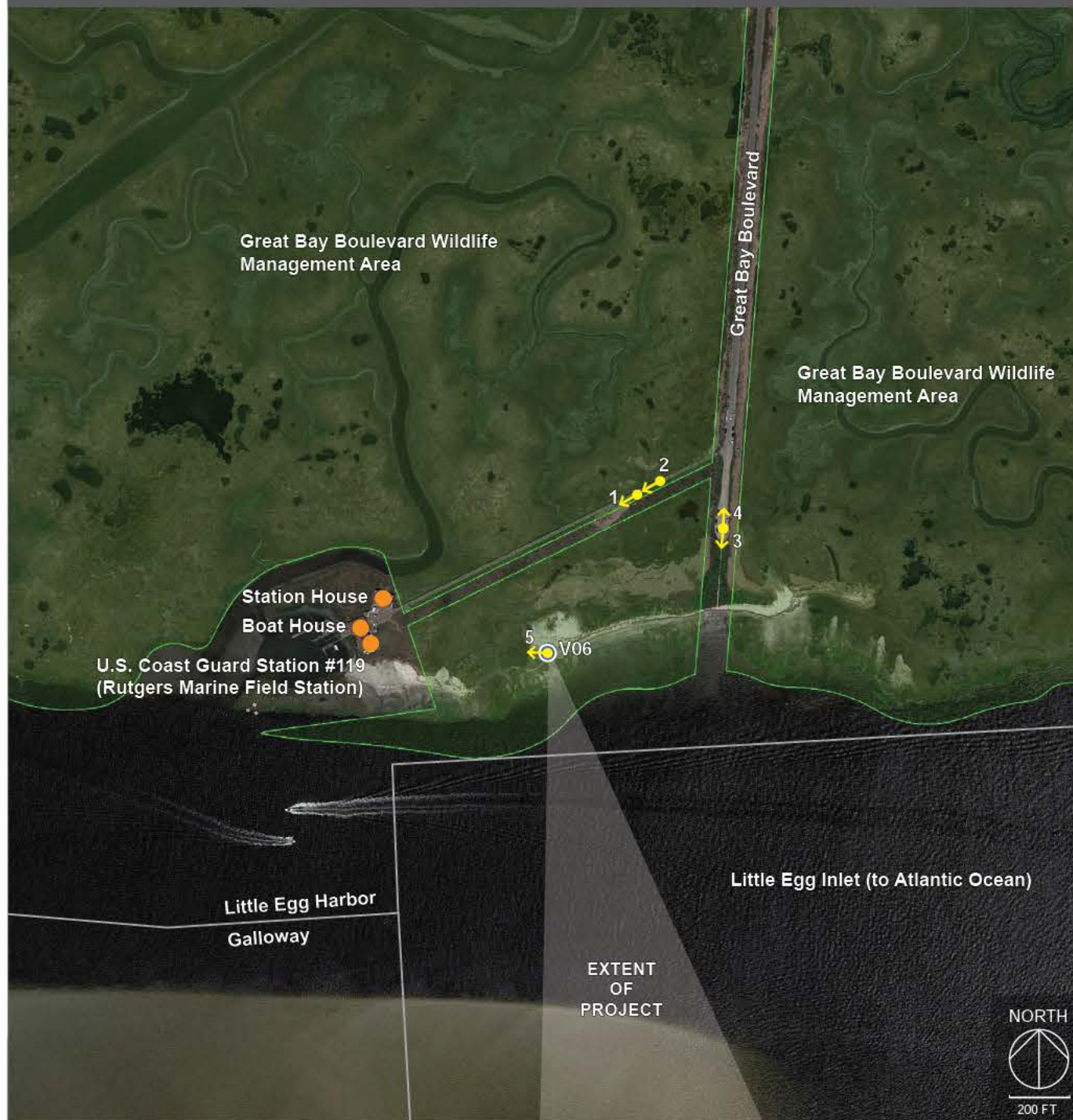
Site Map Aerial Date. 24 May 2018

Physiographic Area. Marsh + Bay

Landscape Similarity Zone (LSZ). Marshland

Scenic Resources. Viewpoint from Great Bay Boulevard Wildlife Management Area. Viewpoint near three structures eligible for the NRHP: U.S. Coast Guard Station #119 (Rutgers Marine Field Station); Station House; and Boat House.

SITE MAP



CONTEXT IMAGES



1. View looking southwest from access gate on boardwalk toward U.S. Coast Guard Station #119 (Rutgers Marine Field Station). Atlantic City skyline is visible on left side of image.



2. View looking southwest from boardwalk toward U.S. Coast Guard Station #119 (Rutgers Marine Field Station) access gate.



3. View looking south from end of Great Bay Boulevard toward beach access.



4. View looking north from the end of Great Bay Boulevard.



5. View looking west from visualization location on beach toward U.S. Coast Guard Station #119 (Rutgers Marine Field Station).

V06. Great Bay Boulevard Wildlife Management Area

Little Egg Harbor Township, Ocean County

PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW

CONTEXT MAP



ALTERNATIVES ANALYSIS

Original Layout: Turbine layout submitted in COP.

Turbine Dimensions: 906 ft blade tip height, 512 ft hub height, 788 ft rotor diameter.

TURBINE DIMENSIONS

BLADE TIP HEIGHT
906 ft (276 m)

HUB HEIGHT
512 ft (156 m)

ROTOR DIAMETER
788 ft (240 m)

Indicative Turbines

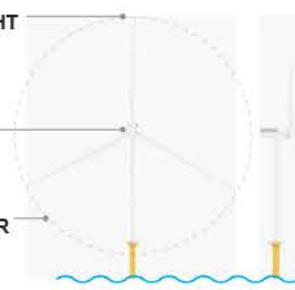


IMAGE DATA

LOCATION

Date	20 September 2018
Time	9:40 AM
Latitude	39.508809°
Longitude	-74.322008°
Direction of View	South
LSZ	Marshland

PHOTO

Field ID	274
Camera	NIKON D5500
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	7'

PROJECT INFRASTRUCTURE

Number of Turbines	99
Number of offshore Substations	3

ENVIRONMENTAL

Temperature (°F)	72°
Humidity	73%
Visibility	10 mi
Wind Direction	E
Wind Speed	7 mph
Weather Conditions	Overcast

PROJECT VIEW

Distance to Project	21.85 miles
Project Horizontal Field of View (HFOV)	30°

V06

Great Bay Boulevard Wildlife Management Area

Little Egg Harbor Township, Ocean County

OCEAN WIND

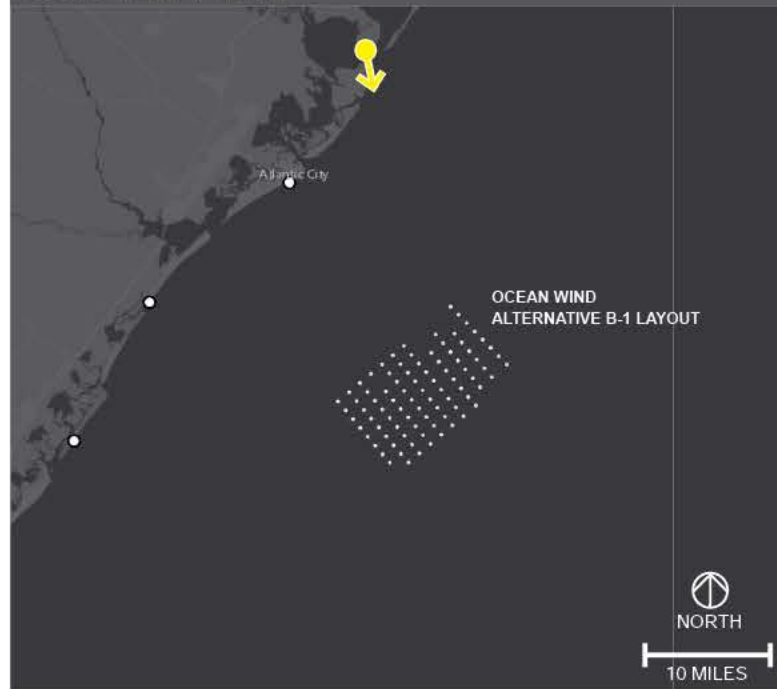
tjd&a | Landscape Architects & Planners

PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW

CONTEXT MAP

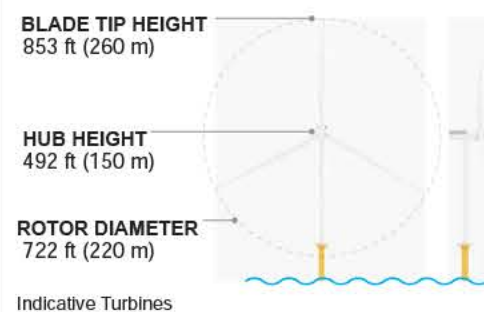


ALTERNATIVES ANALYSIS

Alternative B-1: Exclusion of up to nine turbine positions in the first two shoreward strings of turbines that includes F01 to K01 and B02 to D02.

Turbine dimensions: 853 ft blade tip height, 492 ft hub height, 722 ft rotor diameter.

TURBINE DIMENSIONS



Indicative Turbines

IMAGE DATA

LOCATION

Date	20 September 2018
Time	9:40 AM
Latitude	39.508809°
Longitude	-74.322008°
Direction of View	South
LSZ	Marshland

PHOTO

Field ID	274
Camera	NIKON D5500
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	7'

PROJECT INFRASTRUCTURE

Number of Turbines	89
Number of offshore Substations	3

ENVIRONMENTAL

Temperature (°F)	72°
Humidity	73%
Visibility	10 mi
Wind Direction	E
Wind Speed	7 mph
Weather Conditions	Overcast

PROJECT VIEW

Distance to Project	21.85 miles
Project Horizontal Field of View (HFOV)	28°

V06

Great Bay Boulevard Wildlife Management Area

Little Egg Harbor Township, Ocean County

OCEAN WIND

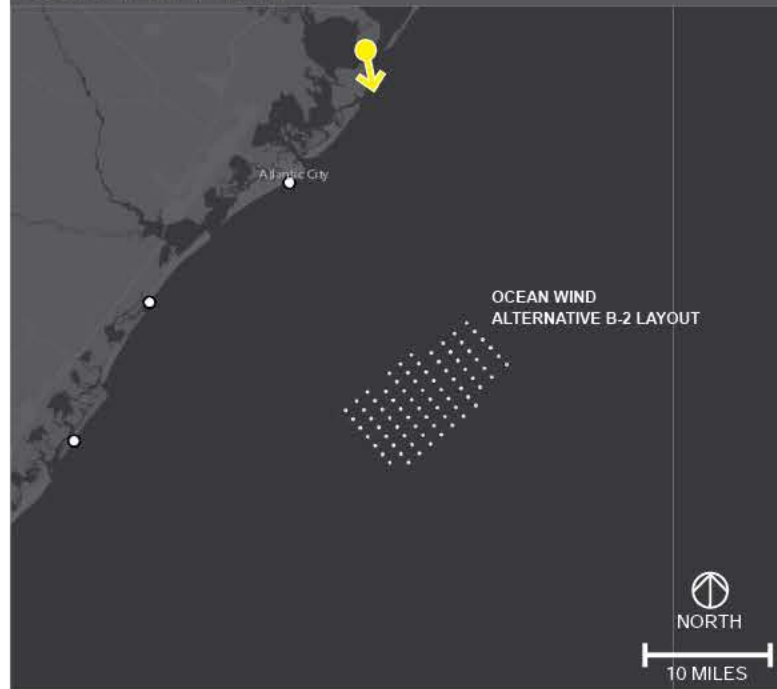
tjd&a | Landscape Architects & Planners

PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW

CONTEXT MAP



ALTERNATIVES ANALYSIS

Alternative B-2: Exclusion of up to 19 turbine positions in the first three shoreward strings of turbines that includes F01 to K01, A02 to K02, A03 and C03.

Turbine Dimensions: 906 ft blade tip height, 512 ft hub height, 788 ft rotor diameter.

TURBINE DIMENSIONS

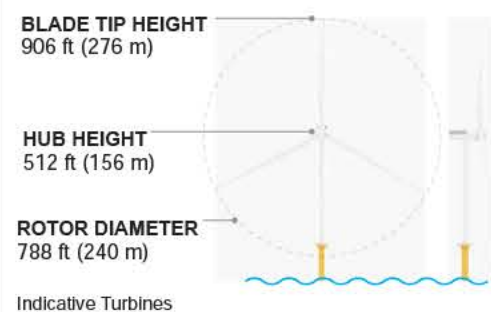


IMAGE DATA

LOCATION

Date	20 September 2018
Time	9:40 AM
Latitude	39.508809°
Longitude	-74.322008°
Direction of View	South
LSZ	Marshland

PHOTO

Field ID	274
Camera	NIKON D5500
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	7'

PROJECT INFRASTRUCTURE

Number of Turbines	79
Number of offshore Substations	3

ENVIRONMENTAL

Temperature (°F)	72°
Humidity	73%
Visibility	10 mi
Wind Direction	E
Wind Speed	7 mph
Weather Conditions	Overcast

PROJECT VIEW

Distance to Project	23.53 miles
Project Horizontal Field of View (HFOV)	27°

V06

Great Bay Boulevard Wildlife Management Area

Little Egg Harbor Township, Ocean County

OCEAN WIND

tjd&a | Landscape Architects & Planners

PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW

CONTEXT MAP



ALTERNATIVES ANALYSIS

Alternative C-1: Exclusion of eight turbine positions (A02 to A09), relocation of eight turbine positions to the northern portion of the Ocean Wind Lease Area (C00 to F00 and B01 to E01).

Turbine Dimensions: 906 ft blade tip height, 512 ft hub height, 788 ft rotor diameter.

TURBINE DIMENSIONS

BLADE TIP HEIGHT
906 ft (276 m)

HUB HEIGHT
512 ft (156 m)

ROTOR DIAMETER
788 ft (240 m)

Indicative Turbines

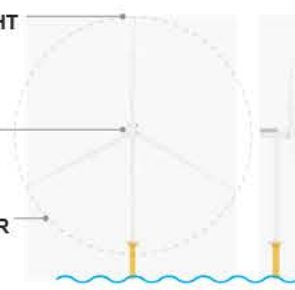


IMAGE DATA

LOCATION

Date	20 September 2018
Time	9:40 AM
Latitude	39.508809°
Longitude	-74.322008°
Direction of View	South
LSZ	Marshland

ENVIRONMENTAL

Temperature (°F)	72°
Humidity	73%
Visibility	10 mi
Wind Direction	E
Wind Speed	7 mph
Weather Conditions	Overcast

PHOTO

Field ID	274
Camera	NIKON D5500
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	7'

PROJECT VIEW

Distance to Project	21.19 miles
Project Horizontal Field of View (HFOV)	27°

PROJECT INFRASTRUCTURE

Number of Turbines	98
Number of offshore Substations	3

V06

Great Bay Boulevard Wildlife Management Area

Little Egg Harbor Township, Ocean County

OCEAN WIND

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V06. Great Bay Boulevard Wildlife Management Area

Little Egg Harbor Township, Ocean County

EXISTING CONDITIONS



**NORMAL VIEW
EXISTING IMAGE**

V06

**Great Bay
Boulevard Wildlife
Management Area**

Little Egg Harbor
Township,
Ocean County

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

OCEAN WIND

tjd&a

V06. Great Bay Boulevard Wildlife Management Area

Little Egg Harbor Township, Ocean County

ORIGINAL LAYOUT VISUALIZATION



**NORMAL VIEW
VISUALIZATION**

V06

**Great Bay
Boulevard Wildlife
Management Area**

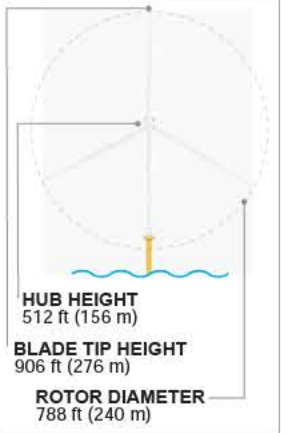
Little Egg Harbor
Township,
Ocean County

**ORIGINAL
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND



V06. Great Bay Boulevard Wildlife Management Area

Little Egg Harbor Township, Ocean County

ALTERNATIVE B-1 VISUALIZATION



**NORMAL VIEW
VISUALIZATION**

V06

**Great Bay
Boulevard Wildlife
Management Area**

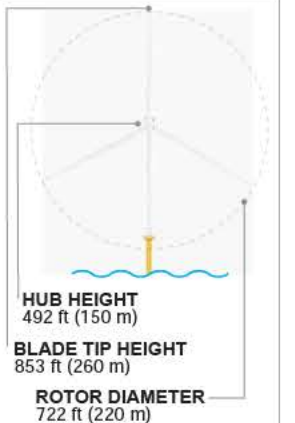
Little Egg Harbor
Township,
Ocean County

**ALTERNATIVE B-1
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND



V06. Great Bay Boulevard Wildlife Management Area

Little Egg Harbor Township, Ocean County

ALTERNATIVE B-2 VISUALIZATION



**NORMAL VIEW
VISUALIZATION**

V06

**Great Bay
Boulevard Wildlife
Management Area**

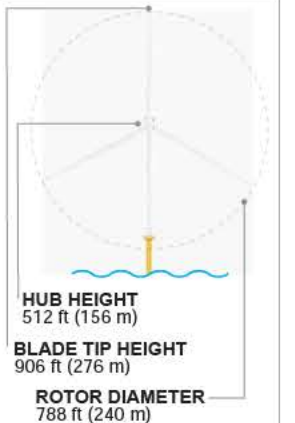
Little Egg Harbor
Township,
Ocean County

**ALTERNATIVE B-2
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND



V06. Great Bay Boulevard Wildlife Management Area

Little Egg Harbor Township, Ocean County

ALTERNATIVE C-1 VISUALIZATION



**NORMAL VIEW
VISUALIZATION**

V06

**Great Bay
Boulevard Wildlife
Management Area**

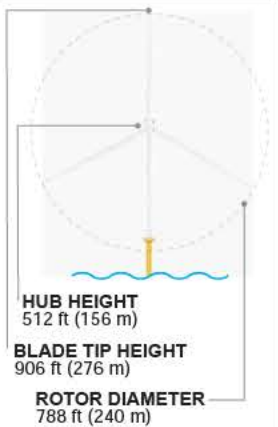
Little Egg Harbor
Township,
Ocean County

**ALTERNATIVE C-1
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND

tjd&a

V14. Playground Pier

Atlantic City, Atlantic County

LANDSCAPE INFORMATION

Field Identification Number. 200

Context Image Dates. 19 September 2018

Site Map Aerial Date. 26 August 2016

Physiographic Area. Shoreline

Landscape Similarity Zone (LSZ). Boardwalk

Scenic Resources. Visualization near Atlantic City Convention Hall (NHL); Shelburne Hotel (listed on NRHP); Atlantic City Boardwalk Historic District (identified historic property - no official NRHP eligibility determination).

SITE MAP



CONTEXT IMAGES



1. View looking southeast from the west side of Playground Pier toward the end of the pier.



2. View looking northeast from visualization location at end of Playground Pier toward Central Pier and Steel Pier.



3. View looking west from end of Playground Pier toward Atlantic City. The Atlantic City Convention Hall (NHL) is visible on the right side of the image.

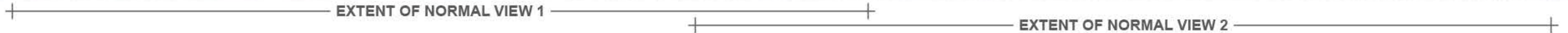


4. View looking northeast from end of playground pier toward Central Pier and Steel Pier.



5. View looking west from visualization location at end of Playground Pier toward Atlantic City shoreline.

PANORAMIC VISUALIZATION



CONTEXT MAP

ALTERNATIVES ANALYSIS

Original Layout: Turbine layout submitted in COP.

Turbine Dimensions: 906 ft blade tip height, 512 ft hub height, 788 ft rotor diameter.

TURBINE DIMENSIONS

BLADE TIP HEIGHT
906 ft (276 m)

HUB HEIGHT
512 ft (156 m)

ROTOR DIAMETER
788 ft (240 m)

Indicative Turbines

IMAGE DATA

LOCATION

Date	19 September 2018
Time	12:28 PM
Latitude	39.352591°
Longitude	-74.433571°
Direction of View	Southeast
LSZ	Boardwalk

PHOTO

Field ID	200
Camera	NIKON D750
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	24'

PROJECT INFRASTRUCTURE

Number of Turbines	99
Number of offshore Substations	3

ENVIRONMENTAL

Temperature (°F)	79°
Humidity	77%
Visibility	10 mi
Wind Direction	N
Wind Speed	7 mph
Weather Conditions	Broken clouds

PROJECT VIEW

Distance to Project	15.21 miles
Project Horizontal Field of View (HFOV)	41°

V14

Playground Pier

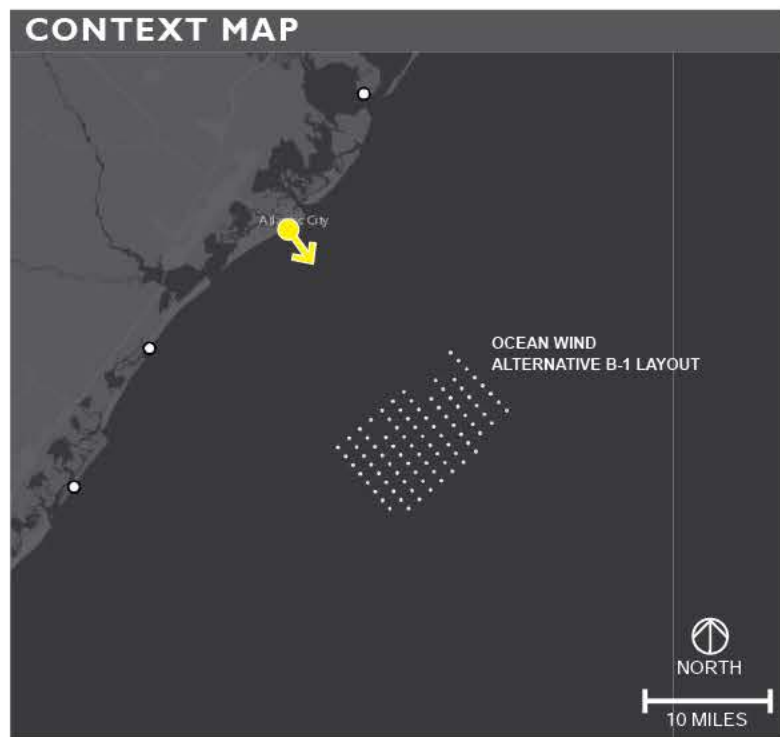
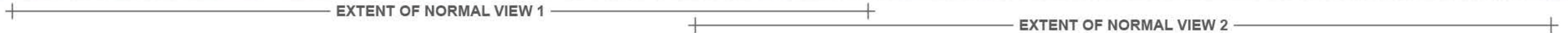
Atlantic City, Atlantic County

OCEAN WIND

tjd&a | Landscape Architects & Planners

1 December 2021 Page 2/15

PANORAMIC VISUALIZATION



ALTERNATIVES ANALYSIS

Alternative B-1: Exclusion of up to nine turbine positions in the first two shoreward strings of turbines that includes F01 to K01 and B02 to D02.

Turbine dimensions: 853 ft blade tip height, 492 ft hub height, 722 ft rotor diameter.

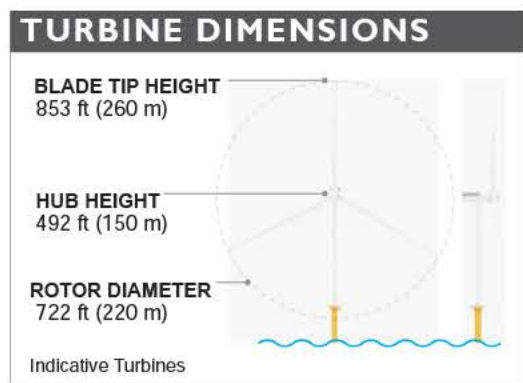


IMAGE DATA

LOCATION

Date	19 September 2018
Time	12:28 PM
Latitude	39.352591°
Longitude	-74.433571°
Direction of View	Southeast
LSZ	Boardwalk

ENVIRONMENTAL

Temperature (°F)	79°
Humidity	77%
Visibility	10 mi
Wind Direction	N
Wind Speed	7 mph
Weather Conditions	Broken clouds

PHOTO

Field ID	200
Camera	NIKON D750
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	24'

PROJECT VIEW

Distance to Project	15.97 miles
Project Horizontal Field of View (HFOV)	40°

PROJECT INFRASTRUCTURE

Number of Turbines	89
Number of offshore Substations	3

V14

Playground Pier

Atlantic City, Atlantic County

OCEAN WIND

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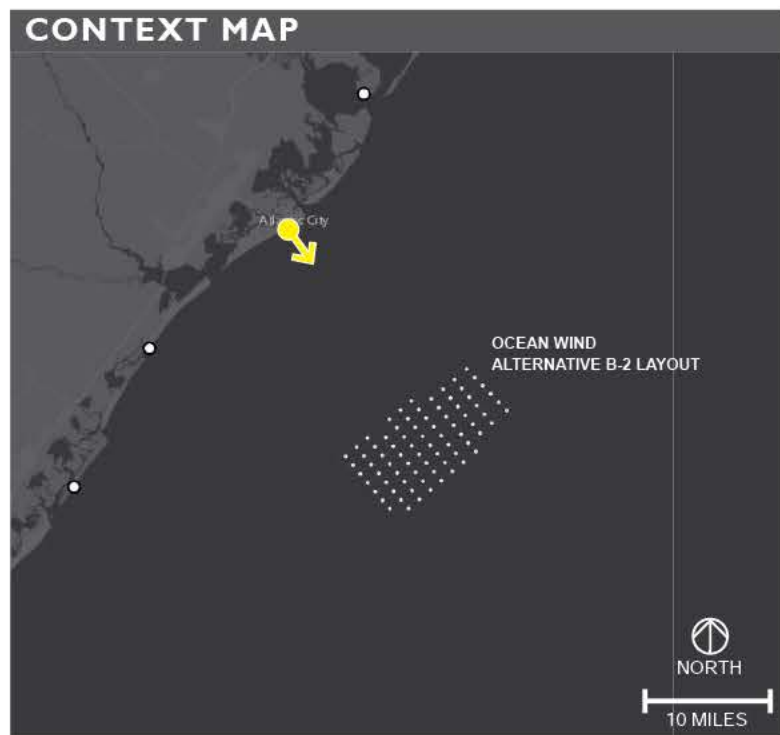
1 December 2021 Page 3/15

PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW 1

EXTENT OF NORMAL VIEW 2



ALTERNATIVES ANALYSIS

Alternative B-2: Exclusion of up to 19 turbine positions in the first three shoreward strings of turbines that includes F01 to K01, A02 to K02, A03 and C03.

Turbine Dimensions: 906 ft blade tip height, 512 ft hub height, 788 ft rotor diameter.

TURBINE DIMENSIONS

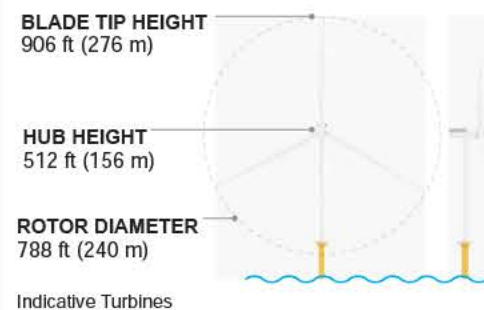


IMAGE DATA

LOCATION

Date	19 September 2018
Time	12:28 PM
Latitude	39.352591°
Longitude	-74.433571°
Direction of View	Southeast
LSZ	Boardwalk

PHOTO

Field ID	200
Camera	NIKON D750
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	24'

PROJECT INFRASTRUCTURE

Number of Turbines	79
Number of offshore Substations	3

ENVIRONMENTAL

Temperature (°F)	79°
Humidity	77%
Visibility	10 mi
Wind Direction	N
Wind Speed	7 mph
Weather Conditions	Broken clouds

PROJECT VIEW

Distance to Project	18.11 miles
Project Horizontal Field of View (HFOV)	38°

V14

Playground Pier

Atlantic City, Atlantic County

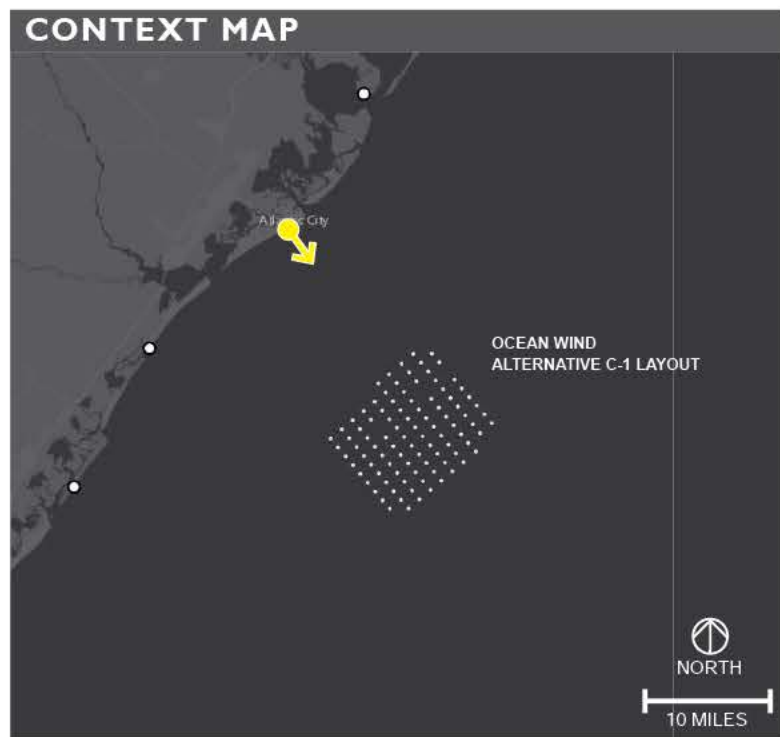
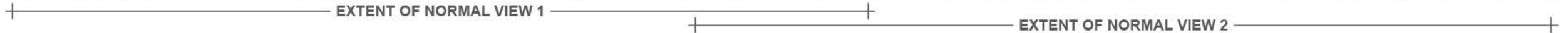
OCEAN WIND

tjd&a | Landscape Architects & Planners

V14. Playground Pier

Atlantic City, Atlantic County

PANORAMIC VISUALIZATION



ALTERNATIVES ANALYSIS

Alternative C-1: Exclusion of eight turbine positions (A02 to A09), relocation of eight turbine positions to the northern portion of the Ocean Wind Lease Area (C00 to F00 and B01 to E01).

Turbine Dimensions: 906 ft blade tip height, 512 ft hub height, 788 ft rotor diameter.

TURBINE DIMENSIONS

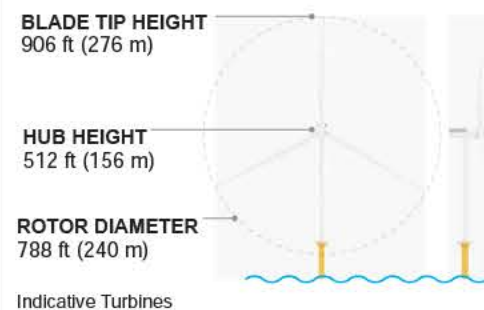


IMAGE DATA

LOCATION	
Date	19 September 2018
Time	12:28 PM
Latitude	39.352591°
Longitude	-74.433571°
Direction of View	Southeast
LSZ	Boardwalk

ENVIRONMENTAL	
Temperature (°F)	79°
Humidity	77%
Visibility	10 mi
Wind Direction	N
Wind Speed	7 mph
Weather Conditions	Broken clouds

PHOTO	
Field ID	200
Camera	NIKON D750
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	24'

PROJECT VIEW	
Distance to Project	14.07 miles
Project Horizontal Field of View (HFOV)	35°

PROJECT INFRASTRUCTURE	
Number of Turbines	98
Number of offshore Substations	3

V14

Playground Pier

Atlantic City, Atlantic County

OCEAN WIND

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1 December 2021 Page 5/15

V14. Playground Pier

Atlantic City, Atlantic County

EXISTING CONDITIONS



**NORMAL VIEW |
EXISTING IMAGE**

V14

Playground Pier

**Atlantic City,
Atlantic County**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

OCEAN WIND

tjd&a

V14. Playground Pier

Atlantic City, Atlantic County

ORIGINAL LAYOUT VISUALIZATION



NORMAL VIEW | VISUALIZATION

V14

Playground Pier

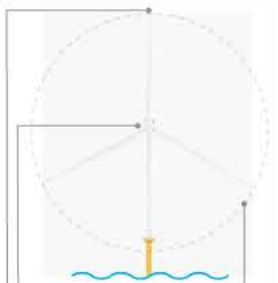
**Atlantic City,
Atlantic County**

**ORIGINAL
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



HUB HEIGHT
512 ft (156 m)

BLADE TIP HEIGHT
906 ft (276 m)

ROTOR DIAMETER
788 ft (240 m)

OCEAN WIND

tjd&a

V14. Playground Pier

Atlantic City, Atlantic County

ALTERNATIVE B-1 VISUALIZATION



NORMAL VIEW | VISUALIZATION

V14

Playground Pier

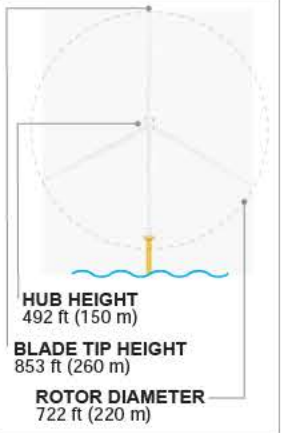
**Atlantic City,
Atlantic County**

ALTERNATIVE B-1 VISUALIZATION

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND



V14. Playground Pier

Atlantic City, Atlantic County

ALTERNATIVE B-2 VISUALIZATION



NORMAL VIEW | VISUALIZATION

V14

Playground Pier

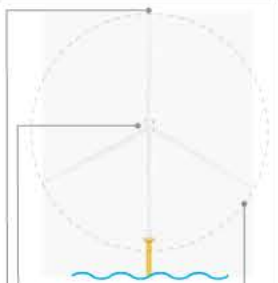
**Atlantic City,
Atlantic County**

**ALTERNATIVE B-2
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



HUB HEIGHT
512 ft (156 m)

BLADE TIP HEIGHT
906 ft (276 m)

ROTOR DIAMETER
788 ft (240 m)

OCEAN WIND

tjd&a

V14. Playground Pier

Atlantic City, Atlantic County



**NORMAL VIEW |
VISUALIZATION**

V14

Playground Pier

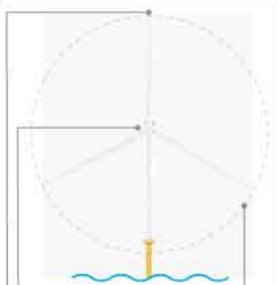
**Atlantic City,
Atlantic County**

**ALTERNATIVE C-1
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



HUB HEIGHT
512 ft (156 m)

BLADE TIP HEIGHT
906 ft (276 m)

ROTOR DIAMETER
788 ft (240 m)

OCEAN WIND

tjd&a

V14. Playground Pier

Atlantic City, Atlantic County



**NORMAL VIEW 2
EXISTING IMAGE**

V14

Playground Pier

**Atlantic City,
Atlantic County**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

OCEAN WIND

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V14. Playground Pier

Atlantic City, Atlantic County

ORIGINAL LAYOUT VISUALIZATION



**NORMAL VIEW 2
VISUALIZATION**

V14

Playground Pier

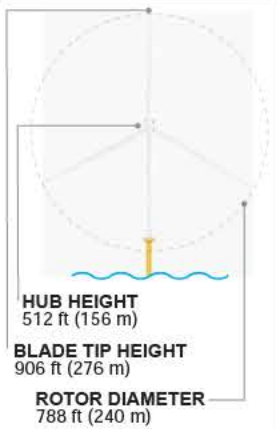
**Atlantic City,
Atlantic County**

**ORIGINAL
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND

tjd&a

V14. Playground Pier

Atlantic City, Atlantic County



**NORMAL VIEW 2
VISUALIZATION**

V14

Playground Pier

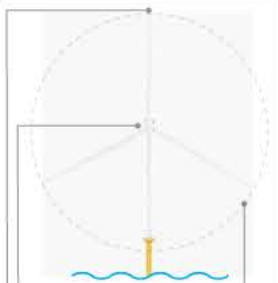
**Atlantic City,
Atlantic County**

**ALTERNATIVE B-1
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



HUB HEIGHT
492 ft (150 m)

BLADE TIP HEIGHT
853 ft (260 m)

ROTOR DIAMETER
722 ft (220 m)

OCEAN WIND

tjd&a

V14. Playground Pier

Atlantic City, Atlantic County

ALTERNATIVE B-2 VISUALIZATION



NORMAL VIEW 2 VISUALIZATION

V14

Playground Pier

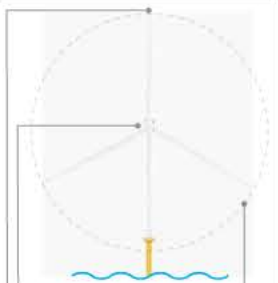
**Atlantic City,
Atlantic County**

**ALTERNATIVE B-2
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



HUB HEIGHT
512 ft (156 m)

BLADE TIP HEIGHT
906 ft (276 m)

ROTOR DIAMETER
788 ft (240 m)

OCEAN WIND

tjd&a

V14. Playground Pier

Atlantic City, Atlantic County



**NORMAL VIEW 2
VISUALIZATION**

V14

Playground Pier

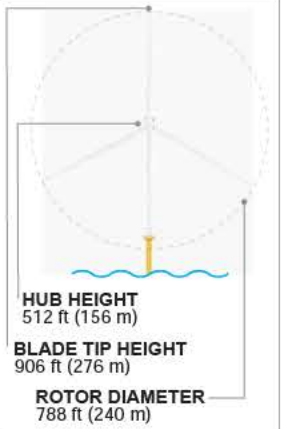
**Atlantic City,
Atlantic County**

**ALTERNATIVE C-1
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND

tjd&a

V19. Corson's Inlet State Park

Ocean City, Cape May County

LANDSCAPE INFORMATION

Field Identification Number. 140
Context Image Dates. 15 August 2018
Site Map Aerial Date. 26 July 2018
Physiographic Area. Shoreline
Landscape Similarity Zone (LSZ). Beachfront

Scenic Resources. Viewpoint from Corson's Inlet State Park, near Cape May Coastal Wetlands Wildlife Management Area.

SITE MAP



CONTEXT IMAGES



1. View looking northeast from Rush Chattin Bridge toward Corson's Inlet State Park.



2. View looking northeast from beachfront north of state park.



3. View looking southeast from end of trail connecting state park parking lot to beachfront.



4. View looking southwest from beach in state park toward Strathmere.



5. View looking northeast from state park beach toward Ocean City.



6. View looking southwest from west side of state park toward Corson's Inlet Bridge and Strathmere Bay.

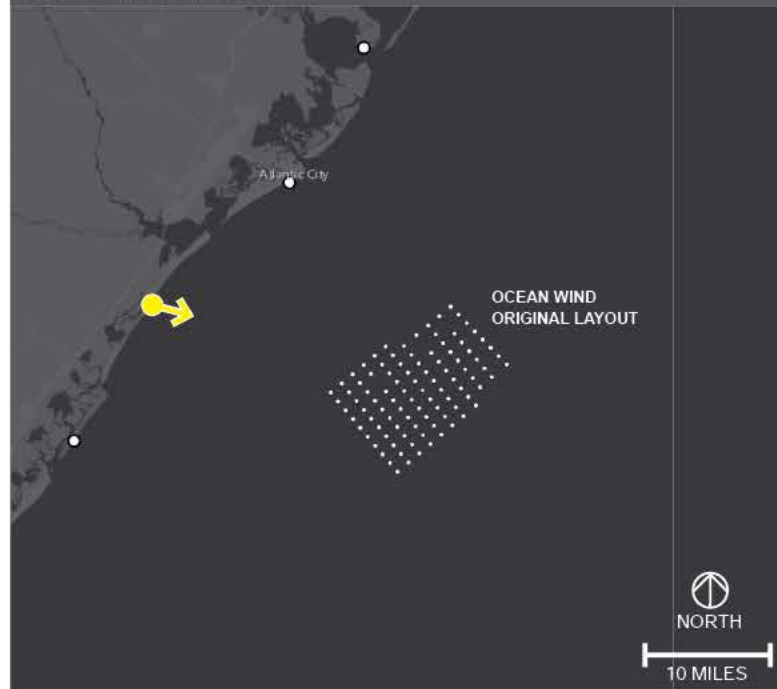
PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW 1

EXTENT OF NORMAL VIEW 2

CONTEXT MAP



ALTERNATIVES ANALYSIS

Original Layout: Turbine layout submitted in COP.

Turbine Dimensions: 906 ft blade tip height, 512 ft hub height, 788 ft rotor diameter.

TURBINE DIMENSIONS

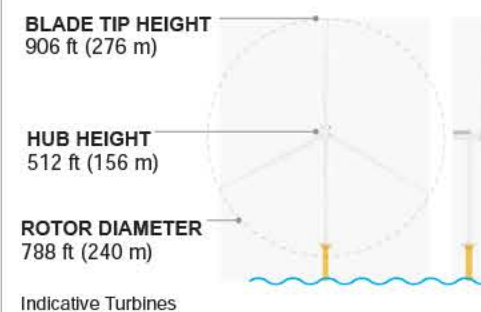


IMAGE DATA

LOCATION

Date	15 August 2018
Time	4:55 PM
Latitude	39.213474°
Longitude	-74.642627°
Direction of View	Southeast
LSZ	Beachfront

ENVIRONMENTAL

Temperature (°F)	90°
Humidity	45%
Visibility	10 mi
Wind Direction	W
Wind Speed	12 mph
Weather Conditions	Sunny

PHOTO

Field ID	140
Camera	NIKON D750
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	15'

PROJECT VIEW

Distance to Project	16.22 miles
Project Horizontal Field of View (HFOV)	34°

PROJECT INFRASTRUCTURE

Number of Turbines	99
Number of offshore Substations	3

V19

Corson's Inlet State Park

Ocean City, Cape May County

OCEAN WIND

tjd&a | Landscape Architects & Planners

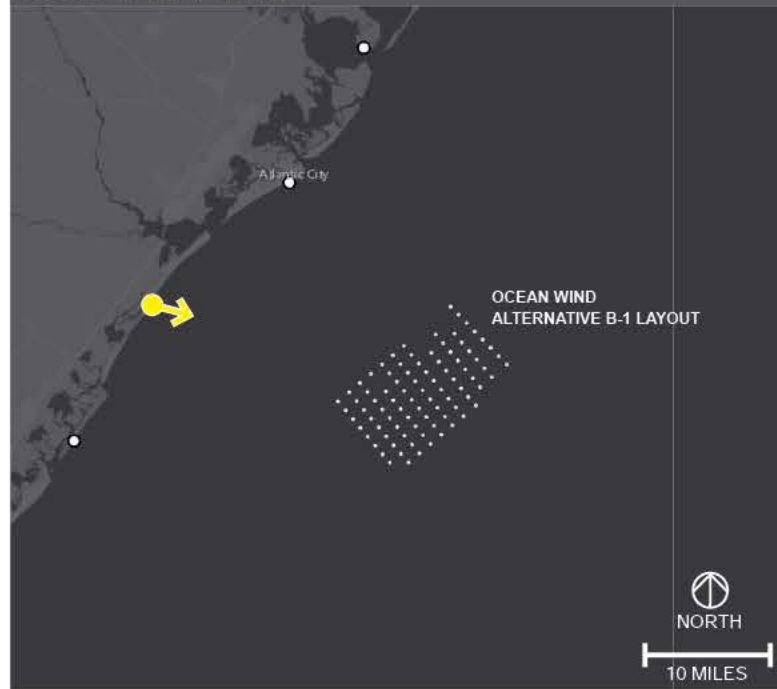
PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW 1

EXTENT OF NORMAL VIEW 2

CONTEXT MAP



ALTERNATIVES ANALYSIS

Alternative B-1: Exclusion of up to nine turbine positions in the first two shoreward strings of turbines that includes F01 to K01 and B02 to D02.

Turbine dimensions: 853 ft blade tip height, 492 ft hub height, 722 ft rotor diameter.

TURBINE DIMENSIONS

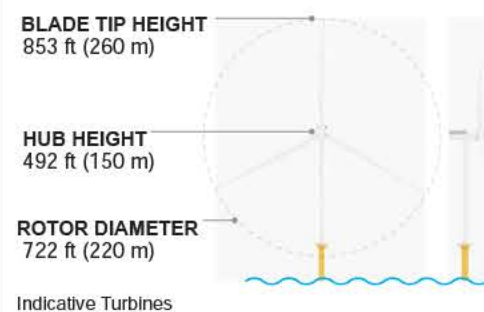


IMAGE DATA

LOCATION

Date	15 August 2018
Time	4:55 PM
Latitude	39.213474°
Longitude	-74.642627°
Direction of View	Southeast
LSZ	Beachfront

ENVIRONMENTAL

Temperature (°F)	90°
Humidity	45%
Visibility	10 mi
Wind Direction	W
Wind Speed	12 mph
Weather Conditions	Sunny

PHOTO

Field ID	140
Camera	NIKON D750
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	15'

PROJECT VIEW

Distance to Project	17.07 miles
Project Horizontal Field of View (HFOV)	33°

PROJECT INFRASTRUCTURE

Number of Turbines	89
Number of offshore Substations	3

V19

Corson's Inlet State Park

Ocean City, Cape May County

OCEAN WIND

tjd&a | Landscape Architects & Planners

PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW 1

EXTENT OF NORMAL VIEW 2

CONTEXT MAP



ALTERNATIVES ANALYSIS

Alternative B-2: Exclusion of up to 19 turbine positions in the first three shoreward strings of turbines that includes F01 to K01, A02 to K02, A03 and C03.

Turbine Dimensions: 906 ft blade tip height, 512 ft hub height, 788 ft rotor diameter.

TURBINE DIMENSIONS

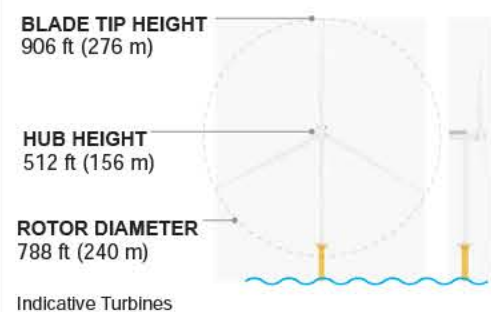


IMAGE DATA

LOCATION

Date	15 August 2018
Time	4:55 PM
Latitude	39.213474°
Longitude	-74.642627°
Direction of View	Southeast
LSZ	Beachfront

PHOTO

Field ID	140
Camera	NIKON D750
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	15'

PROJECT INFRASTRUCTURE

Number of Turbines	79
Number of offshore Substations	3

ENVIRONMENTAL

Temperature (°F)	90°
Humidity	45%
Visibility	10 mi
Wind Direction	W
Wind Speed	12 mph
Weather Conditions	Sunny

PROJECT VIEW

Distance to Project	17.92 miles
Project Horizontal Field of View (HFOV)	30°

V19

Corson's Inlet State Park

Ocean City, Cape May County

OCEAN WIND

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PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW 1

EXTENT OF NORMAL VIEW 2

CONTEXT MAP



ALTERNATIVES ANALYSIS

Alternative C-1: Exclusion of eight turbine positions (A02 to A09), relocation of eight turbine positions to the northern portion of the Ocean Wind Lease Area (C00 to F00 and B01 to E01).

Turbine Dimensions: 906 ft blade tip height, 512 ft hub height, 788 ft rotor diameter.

TURBINE DIMENSIONS

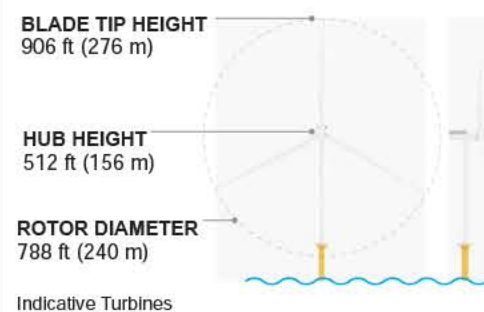


IMAGE DATA

LOCATION

Date	15 August 2018
Time	4:55 PM
Latitude	39.213474°
Longitude	-74.642627°
Direction of View	Southeast
LSZ	Beachfront

ENVIRONMENTAL

Temperature (°F)	90°
Humidity	45%
Visibility	10 mi
Wind Direction	W
Wind Speed	12 mph
Weather Conditions	Sunny

PHOTO

Field ID	140
Camera	NIKON D750
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	15'

PROJECT VIEW

Distance to Project	16.22 miles
Project Horizontal Field of View (HFOV)	33°

PROJECT INFRASTRUCTURE

Number of Turbines	98
Number of offshore Substations	3

V19

Corson's Inlet State Park

Ocean City, Cape May County

OCEAN WIND

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V19. Corson's Inlet State Park

Ocean City, Cape May County



**NORMAL VIEW |
EXISTING IMAGE**

V19

**Corson's Inlet
State Park**

Ocean City,
Cape May County

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

OCEAN WIND

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V19. Corson's Inlet State Park

Ocean City, Cape May County

ORIGINAL LAYOUT VISUALIZATION



**NORMAL VIEW |
VISUALIZATION**

V19

**Corson's Inlet
State Park**

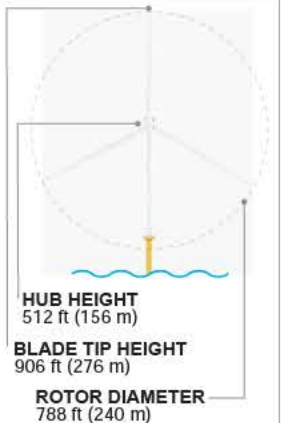
**Ocean City,
Cape May County**

**ORIGINAL
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND



V19. Corson's Inlet State Park

Ocean City, Cape May County

ALTERNATIVE B-1 VISUALIZATION



NORMAL VIEW | VISUALIZATION

V19

Corson's Inlet State Park

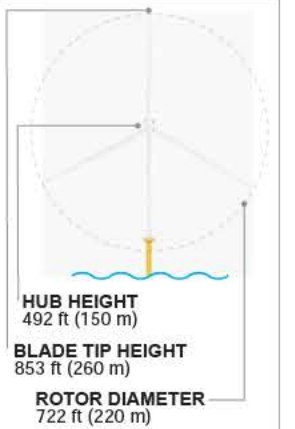
Ocean City, Cape May County

ALTERNATIVE B-1 VISUALIZATION

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND

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V19. Corson's Inlet State Park

Ocean City, Cape May County

ALTERNATIVE B-2 VISUALIZATION



NORMAL VIEW | VISUALIZATION

V19

Corson's Inlet State Park

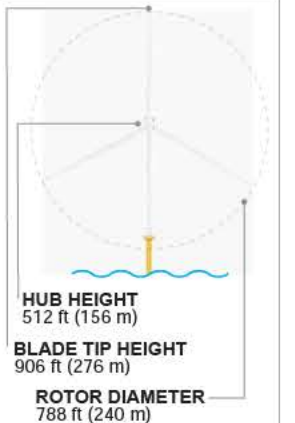
Ocean City, Cape May County

ALTERNATIVE B-2 VISUALIZATION

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND

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V19. Corson's Inlet State Park

Ocean City, Cape May County

ALTERNATIVE C-1 VISUALIZATION



NORMAL VIEW | VISUALIZATION

V19

Corson's Inlet State Park

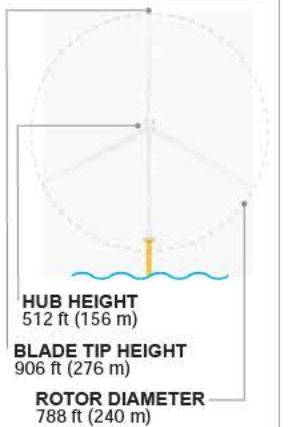
Ocean City, Cape May County

ALTERNATIVE C-1 VISUALIZATION

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND

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V19. Corson's Inlet State Park

Ocean City, Cape May County



**NORMAL VIEW 2
EXISTING IMAGE**

V19

**Corson's Inlet
State Park**

**Ocean City,
Cape May County**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

OCEAN WIND

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V19. Corson's Inlet State Park

Ocean City, Cape May County

ORIGINAL LAYOUT VISUALIZATION



**NORMAL VIEW 2
VISUALIZATION**

V19

**Corson's Inlet
State Park**

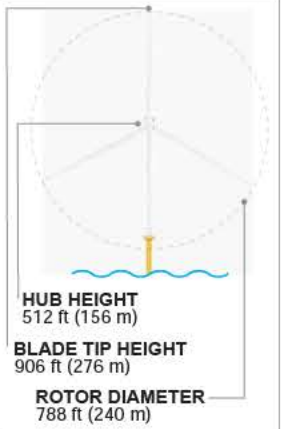
**Ocean City,
Cape May County**

**ORIGINAL
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND



V19. Corson's Inlet State Park

Ocean City, Cape May County

ALTERNATIVE B-1 VISUALIZATION



NORMAL VIEW 2 VISUALIZATION

V19

Corson's Inlet State Park

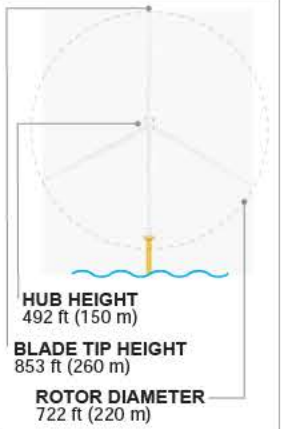
Ocean City, Cape May County

ALTERNATIVE B-1 VISUALIZATION

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND



V19. Corson's Inlet State Park

Ocean City, Cape May County

ALTERNATIVE B-2 VISUALIZATION



NORMAL VIEW 2 VISUALIZATION

V19

Corson's Inlet State Park

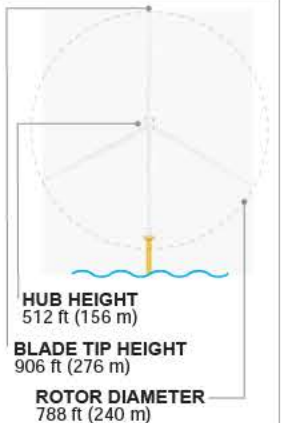
Ocean City, Cape May County

ALTERNATIVE B-2 VISUALIZATION

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND



V19. Corson's Inlet State Park

Ocean City, Cape May County

ALTERNATIVE C-1 VISUALIZATION



NORMAL VIEW 2 VISUALIZATION

V19

Corson's Inlet State Park

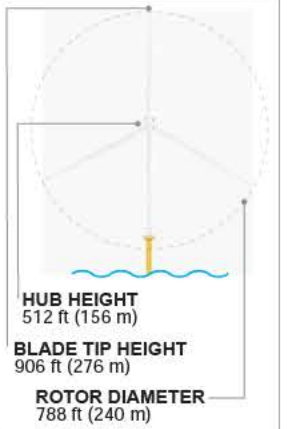
Ocean City, Cape May County

ALTERNATIVE C-1 VISUALIZATION

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND



V22. Stone Harbor Beach Access (Day)

Stone Harbor, Cape May County

LANDSCAPE INFORMATION

Field Identification Number. 59

Context Image Dates. 14 August 2018

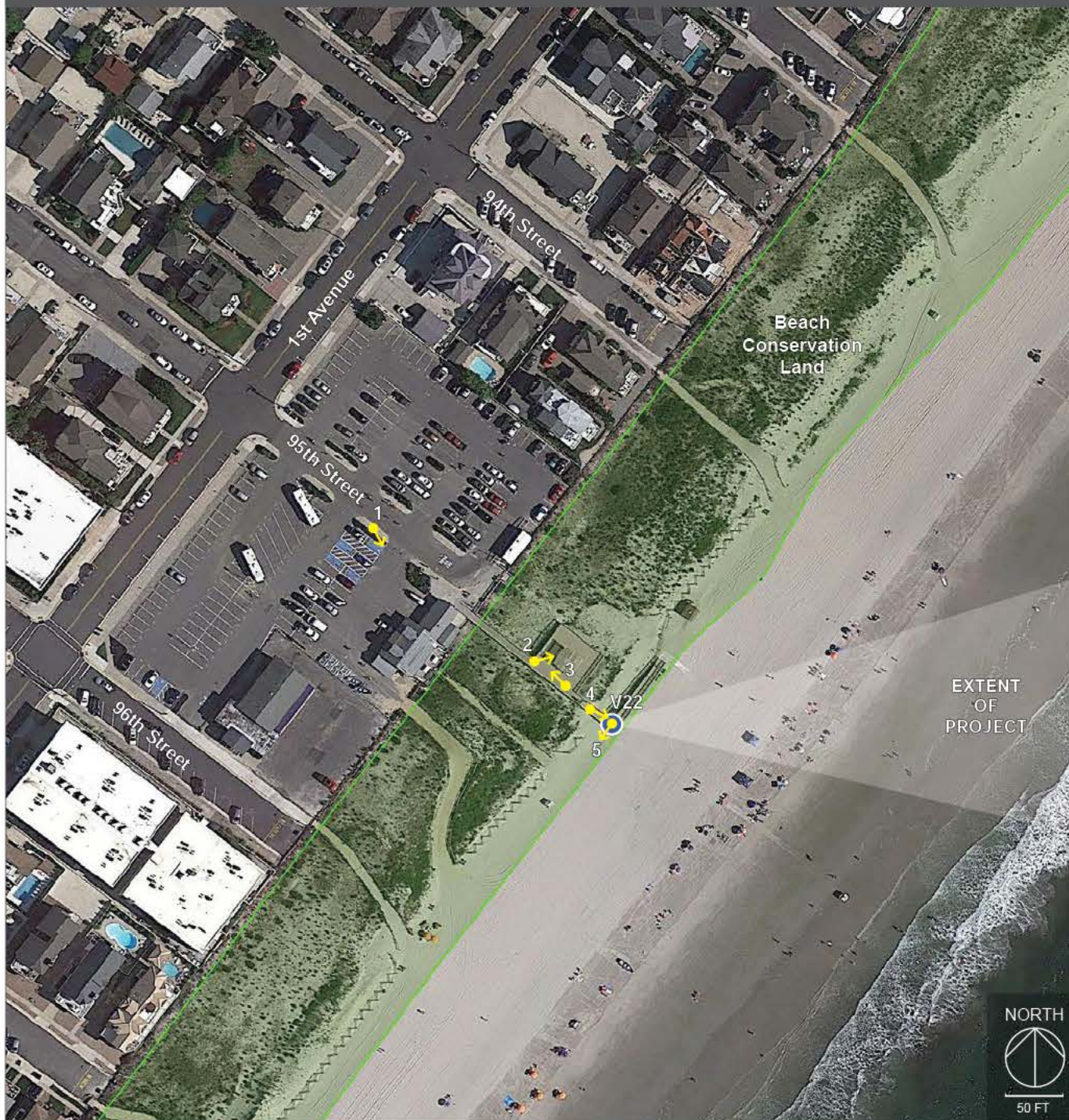
Site Map Aerial Date. 26 July 2018

Physiographic Area. Shoreline

Landscape Similarity Zone (LSZ). Beachfront

Scenic Resources. Viewpoint from a public beach conservation area. Viewpoint is near Stone Harbor Downtown Commercial Block (identified historic district - no official NRHP eligibility designation).

SITE MAP



CONTEXT IMAGES



1. View looking southeast from the end of 95th Street toward Stone Harbor Beach Patrol, and public beach access.



2. View looking east toward gazebo on 95th Street beach access dune viewing platform.



3. View looking northwest toward 95th Street from 95th Street beach access dune viewing platform.



4. View looking southeast from 95th Street beach access dune viewing platform.



5. View looking southwest from visualization location on the 95th Street beach access ramp.

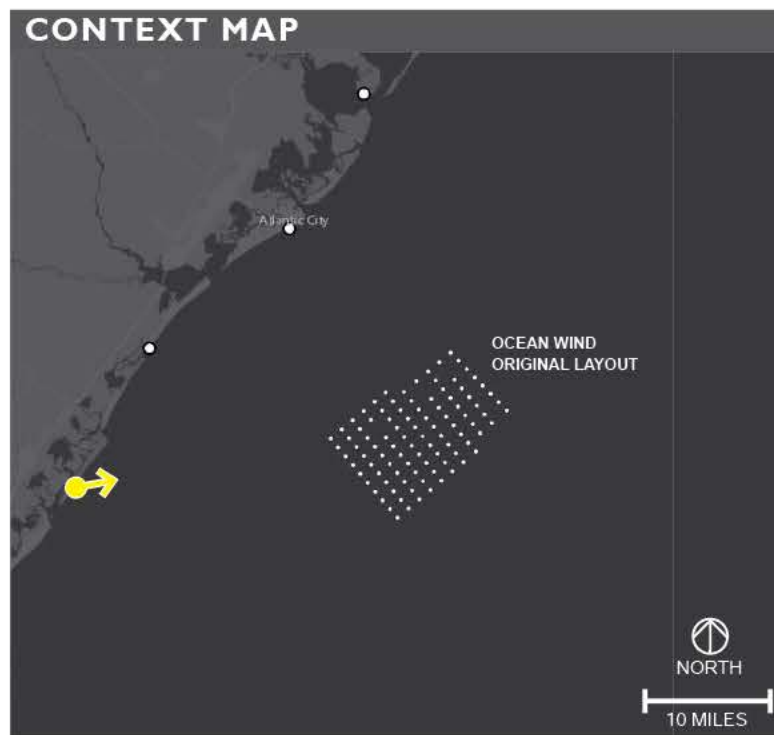
V22. Stone Harbor Beach Access (Day)

Stone Harbor, Cape May County

PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW



ALTERNATIVES ANALYSIS

Original Layout: Turbine layout submitted in COP.

Turbine Dimensions: 906 ft blade tip height, 512 ft hub height, 788 ft rotor diameter.

TURBINE DIMENSIONS

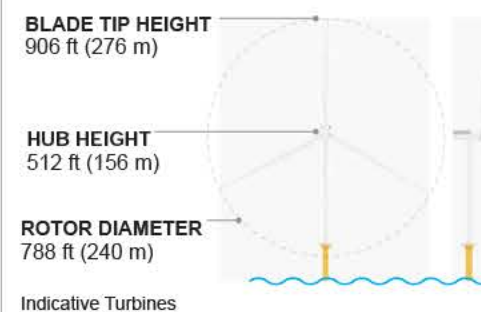


IMAGE DATA

LOCATION	
Date	14 August 2018
Time	4:22 PM
Latitude	39.052389°
Longitude	-74.754855°
Direction of View	East
LSZ	Beachfront

ENVIRONMENTAL	
Temperature (°F)	83°
Humidity	63%
Visibility	10 mi
Wind Direction	W
Wind Speed	14 mph
Weather Conditions	Partly Cloudy

PHOTO	
Field ID	59
Camera	NIKON D750
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	13'

PROJECT VIEW	
Distance to Project	20.93 miles
Project Horizontal Field of View (HFOV)	25°

PROJECT INFRASTRUCTURE	
Number of Turbines	99
Number of offshore Substations	3

V22

Stone Harbor Beach Access (Day)
Stone Harbor, Cape May County

OCEAN WIND

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1 December 2021 Page 2/10

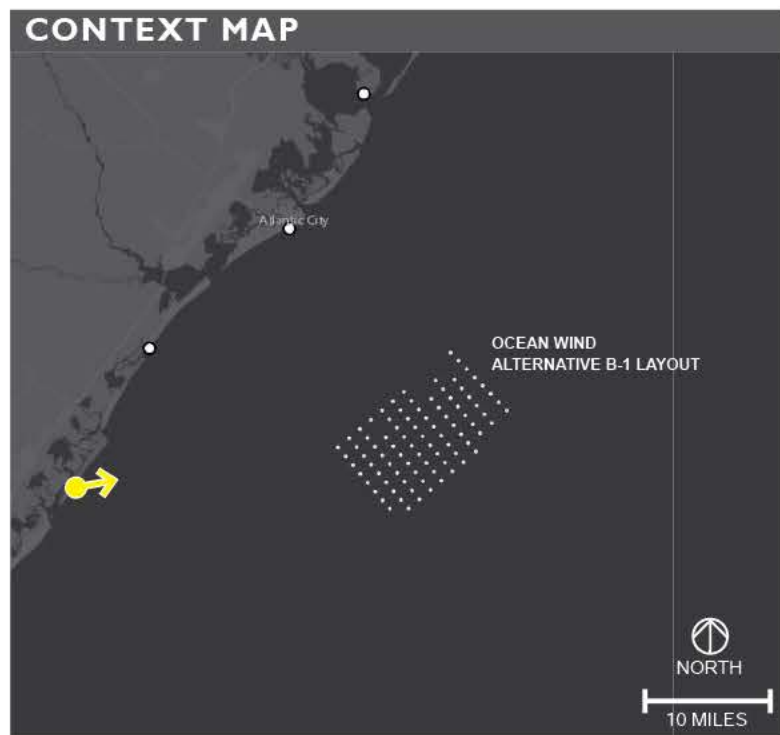
V22. Stone Harbor Beach Access (Day)

Stone Harbor, Cape May County

PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW



ALTERNATIVES ANALYSIS

Alternative B-1: Exclusion of up to nine turbine positions in the first two shoreward strings of turbines that includes F01 to K01 and B02 to D02.

Turbine dimensions: 853 ft blade tip height, 492 ft hub height, 722 ft rotor diameter.

TURBINE DIMENSIONS

Indicative Turbines

IMAGE DATA

LOCATION	
Date	14 August 2018
Time	4:22 PM
Latitude	39.052389°
Longitude	-74.754855°
Direction of View	East
LSZ	Beachfront

ENVIRONMENTAL	
Temperature (°F)	83°
Humidity	63%
Visibility	10 mi
Wind Direction	W
Wind Speed	14 mph
Weather Conditions	Partly Cloudy

PROJECT VIEW	
Distance to Project	21.4 miles
Project Horizontal Field of View (HFOV)	24°

PROJECT INFRASTRUCTURE	
Number of Turbines	89
Number of offshore Substations	3

V22

Stone Harbor Beach Access (Day)

Stone Harbor, Cape May County

OCEAN WIND

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1 December 2021 Page 3/10

V22. Stone Harbor Beach Access (Day)

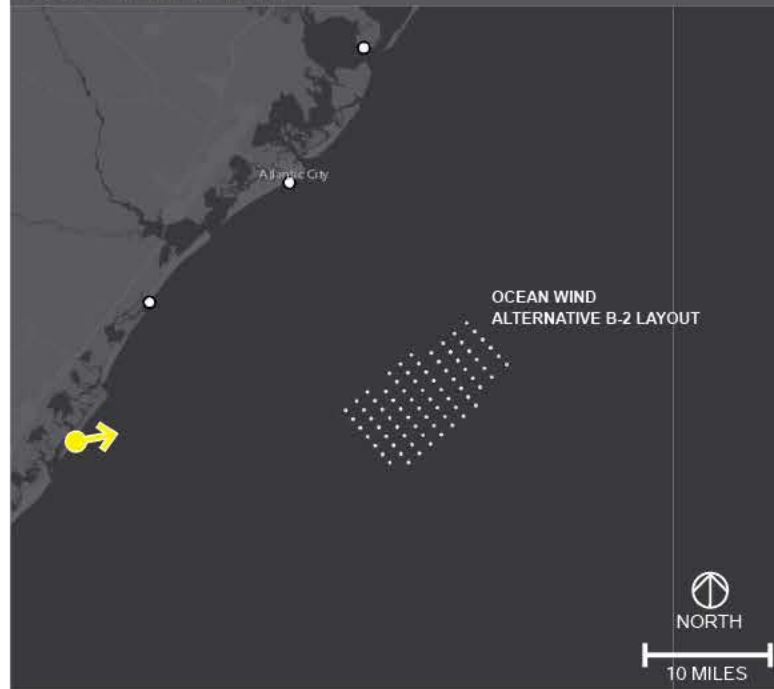
Stone Harbor, Cape May County

PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW

CONTEXT MAP



ALTERNATIVES ANALYSIS

Alternative B-2: Exclusion of up to 19 turbine positions in the first three shoreward strings of turbines that includes F01 to K01, A02 to K02, A03 and C03.

Turbine Dimensions: 906 ft blade tip height, 512 ft hub height, 788 ft rotor diameter.

TURBINE DIMENSIONS

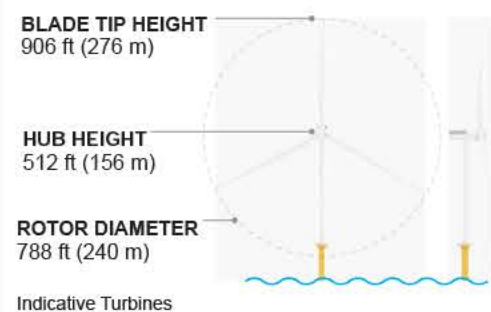


IMAGE DATA

LOCATION

Date	14 August 2018
Time	4:22 PM
Latitude	39.052389°
Longitude	-74.754855°
Direction of View	East
LSZ	Beachfront

ENVIRONMENTAL

Temperature (°F)	83°
Humidity	63%
Visibility	10 mi
Wind Direction	W
Wind Speed	14 mph
Weather Conditions	Partly Cloudy

PHOTO

Field ID	59
Camera	NIKON D750
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	13'

PROJECT VIEW

Distance to Project	21.89 miles
Project Horizontal Field of View (HFOV)	21°

PROJECT INFRASTRUCTURE

Number of Turbines	79
Number of offshore Substations	3

V22

Stone Harbor Beach Access (Day)

Stone Harbor, Cape May County

OCEAN WIND

tjd&a | Landscape Architects & Planners

V22. Stone Harbor Beach Access (Day)

Stone Harbor, Cape May County

PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW

CONTEXT MAP



ALTERNATIVES ANALYSIS

Alternative C-1: Exclusion of eight turbine positions (A02 to A09), relocation of eight turbine positions to the northern portion of the Ocean Wind Lease Area (C00 to F00 and B01 to E01).

Turbine Dimensions: 906 ft blade tip height, 512 ft hub height, 788 ft rotor diameter.

TURBINE DIMENSIONS

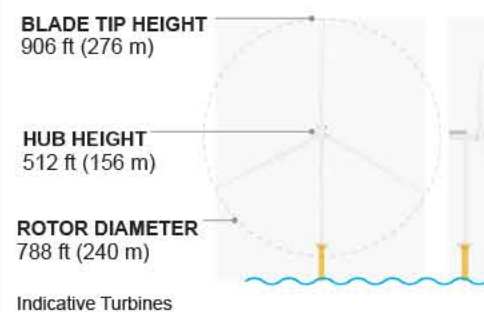


IMAGE DATA

LOCATION

Date	14 August 2018
Time	4:22 PM
Latitude	39.052389°
Longitude	-74.754855°
Direction of View	East
LSZ	Beachfront

ENVIRONMENTAL

Temperature (°F)	83°
Humidity	63%
Visibility	10 mi
Wind Direction	W
Wind Speed	14 mph
Weather Conditions	Partly Cloudy

PHOTO

Field ID	59
Camera	NIKON D750
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	13'

PROJECT VIEW

Distance to Project	20.93 miles
Project Horizontal Field of View (HFOV)	25°

PROJECT INFRASTRUCTURE

Number of Turbines	98
Number of offshore Substations	3

V22

Stone Harbor Beach Access (Day)

Stone Harbor, Cape May County

OCEAN WIND

tjd&a | Landscape Architects & Planners

V22. Stone Harbor Beach Access (Day)

Stone Harbor, Cape May County

EXISTING CONDITIONS



**NORMAL VIEW
EXISTING IMAGE**

V22

**Stone Harbor
Beach Access
(Day)**

Stone Harbor,
Cape May County

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

OCEAN WIND

tjd&a

V22. Stone Harbor Beach Access (Day)

Stone Harbor, Cape May County

ORIGINAL LAYOUT VISUALIZATION



**NORMAL VIEW
VISUALIZATION**

V22

**Stone Harbor
Beach Access
(Day)**

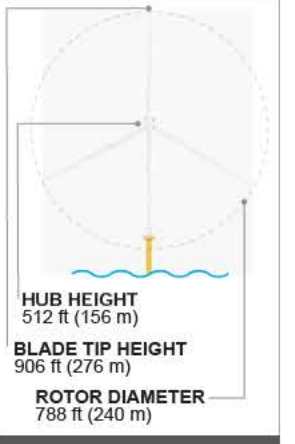
**Stone Harbor,
Cape May County**

**ORIGINAL
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



HUB HEIGHT
512 ft (156 m)

BLADE TIP HEIGHT
906 ft (276 m)

ROTOR DIAMETER
788 ft (240 m)

OCEAN WIND

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V22. Stone Harbor Beach Access (Day)

Stone Harbor, Cape May County

ALTERNATIVE B-1 VISUALIZATION



NORMAL VIEW VISUALIZATION

V22

Stone Harbor Beach Access (Day)

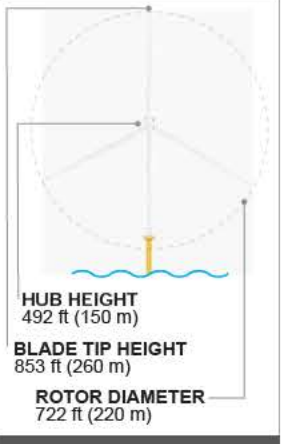
Stone Harbor, Cape May County

ALTERNATIVE B-1 VISUALIZATION

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



HUB HEIGHT
492 ft (150 m)

BLADE TIP HEIGHT
853 ft (260 m)

ROTOR DIAMETER
722 ft (220 m)

OCEAN WIND

tjd&a

V22. Stone Harbor Beach Access (Day)

Stone Harbor, Cape May County

ALTERNATIVE B-2 VISUALIZATION



**NORMAL VIEW
VISUALIZATION**

V22

**Stone Harbor
Beach Access
(Day)**

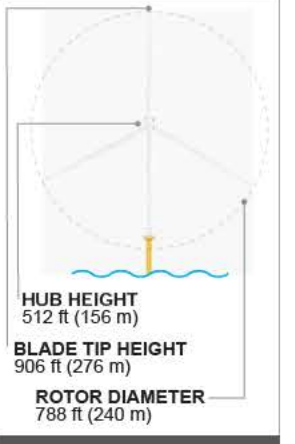
**Stone Harbor,
Cape May County**

**ALTERNATIVE B-2
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



OCEAN WIND



V22. Stone Harbor Beach Access (Day)

Stone Harbor, Cape May County

ALTERNATIVE C-1 VISUALIZATION



**NORMAL VIEW
VISUALIZATION**

V22

**Stone Harbor
Beach Access
(Day)**

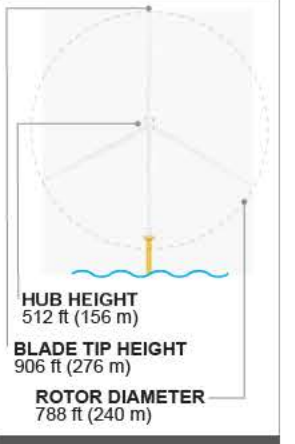
**Stone Harbor,
Cape May County**

**ALTERNATIVE C-1
VISUALIZATION**

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



HUB HEIGHT
512 ft (156 m)

BLADE TIP HEIGHT
906 ft (276 m)

ROTOR DIAMETER
788 ft (240 m)

OCEAN WIND

tjd&a

ATTACHMENT M-4 NIGHTTIME VISUAL SIMULATIONS

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V13. Atlantic City Beachfront (Night)

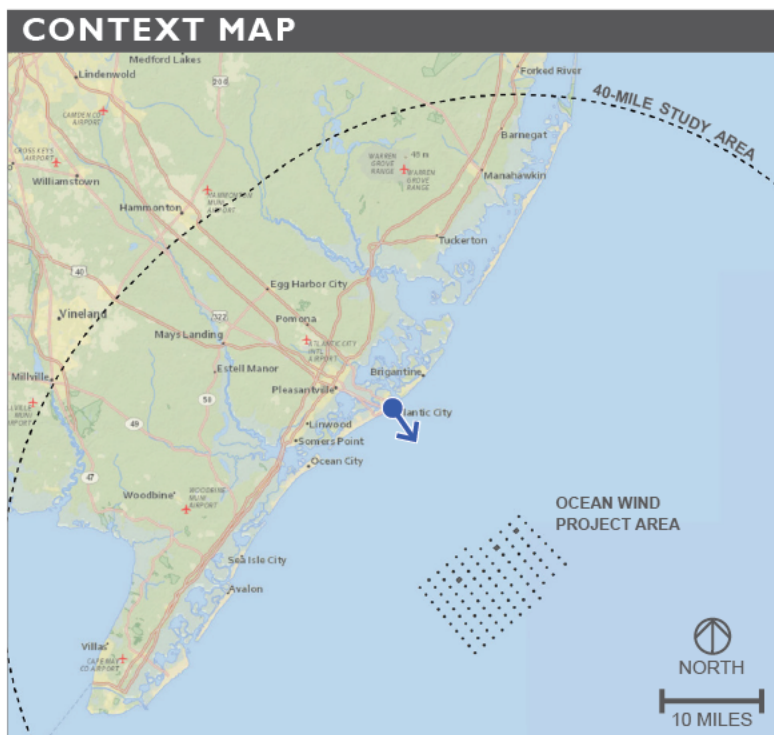
Atlantic City, Atlantic County

PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW 1

EXTENT OF NORMAL VIEW 2



LOCATION

Viewpoint is located on beach access ramp between Steel Pier and Schiff's Central Pier, approximately 140 feet south of the boardwalk.

TURBINE DIMENSIONS

BLADE TIP HEIGHT
906 ft (276 m)

HUB HEIGHT
512 ft (156 m)

ROTOR DIAMETER
788 ft (240 m)

Indicative Turbines

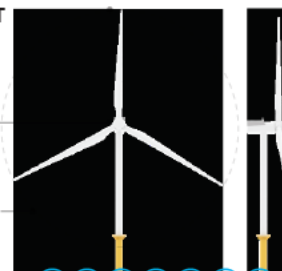


IMAGE DATA

LOCATION

Date	26 July 2018
Time	10:45 PM
Latitude	39.357197°
Longitude	-74.422929°
Direction of View	Southeast
LSZ	Dunes

PHOTO

Field ID	318
Camera	NIKON D750
Resolution	300 dpi
Focal Length	50mm
Viewer Eye Elevation	22'

PROJECT INFRASTRUCTURE

Number of Turbines	99
Number of offshore Substations	3

ENVIRONMENTAL

Temperature (°F)	77°
Humidity	90%
Visibility	10 mi
Wind Direction	SW
Wind Speed	3 mph
Weather Conditions	Clear

PROJECT VIEW

Distance to Project	16.04 miles
Project Horizontal Field of View (HFOV)	41°

V13

Atlantic City Beachfront (Night)

Atlantic City, Atlantic County

OCEAN WIND

tjd&a | Landscape Architects & Planners

V13. Atlantic City Beachfront (Night)

Atlantic City, Atlantic County

EXISTING CONDITIONS



**NORMAL VIEW |
EXISTING IMAGE**

V13

**Atlantic City
Beachfront (Night)**

Atlantic City,
Atlantic County

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

OCEAN WIND



V13. Atlantic City Beachfront (Night)

Atlantic City, Atlantic County

VISUALIZATION



NORMAL VIEW | VISUALIZATION

V13

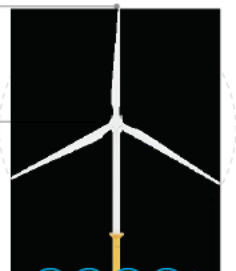
Atlantic City Beachfront (Night)

Atlantic City,
Atlantic County

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



HUB HEIGHT
512 ft (156 m)

BLADE TIP HEIGHT
906 ft (276 m)

ROTOR DIAMETER
788 ft (240 m)

OCEAN WIND



V13. Atlantic City Beachfront (Night)

Atlantic City, Atlantic County

EXISTING CONDITIONS



**NORMAL VIEW 2
EXISTING IMAGE**

V13

**Atlantic City
Beachfront (Night)**

Atlantic City,
Atlantic County

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

OCEAN WIND



V13. Atlantic City Beachfront (Night)

Atlantic City, Atlantic County

VISUALIZATION



NORMAL VIEW 2 VISUALIZATION

V13

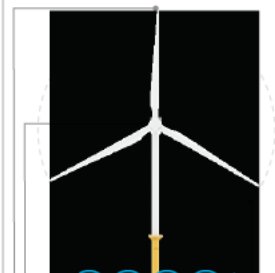
**Atlantic City
Beachfront (Night)**

Atlantic City,
Atlantic County

VIEW NOTE

When printed on 11x17 inch paper, viewer should hold this image approximately 21 inches from eye to replicate actual view.

TURBINE DIMENSIONS



HUB HEIGHT
512 ft (156 m)

BLADE TIP HEIGHT
906 ft (276 m)

ROTOR DIAMETER
788 ft (240 m)

OCEAN WIND



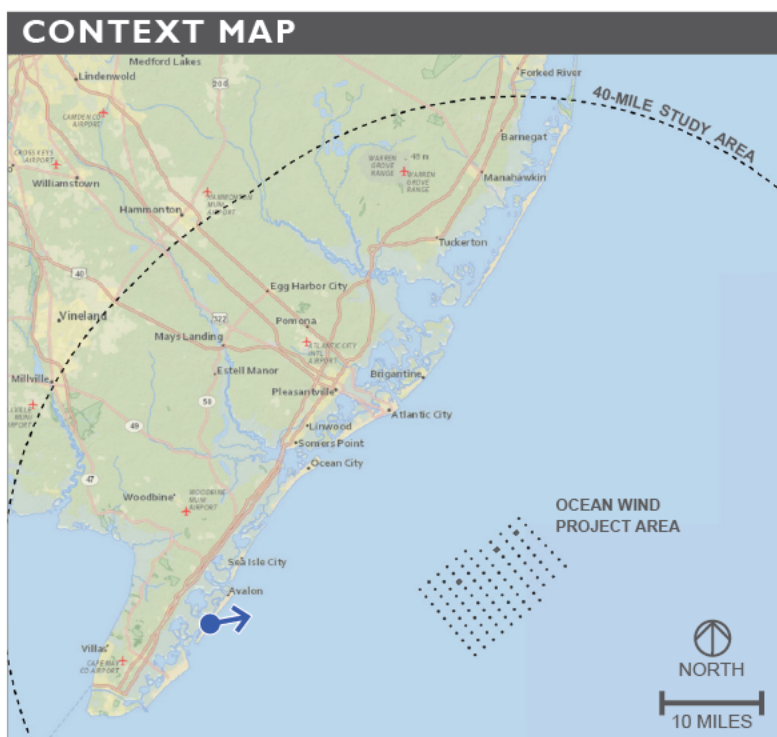
V23. Stone Harbor Beach Access (Night)

Stone Harbor, Cape May County

PANORAMIC VISUALIZATION



EXTENT OF NORMAL VIEW



LOCATION

The viewpoint is from the access ramp to the Stone Harbor beachfront, located at 95th Street adjacent to the Beach Patrol building and municipal parking lot.

TURBINE DIMENSIONS

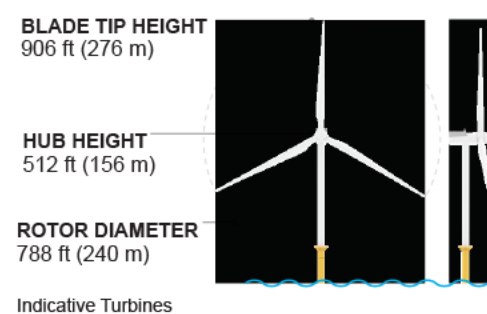


IMAGE DATA

LOCATION		ENVIRONMENTAL	
Date	August 14, 2018	Temperature (°F)	79°
Time	8:49 PM	Humidity	69%
Latitude	39.052389°	Visibility	10 mi
Longitude	-74.754855°	Wind Direction	SW
Direction of View	East	Wind Speed	8 mph
LSZ	Beachfront	Weather Conditions	Mostly Cloudy

PHOTO		PROJECT VIEW	
Field ID	77	Distance to Project	20.93 miles
Camera	NIKON D750	Project Horizontal Field of View (HFOV)	25°
Resolution	300 dpi		
Focal Length	50mm		
Viewer Eye Elevation	13'		

PROJECT INFRASTRUCTURE	
Number of Turbines	99
Number of offshore Substations	3

V23

Stone Harbor Beach Access (Night)
Stone Harbor, Cape May County

OCEAN WIND

tjd&a | Landscape Architects & Planners

V23. Stone Harbor Beach Access (Night)

Stone Harbor, Cape May County

EXISTING CONDITIONS



**NORMAL VIEW
EXISTING IMAGE**

V23

**Stone Harbor
Beach Access
(Night)**

**Stone Harbor,
Cape May County**

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OCEAN WIND



V23. Stone Harbor Beach Access (Night)

Stone Harbor, Cape May County

VISUALIZATION



NORMAL VIEW VISUALIZATION

V23

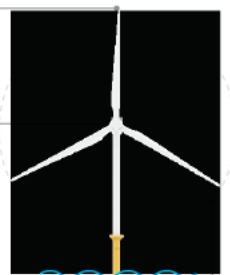
Stone Harbor Beach Access (Night)

Stone Harbor, Cape May County

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