VIA Appendix E

Individual Site Evaluations

Ocean Wind Visual Impact Assessment Report

1 March 2021

EVALUATION MATRICES

LANDSCAPE'S CAPACITY TO ABSORB CHANGE					
	HIGH	**MODERATE - HIGH**	**MODERATE**	**LOW - MODERATE**	**LOW**
Shoreline or Landform	Very simple/ straight shoreline or landform.	Simple shoreline or landform.	Moderately complex shoreline or landform.	Complex shoreline or landform.	Highly complex shoreline or landform.
Visible Topography	Flat. No variation in elevation, such as a beach, marsh, fields, or open water.	Slight variation in elevation, such as low-lying dunes or small hills. (5-10 feet).	Some elevation variation, such as medium sized dunes, moderate hills (10-20 feet).	Moderate elevation variation, such as very prominent dunes or bluffs (20-40 feet).	Significant elevation changes, such as steep hills, visible mountains (40+ feet).
Ocean or Marshland View	Little or no view of ocean, bay, or marshland.	Limited view of ocean, bay, or marshland (vista < 90°).	Moderate view of ocean, bay, or marshland (vista 90°-180°).	Extensive view of ocean, bay, or marshland (vista approx. 180°).	Expansive view of ocean, bay, or marshland (vista >180°).
Landscape Distinctiveness	Insignificant: indistinct landscape character. May detract from character of landscape.	Common: commonly found landscape character. A landscape of local importance.	Noteworthy: some-what common landscape character. A landscape of regional importance.	Distinctive: unusual, somewhat distinctive landscape character. A landscape of state-wide importance.	Rare: very unusual, unique, or distinctive landscape character. A landscape of national importance.
Natural Patterns	Few or no natural areas. Highly developed. Man-made structures dominate the landscape.	Small natural or vegetated areas of local significance. May include highly manicured landscapes or small parks. Man-made structures are co-dominant in the landscape.	Moderately sized natural area of regional significance. May include beach and dunes. Man-made structures are widespread but not dominant in the landscape.	Large natural area that is not remote or isolated. State-wide conservation significance. Man-made structures are limited and scattered.	Remote or isolated natural area. Conservation area of national significance. Minimal evidence of man-made development.
Development Patterns	Heavily developed or industrial/commercial development pattern. Large-scale infrastructure or structures may be common or dominant.	Commercial or suburban development patterns. Moderate-scale infrastructure may be common and co-dominant.	Residential and commercial areas of local importance. Moderate scale buildings and infrastructure visible but not dominant. Development may be visible in midground.	Residential villages and downtowns, properties of state or regional importance. May include identified or eligible historic properties. Large-scale infrastructure, if present, is limited and scattered. Development may be visible in background.	High quality-built environment. May include historic properties or districts on the NRHP. Large scale infrastructure is inconspicuous or absent. Development may not be visible.

USER SENSITIVITY					
	LOW	**LOW - MODERATE**	**MODERATE**	**MODERATE - HIGH**	**HIGH**
Scenic Resource Value	No formal recognition or designation as a scenic resource. No public amenity or recreational resource.	Public sites that may be identified in guide books but have no formal designation as a scenic resource.	Site with local or regional recognition / ownership. Such as local park, central downtown, community resource venue, local historic site, local conservation land.	Site with state recognition / ownership. Such as State Park, State Recreation Area, Wildlife Management Area, or site identified or eligible for the NHRP or SRHP.	Site with national recognition / ownership: e.g., National Park, National Wildlife Refuge. Sites on the NHRP that derive significance from landscape setting.
Primary Use	No recreational activity. Heavy commercial or industrial use. Transportation may be primary use.	Minimal recreational activity. Commercial or industrial use is common.	Recreational activity is present with some commercial or residential use. Recreation is not related to water or shoreline. May include amusement rides, shopping.	Recreational activity is predominant the use. Recreation is not directly tied to water or shoreline. Facilities may include boardwalks, nature trails, scenic byway.	Water dependent or oriented recreation is the predominant use. Facilities may include beaches, jetties, structures and seating oriented toward shoreline.
Value of Public Ocean View	No ocean view due to site location or intervening structures or vegetation.	Users are in the vicinity of the ocean, but the view is unrelated to the activity. May include people on their commute or going about their daily business.	Users are in the vicinity of the beachfront, but the ocean view may be an enhancement but not essential to the activity. May include shoppers, amusement park goers, golfers.	Uses are enhanced by the beachfront, but the ocean view is secondary to the activity. May include running, cycling, fishing.	Uses are dependent on ocean or strongly enhanced by water view. May include beachcombing, bird watching, boating, surfing, swimming, sightseeing.
Use Level	Low usage by residents and visitors.	Low-moderate usage by residents and visitors.	Moderate usage by residents and visitors.	Moderate-high usage by residents and visitors.	High usage by residents and visitors.
Visitor Expectations	Crowded with people, noisy, busy with continuous distractions, many lights.	Other people are constantly present, noticeable noise, frequent distractions, lights.	Other people are noticeably present, some noise, distractions are present.	Some presence of other people, somewhat quiet, some distraction, minimal lights.	Minimal presence of other people or infrastructure, very quiet, little distraction, night sky visible.
Duration of View	At viewpoint for a few seconds. May include brief glimpse of the viewpoint from car or boat.	At viewpoint for up to 30± minutes. May include a stop at an overlook or the top of a light house.	At viewpoint for 30 minutes to 2 hours. May include fishing, restaurant dining, boardwalk activities, walking, or biking.	At viewpoint for 2-4 hours. May include golf, recreational fishing, boating, bird watching.	At viewpoint for >4 hours. May include beach going, commercial fishing
Viewer Elevation	Water level.	Elevated ground plane such as a dune, boardwalk, jetty, or bluff.	2-3 story structure.	3-5 story structure or elevated bridges.	>5 story structures, including a high-rise building or light house.

PHYSICAL FACTORS AFFECTING VISIBILITY AFFECTING VISIBILTY					
	LOW	**LOW - MODERATE**	**MODERATE**	**MODERATE - HIGH**	**HIGH**
Distance to nearest visible turbine	25+ miles from observer.	Over 20 to 25 miles from observer.	Over 15 to 20 miles from observer.	Over 5 to15 miles from observer.	0 to 5 miles from observer.
Vertical Field of View (apparent height at arm's length)	Closest turbines appear to be less than $^{1}/_{8}$ inch above the horizon.	Closest turbines appear to be approximately $^{1}/_{8}$ inch but less than ¼ inch above the horizon.	Closest turbines appear to be approximately ¼ inch but less than ½ inch above the horizon.	Closest turbines appear to be approximately ½ inch but less than ¾ of an inch above the horizon.	Closest turbines appear to be ¾ of an inch or greater above the horizon.
Visual obstructions between the viewpoint and the Project	Visual obstructions make the Project components difficult to identify	Visual obstructions significantly reduce the level of project visibility	Visual obstructions notably reduce the level of project visibility	Visual obstructions slightly reduce the level of project visibility	Unobstructed view of Project components.
Horizontal Field of View	Visible turbines are seen over less than 2º of the horizon.	Visible turbines are seen over 2 to <15º of the horizon.	Visible turbines are seen over 15 to <30º of the horizon.	Visible turbines are seen over 30 to 45º of the horizon.	Visible turbines are seen over greater than 45º of the horizon.

SEASCAPE/LANDSCAPE COMPATABILITY					
	FAINT	**APPARENT**	**CONSPICUOUS**	**PROMINENT**	**DOMINANT**
Compatibility Evaluation	Project is indistinct or not obvious within the view, either due to its proximity, massing, width, height, number of structures, duration of view, scale, visibility or contrast with the surrounding seascape. Project causes a very small alteration to the seascape character, or features within the seascape, such that there is a de minimis change from the pre-existing condition.	Project is visible or evident within the view, either due to its proximity, massing, width, height, number of structures, duration of view, scale, visibility or contrast with the surrounding seascape. Project causes a small alteration to the seascape character, or features within the seascape, such that there is a perceptible change from the pre-existing condition.	Project is clearly visible and noticeable within the view, either due to its proximity, massing, width, height, number of structures, duration of view, scale, visibility or contrast with the surrounding seascape. Project causes a moderate alteration to the seascape character, or features within the seascape, such that there is a distinct change from the pre-existing condition.	Project stands out or is striking in the view, either due to its proximity, massing, width, height, number of structures, duration of view, scape, visibility or contrast with the surrounding seascape. Project causes a large alteration to the seascape character, or features within the seascape, such that there is an unmistakable change from the pre-existing condition.	Project commands or controls the view, either due to its proximity, massing, width, height, number of structures, duration of view, scale, visibility, or contrast with surrounding seascape. Project causes a very large alteration to the seascape character, or features within the seascape, such that here is a fundamental change from the pre-existing condition.

V01. Barnegat Lighthouse

BASELINE REPORT

Viewpoint Location	
Field ID #	288
Municipality, County	Barnegat Light, Ocean County
Location	Viewpoint is from the view platform at the top of Barnegat Lighthouse.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Jetty/Seawall
Scenic Resources	Viewpoint is from Barnegat Lighthouse (listed on NRHP) in Barnegat Lighthouse State Park. Island Beach State Park is located across the Barnegat Inlet from viewpoint.
Visual Character	
Vegetation	Forest cover; dune vegetation; street trees are visible from top of lighthouse.
Land Use	Residential development; conservation land; state park amenities; commercial waterfront development; public beach.
Topography	Slight variation in elevation.
Site Infrastructure	Concrete walkway with railings and benches on jetty; tower viewers; bicycle racks; covered and uncovered picnic areas; covered pavilion; interpretive panels; restrooms; parking lot.
Use Patterns	
Type of Activities	Climbing to top of lighthouse; bird watching; picnics; recreation in State Park; walking; fishing from jetty; learning maritime history.
Extent of Use	High usage by residents and visitors. Use in summer is anticipated to be greater than winter use.
Duration of Use	The State Park is open from 8:00 am to 6:00 pm and the lighthouse is open daily from 10 am to 4:30 pm[1]. Time spent at the top of the lighthouse viewing the seascape ranges from a few minutes to an hour, depending on purpose of visit. Time spent at the State Park ranges from a few minutes to a few hours.
Seascape Views	
Ocean View (in degrees)	There is a 360° view from the top of the lighthouse. Approximately 180° of the total view is toward the open ocean. The remaining 180° of the total view is of the marshland, Barnegat Light residential development and surrounding townships.
Contextual Features	The view to the ocean is clear from the top of the lighthouse. The visible landscape below extends across the town of Barnegat Light and the rest of Long Beach Island. Vertical features in the landscape include the water towers to the south and Atlantic City skyline.

[1] Official Tourism Website of New Jersey: https://www.visitnj.org/nj-lighthouses/barnegat-lighthouse

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V01	**Barnegat Lighthouse**	Jetty/Seawall	38.64 mi	11:34 AM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Moderate
Visible Topography	Moderate-High
Ocean or Marshland View	Low
Landscape Distinctiveness	Low
Natural Patterns	Low-Moderate
Development Patterns	Low

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	High
Primary Use	High
Value of Public Ocean View	High
Use Level	High
Visitor Expectations	Low-Moderate
Duration of View	Low-Moderate
Viewer Elevation	High

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

SUMMARY OF VISUAL EFFECTS

V01. Barnegat Lighthouse

As a prominent elevated structure and focal point in a State Park, and on the National Register of Historic Places, Barnegat Lighthouse is one of the most significant viewpoints within the Study Area. The unobstructed view looks due south over the densely developed communities at the northern end of Long Beach Island, where the landscape appears to be predominantly private residences and village commercial. The Project aligns with the Barnegat water tower, which is one of the few vertical elements in the view that breaks the horizon.

From the top of the lighthouse (viewer elevation of 123 ft) the closest turbine would be over 38 mi to the south. The turbines would theoretically be visible over a HFOV of approximately 17°, occupying less than 5% of the 360° view from the lighthouse. However, given the distance to the turbines, the effect of atmospheric perspective, and the limits of visual acuity, it is doubtful that any of the blades would be visible from the lighthouse. The apparent height of the closest turbines would be less than 1/8 inch, measured at arm's length. Under cloudy or hazy conditions, the Project is unlikely to be visible.

V02. Harvey Cedars Beach Access

BASELINE REPORT

Viewpoint Location	
Field ID #	282
Municipality, County	Harvey Cedars, Ocean County
Location	Viewpoint is located on sand dune pathway approximately 100 feet east of beach access point at end of East Cape May Avenue.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Beachfront
Scenic Resources	Viewpoint is from Municipal Beach Conservation Land. Viewpoint is near Life Saving Station #19 and Life Saving Crew Residence (eligible for NRHP).
Visual Character	
Vegetation	Dunegrass (relatively new plantings); mature dune vegetation between roadway and dune.
Land Use	Public beach; single-family residential development.
Topography	Moderate elevation variation, including very prominent dune topography (20-40 feet).
Site Infrastructure	Sand access pathway with wooden railings; trash can; wood split rail fence separating dunegrass from the pathway; benches.
Use Patterns	
Type of Activities	Beach going; walking, running, swimming, beach recreation.
Extent of Use	Low-moderate usage by residents and visitors. Beach use in summer is greater than winter use. Harvey Cedars has less than 400 full time residents.[2] Approximately 10,500 beach badges in Harvey Cedars were sold in 2018 (beach badge information from received from municipality).
Duration of Use	Waterfront activities vary in duration of use. Primary beach use is during daylight hours.
Seascape Views	
Ocean View (in degrees)	180° ocean view.
Contextual Features	There are no visual obstructions between the viewpoint and the ocean. Contextual features include dune vegetation, fencing, and residential development. Atlantic City skyline is not visible.

[2] http://www.longbeachislandjournal.com/communities/harvey-cedars

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V02	**Harvey Cedars Beach Access**	Beachfront (shoreline)	33.36 mi	10:59 AM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	Low-Moderate
Ocean or Marshland View	Low-Moderate
Landscape Distinctiveness	Moderate
Natural Patterns	Moderate
Development Patterns	Low-Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate
Primary Use	High
Value of Public Ocean View	High
Use Level	Low-Moderate
Visitor Expectations	Moderate
Duration of View	High
Viewer Elevation	Low

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

SUMMARY OF VISUAL EFFECTS

V02. Harvey Cedar's Beach Access

The viewpoint off Cape May Avenue in Harvey Cedars is typical of the views commonly found along the northern end of Long Beach Island at the northern end of the Study Area. The barrier island is relatively narrow, with a central road and small residential neighborhoods abutting the beach. The dune system is broad and at this viewpoint ranges in height up to approximately 25 ft. The viewpoint is at the edge of the dune, approximately 10 ft above the water.

From this viewpoint, turbine blades would theoretically be visible over a HFOV of approximately 20°, occupying approximately 11% of the 180° view; (the majority of the turbine hubs would be below the horizon and not visible). Given the 33 mi distance to the turbines, the effect of atmospheric perspective, and the limits of visual acuity, it is doubtful that any of the blades would be visible to the average person with an unaided eye from this viewpoint. Due to the curvature of the earth, some of the turbine hubs may be visible at or just above the horizon, where they may be seen over a HFOV of approximately 4° (2% of the ocean view). The apparent height of the closest turbines (the visible blades) would be less than 1/8 inch, measured at arm's length. The Project components may be faintly visible under ideal weather conditions; under cloudy or hazy conditions the Project may not be visible at all.

V03. Bayview Park

BASELINE REPORT

Viewpoint Location	
Field ID #	277
Municipality, County	Long Beach Twp, Ocean County
Location	Bayview Park is located between East 68th Street and East 69th Street on Ocean Boulevard. Viewpoint is from covered deck elevated above the sand dune.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Dunes
Scenic Resources	Viewpoint is located in Bayview Park overlooking Municipal Beach Conservation Land.
Visual Character	
Vegetation	Dunegrass (relatively new plantings); mature dune vegetation between roadway and dune.
Land Use	Public beach; mixed-use village development; municipal building and parking lot; single-family residential development; town park.
Topography	Some elevation variation includes a medium sized dune (10-20 feet).
Site Infrastructure	Covered pavilion (constructed 2018); Adirondack chairs; picnic tables; benches; trash receptacles; beach fencing; street parking.
Use Patterns	
Type of Activities	Beach recreation; live music at pavilion; picnicking.
Extent of Use	Moderate-high usage by residents and visitors. No beach badge information has been made available from Long Beach Twp.
Duration of Use	Waterfront activities vary in duration of use. Primary beach use during daylight hours. Visitors to covered pavilion may spend 30 minutes to 2 hours.
Seascape Views	
Ocean View (in degrees)	180° ocean view.
Contextual Features	There are no visual obstructions between the viewpoint and the ocean. Contextual features include dune vegetation, fencing, and residential development. Atlantic City skyline is not visible.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V03	**Bayview Park**	Dunes (shoreline)	28.08 mi	10:14 AM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	Moderate
Ocean or Marshland View	Low-Moderate
Landscape Distinctiveness	Low-Moderate
Natural Patterns	Moderate
Development Patterns	Low

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate
Primary Use	High
Value of Public Ocean View	High
Use Level	Moderate-High
Visitor Expectations	Moderate
Duration of View	Moderate
Viewer Elevation	Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

SUMMARY OF VISUAL EFFECTS

V03. Bayview Park

Bayview Park is the focal point for many of Harvey Cedar's outdoor recreation activities, featuring a covered oceanfront pavilion with picnic tables and benches, accessible walkways, and nearby public parking. The viewpoint is typical of the elevated views that are possible from the top of the dunes that parallel the shoreline throughout the barrier islands. The viewpoint in Long Beach Township is centrally located on the island, with a main road (Long Beach Boulevard) and a secondary road that parallels the beach. There are numerous small residential neighborhoods and single-family homes abutting the back dune. Access is typically provided at the end of each of the local streets. The dune system is broad and ranges in height. At this viewpoint, the dunes reach approximately 25 ft. The viewpoint is in a newly constructed pavilion, approximately 30 ft above the water, which affords an unobstructed view of the ocean and the Project. The pavilion has been designed to focus attention on the open ocean, generally due east from the beach.

From the pavilion, at a distance of over 28 miles south to the Project, over half of the turbine hubs would be theoretically visible just above the horizon due to the curvature of the earth. While the turbine blades would theoretically be visible, the average person should not be able to detect them at this distance with an unaided eye due to the relative thinness of the blades and the limits of visual acuity. The turbines would occupy a HFOV of approximately 23°, or less than 13% of the 180° ocean view. The apparent height of the closest turbines (the very tops of the hubs and blades) would be less than 1/8 inch, measured at arm's length. The project components would be faintly visible from the pavilion due to the effects of distance, atmospheric perspective, and curvature of the earth. Under cloudy or hazy conditions, the turbines would have minimal contrast with the background and it is likely that the Project may not be visible at all.

V04. Garden State Parkway

BASELINE REPORT

Viewpoint Location	
Field ID #	253
Municipality, County	Port Republic City, Atlantic County
Location	Viewpoint is on east side of the Garden State Parkway on bridge over Mullica River.
Physiographic Area	Mainland
Landscape Similarity Zone (LSZ)	Inland
Scenic Resources	Viewpoint is located in the Garden State Parkway Historic District (eligible for NRHP) and on the Pine Barrens Scenic Byway [3] [4]. Viewpoint is near Swan Bay Wildlife Management Area; Port Republic Wildlife Management Area; and Gulf Service Station (eligible for NRHP).
Visual Character	
Vegetation	Marsh vegetation is visible from roadway.
Land Use	Vehicular travel (Garden State Parkway); waterfront development on the Mullica River shoreline. Pine Barrens Byway/Pinelands Natural Heritage Trail.
Topography	Slight variation in elevation over marshland and river. Highway bridge approximately 40 ft above water level.
Site Infrastructure	Highway infrastructure (roadway; guardrails; lighting) and shoreline development along Mullica River.
Use Patterns	
Type of Activities	Highway vehicular travel (65 mph+)
Extent of Use	High usage by residents and visitors.
Duration of Use	Views over open marsh extend for nearly two miles in this section of the highway. Duration of view from the bridge is a few seconds in length.
Seascape Views	
Ocean View (in degrees)	Marshland and barrier islands obstruct view of open ocean.
Contextual Features	Highway infrastructure; marsh vegetation; open water; Atlantic City skyline, shoreline development. Views to the ocean are obstructed by marshland and barrier islands. In leaf-off conditions, roadside vegetation may increase views of marshland.

[3] NJ Scenic Byways Program Guidebook: https://www.state.nj.us/transportation/community/scenic/pdf/2013guidebook.pdf

[4] Pine Barrens Scenic Byway Corridor Management Plan: https://www.nj.gov/pinelands/landuse/recent/byway/PineBarrens_CMP.pdf

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V04	**Garden State Parkway**	Inland (mainland)	27.98 mi	8:03 AM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Low
Visible Topography	Moderate-High
Ocean or Marshland View	Low
Landscape Distinctiveness	Low-Moderate
Natural Patterns	Low-Moderate
Development Patterns	Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	High
Primary Use	Moderate-High
Value of Public Ocean View	Low
Use Level	High
Visitor Expectations	Low-Moderate
Duration of View	Low
Viewer Elevation	Moderate-High

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

SUMMARY OF VISUAL EFFECTS

V04. Garden State Parkway

The viewpoint from the bridge over Mullica River (40 ft elevation) on the Garden State Parkway is representative of the periodic views of the Project that southbound travelers would encounter as they pass through the Study Area in a moving vehicle. The Garden State Parkway is designated as a historic district eligible for listing on the NRHP. The section of the Parkway where the viewpoint is located is a component of the Pine Barrens Scenic Byway, designated by the NJ Department of Transportation. At this viewpoint motorists will have a brief view over the marshland of Swan Bay Wildlife Management Area in the foreground and midground. The focal point of the view is the reverse curve in the Mullica River and the interface between the river and the mixed-use development on its western shoreline. Residential development, topography, and tree cover on the barrier islands to the south-southeast prevent visibility of the open ocean.

From this viewpoint, southbound motorists would be able to see the tops of the turbines over a HFOV of approximately 8° over the marshland; the majority of the Project would be screened by the landforms and tree cover on Brigantine Island. Northbound motorists would not be able to see the project from this viewpoint location due to the orientation of the highway in relation to the project. The apparent height of the visible portion of the turbines would be less than 1/8", measured at arm's length. At a distance of nearly 28 miles, any views of the Project would be fleeting and faint and would not distract the driver's attention. Under cloudy or hazy conditions, the turbines would have minimal contrast with the background and it is likely that the Project may not be visible at all. The average person in a moving vehicle on the Garden State Parkway should not be able to detect the blades at this distance with an unaided eye.

V05. Edwin B. Forsythe National Wildlife Refuge - Holgate Unit

BASELINE REPORT

Viewpoint Location	
Field ID #	252
Municipality, County	Long Beach, Ocean County
Location	Viewpoint is located on beachfront at Bay Avenue entry to the Edwin B. Forsythe National Wildlife Refuge - Holgate Unit.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Beachfront
Scenic Resources	Viewpoint is between Edwin B. Forsythe National Wildlife Refuge - Holgate Unit and Beach Haven Heights Park.
Visual Character	
Vegetation	Dunegrass
Land Use	Public beach; conservation area; single-family residential development.
Topography	Some elevation variation. There is significant dune erosion in this area, resulting in an immediate drop in topography between the parking lot and beachfront.
Site Infrastructure	Parking lot; restroom building; beach access ramp; rock jetty; seawall and pilings; National Wildlife Refuge signage.
Use Patterns	
Type of Activities	Bird watching; fishing, beach recreation; beach or trail walking.
Extent of Use	Moderate-high usage by residents and visitors. Each year the Edwin B. Forsythe National Wildlife Refuge as a whole draws 250,000 visitors.[5]
Duration of Use	Duration of use varies greatly by activity. It is estimated that visitors may spend over four hours at the beach. The Wildlife refuge is open during daylight hours (parking lot is closed from 10:00 pm to 5:00 am).
Seascape Views	
Ocean View (in degrees)	180° ocean view.
Contextual Features	There are no visual obstructions between the viewpoint and the ocean. Contextual features include dune vegetation, fencing and erosion prevention infrastructure, and residential development. Atlantic City skyline is visible to the south.

[5] National Wildlife Refuge Visitor Survey 2012: Individual Refuge Results for Edwin B. Forsythe National Wildlife Refuge: https://pubs.usgs.gov/ds/754/NortheastRegion(R5)/Edwin%20B.%20Forsythe%20NWR%20-%20NWR%20visitor%20survey%202012.pdf

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V05	**Edwin B. Forsythe National Wildlife Refuge - Holgate Unit**	Beachfront (shoreline)	22.58 mi	7:57 AM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Moderate
Visible Topography	Moderate
Ocean or Marshland View	Low-Moderate
Landscape Distinctiveness	Low-Moderate
Natural Patterns	Low-Moderate
Development Patterns	Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	High
Primary Use	High
Value of Public Ocean View	High
Use Level	Moderate-High
Visitor Expectations	Moderate
Duration of View	High
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Apparent

V05. Edwin B. Forsythe National Wildlife Refuge - Holgate Unit

The viewpoint is typical of the views from the southern end of Long Beach Island, the barrier island at the northern end of the Study Area. The viewpoint also illustrates views from the interface between the densely developed community of Long Beach to the north, and the naturalness of the Edwin B. Forsythe National Wildlife Refuge to the south. The Atlantic City skyline is visible to the south at a distance of approximately 14 miles. The 400-acre Holgate Unit is a designated Wilderness Area. Holgate is closed to the public during shorebird breeding season (April 1 through August 31) to protect the significant habitat for beach nesting birds.

From this viewpoint, at a distance of over 22 miles south to the nearest turbine, the hubs of most turbines would be visible just above the horizon. The apparent height of the visible portion of the turbines would be less than 1/8", measured at arm's length. The turbine blades would be visible under clear weather conditions, although they may be somewhat difficult to detect with an unaided eye due to the relative thinness of the blades. Under cloudy or hazy weather conditions, the turbines would have minimal contrast with the background. The turbines would occupy a HFOV of approximately 28°. In an unobstructed view from the beach, as depicted in the visualization, the turbines would be apparent to the average viewer. From the Holgate Unit, the vertical lines of the turbines would be seen as one of the few non-natural elements in view.

V06. Great Bay Boulevard Wildlife Management Area

BASELINE REPORT

Viewpoint Location	
Field ID #	274
Municipality, County	Little Egg Harbor Twp, Ocean County
Location	Viewpoint is located at east end of beach at end of Great Bay Boulevard.
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: Little Egg Harbor U.S. U.S. Coast Guard Station #119; Station House; and Boat House.
Visual Character	
Vegetation	Dunegrass; coastal scrub-shrub vegetation.
Land Use	Conservation land; Rutgers University Marine Field Station on site.
Topography	Slight variation in elevation in marshland and coastal dunes (5-10 feet).
Site Infrastructure	Rutgers University Marine Field Station; wooden boardwalk to station; 40-foot utility poles; chain link fence; Great Bay Boulevard (a ten-mile road that extends from Tuckerton through the Great Bay Wildlife Management Area); parking on roadway.
Use Patterns	
Type of Activities	Fishing; small water craft launch site; birdwatching; walking; biking.
Extent of Use	Low-moderate usage by residents and visitors.
Duration of Use	Time spent at beach ranges from a few minutes to hours, depending on purpose of visit.
Seascape Views	
Ocean View (in degrees)	Approximately 30° view of the open ocean through the Little Egg Inlet. Approximately 180° of the view looking over inner bay and island communities
Contextual Features	The marshland, open bay water, and the barrier island of Brigantine occupy the space between the viewpoint and the open ocean. The Atlantic City skyline is visible to the southwest of this location. Rutgers University Marine Field Station is the only structure in the immediate vicinity.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V06	**Great Bay Boulevard Wildlife Management Area**	Marshland (marsh + bay)	21.85 mi	9:40 AM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Low
Visible Topography	Moderate-High
Ocean or Marshland View	Low
Landscape Distinctiveness	Low
Natural Patterns	Low
Development Patterns	Low

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	High
Primary Use	High
Value of Public Ocean View	High
Use Level	Low-Moderate
Visitor Expectations	High
Duration of View	Low-Moderate
Viewer Elevation	Low

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	Low-Moderate
Horizontal Field of View	Low-Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

V06. Great Bay Boulevard Wildlife Management Area

The viewpoint at the edge of Great Bay Boulevard National Wildlife Refuge is typical of the views from the Marshland LSZ. The focal point from the publicly accessible portion of the WMA in this area is the group of buildings associated with the U.S. Coast Guard Station #119 (Rutgers Marine Field Station), which are eligible for listing on the NRHP. A portion of the view looks out over open water. The majority of the view to the ocean is screened by the land mass and vegetation on the barrier islands. An undeveloped barrier island (included in the Edwin B. Forsythe National Wildlife Refuge – Holgate Unit) and Brigantine Island screen most of the open ocean view. The Atlantic City skyline also occupies a portion of the view toward the ocean. Great Bay Boulevard provides access to the beach, where the views to the ocean and the Project are due south; the buildings are on a site due west of the beach.

From this viewpoint, a distance of nearly 22 miles south to the nearest turbine, the hubs of most turbines would be visible when they are seen over open water. However, the islands between the viewpoint and the Project screen all but the tips of the blades from this viewpoint. Those blades that do appear above the barrier islands would be difficult to detect under these atmospheric conditions. While the Project would occupy a theoretical HFOV of approximately 30°; views of the turbine hubs and bases would limited to a 13° HFOV where they would be seen over open water. The apparent height of the visible portion of the turbines over the open water would be less than 1/8", measured at arm's length. The turbine blades exhibit greater visibility under clear weather conditions, although they may be somewhat difficult to detect with an unaided eye due to the relative thinness of the blades. Under cloudy or hazy weather conditions, as seen in this visualization, the turbines would have minimal contrast with the sky. In the view from the beach, as depicted in the visualization, the turbines would be faintly visible to the average viewer over the open ocean and the blades would be less visible over the barrier islands.

V07. Edwin B. Forsythe National Wildlife Refuge

BASELINE REPORT

Viewpoint Location	
Field ID #	238
Municipality, County	Galloway Twp, Atlantic County
Location	Viewpoint is at most southern point on Wildlife Drive in the Edwin B. Forsyth National Wildlife Refuge.
Physiographic Area	Marsh + Bay
Landscape Similarity Zone (LSZ)	Marshland
Scenic Resources	Viewpoint from Edwin B. Forsythe National Wildlife Refuge. Viewpoint near Absecon Wildlife Management Area and Oceanville / Leeds Point / Moss Mill Historic District (eligible for NRHP).
Visual Character	
Vegetation	Marsh vegetation.
Land Use	Conservation area.
Topography	No variation in elevation.
Site Infrastructure	Dirt roadway and observation platforms. At NWR entry includes visitor amenities (restrooms, information area, benches).
Use Patterns	
Type of Activities	Bird watching; wildlife observation; photography; walking; biking; scenic drive.
Extent of Use	Moderate to high use by residents and visitors. Each year the refuge draws approximately 250,000 visitors.[6]
Duration of Use	The Refuge is open sunrise to sunset. Time spent at the viewpoint may be several minutes. A drive on the 8-mile Wildlife Drive loop road may be done in less than an hour. Wildlife observation at the National Wildlife Refuge ranges may take up to a few hours.
Seascape Views	
Ocean View (in degrees)	There are no views of open ocean. Approximately 180° of the view looking over inner bay and island communities.
Contextual Features	Views to the ocean are of the inner bay and island communities [Atlantic City, Margate City Ventnor City, and Brigantine], with views of residential properties and the Atlantic City skyline. The Edwin B. Forsyth National Wildlife Refuge faces the Project. The Project would be seen over marsh and bay landscape, and more visible when vegetation had leaf off conditions. Elements influencing the Project are the barrier island of Brigantine to the southeast and the Atlantic City skyline to the south, which may screen the Project.

[6] National Wildlife Refuge Visitor Survey 2012: Individual Refuge Results for Edwin B. Forsythe National Wildlife Refuge: https://pubs.usgs.gov/ds/754/NortheastRegion(R5)/Edwin%20B.%20Forsythe%20NWR%20-%20NWR%20visitor%20survey%202012.pdf

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V07	**Edwin B. Forsythe National Wildlife Refuge**	Marshland (marsh + bay)	20.04 mi	5:45 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Low
Visible Topography	High
Ocean or Marshland View	Low
Landscape Distinctiveness	Low
Natural Patterns	Low
Development Patterns	Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	High
Primary Use	Moderate-High
Value of Public Ocean View	Low
Use Level	Moderate-High
Visitor Expectations	Moderate-High
Duration of View	Moderate
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low-Moderate
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	Low-Moderate
Horizontal Field of View	Moderate-High

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

V07. Edwin B. Forsythe National Wildlife Refuge

The viewpoint in the middle of the Edwin B. Forsythe National Wildlife Refuge is typical of the views from the Marsh + Bay physiographic area in the vicinity of Brigantine north of Atlantic City. The viewpoint is at the southernmost corner of Wildlife Drive, which affords a panoramic view of the surrounding marshlands and bays, extending east to the dense development on the horizon. The land mass, development patterns, and vegetation on Brigantine Island currently block views of the ocean to the south.

From this viewpoint on Wildlife Drive, the development and forest cover on Brigantine will partially screen views of some turbines. Some of the hubs and most of the turbine blades will be visible, appearing over the tops of the residential development on the island. The Project would have a theoretical HFOV of 33°. In reality there would not be a continuous horizontal view of the Project due to the screening effect of the residential development, water towers, cell towers, the Brigantine Hotel, and other types of development.

The closest turbine would be approximately 20 miles to the south. At that distance under clear weather conditions the turbine towers and blades would be faint to the average viewer, especially when the blades are moving. In cloudy or hazy conditions, the Project would be considerably less visible as the light-colored turbines and blades would blend in with the background sky. The visual presence of the Atlantic City skyline and development in Brigantine in the midground viewing distance would be greater than the Project turbines, which would be seen in the far background. The primary viewers in the National Wildlife Refuge are likely to be birdwatchers and naturalists, whose focus is on the marshlands and bay habitats in the foreground.

V08. Absecon Creek Boat Ramp

BASELINE REPORT

Viewpoint Location	
Field ID #	221
Municipality, County	Absecon, Atlantic County
Location	Viewpoint from parking area at top of the Absecon Boat Ramp at Faunce Landing.
Physiographic Area	Marsh + Bay
Landscape Similarity Zone (LSZ)	Marshland
Scenic Resources	The Absecon Creek Boat Ramp is near the North Shore Road Historic District (eligible for NRHP), Absecon Wildlife Management Area, and Faunce Landing (Absecon 3 Conservation Land).
Visual Character	
Vegetation	Marsh vegetation; scrub shrub; tree canopy.
Land Use	Single-family residential; boat launch facilities.
Topography	Slight variation in elevation between low-lying marshland and more upland areas.
Site Infrastructure	Boat ramp; trash receptacles; benches; lights; picnic tables; parking lot; Faunce Landing signage.
Use Patterns	
Type of Activities	Boat launch; fishing; crabbing; wildlife observation; picnicking.
Extent of Use	Moderate to high use by visitors and residents.
Duration of Use	Time spent Faunce Landing may range from 30 minutes (boat launch) to 2 hours (wildlife viewing, picnicking), depending on purpose of visit.
Seascape Views	
Ocean View (in degrees)	There are no views of open ocean. Approximately 130° view looking over inner bay and island communities. Route 87 Bridge blocks any potential ocean view over the Absecon Inlet.
Contextual Features	Marshland and the bay occupy the foreground and midground of the viewpoint. Atlantic City and Brigantine are the nearest barrier island communities (approximately 4 mi from boat launch).

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V08	**Absecon Creek Boat Ramp**	Marshland (marsh + bay)	21.01 mi	3:13 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Low-Moderate
Visible Topography	Moderate-High
Ocean or Marshland View	Moderate
Landscape Distinctiveness	Moderate
Natural Patterns	Low-Moderate
Development Patterns	Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate-High
Primary Use	Moderate-High
Value of Public Ocean View	Low
Use Level	Moderate-High
Visitor Expectations	Moderate
Duration of View	Moderate
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	Low
Horizontal Field of View	Low

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

V08. Absecon Creek Boat Ramp

This viewpoint in the edge of Absecon Wildlife Management Area is typical of the views from the Marsh + Bay physiographic area in the sheltered bay between Brigantine and the mainland, north of Atlantic City. The Absecon Creek Boat Ramp provides access into Absecon Bay, a protected inlet with calm, deep water that is known for the quality of fishing for estuarine species. The dominant man-made feature visible from the boat ramp is the Atlantic City skyline, seen at distance of 5.5 miles to the southwest over the Absecon Wildlife Management Area. The view from the boat ramp also includes the five wind turbines of the Jersey-Atlantic Wind Farm located at the Atlantic City Wastewater Treatment Plant, approximate 4 miles away. The 1.5 MW turbines have a hub height of 262 ft and an overall height of 380 ft. The turbines are a highly visible part of the Atlantic City landscape and recreational boating areas.

From this viewpoint, the Project is aligned with the high-rise hotels and casinos of Atlantic City. The turbines would be faint to virtually indistinguishable under most atmospheric conditions. While several of the hubs and blades would theoretically be visible, their presence would be inconsequential in the context of the urban development that characterizes Atlantic City and the existing wind farm. The primary viewers in Absecon Bay are likely to be fishermen, birdwatchers, and boaters, whose focus is on the marshlands and bay habitats in the foreground distance zone.

V09. North Brigantine Natural Area Wildlife Observation Deck

BASELINE REPORT

Viewpoint Location	
Field ID #	246
Municipality, County	Brigantine, Atlantic County
Location	Southern corner on the second level at the North Brigantine Natural Area Wildlife Observation Deck.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Dunes
Scenic Resources	Visualization is from North Brigantine Natural Area.
Visual Character	
Vegetation	Marsh vegetation; dunegrass.
Land Use	Conservation area. South of viewpoint, adjacent land use is multi-family residential development.
Topography	Slight variation in elevation in the marsh, dune, and beach topography.
Site Infrastructure	Parking area (gravel surface); two-story wood observation deck.
Use Patterns	
Type of Activities	Wildlife observation; bird watching; scenic viewing, driving on beach, fishing from beach.
Extent of Use	Low-moderate usage by residents and visitors.
Duration of Use	Length of time at Wildlife Observation Deck generally limited to less than hour. Fishing activities on adjacent beach vary in duration of use.
Seascape Views	
Ocean View (in degrees)	There is a 360° view from the top of the Wildlife Observation Deck. Approximately 160° of the total view is toward the open ocean. The remaining 200° of the total view is of the marshland and Brigantine residential development.
Contextual Features	From the second level of the wildlife observation deck, there are no visual obstructions between the viewpoint and the ocean. From the parking area at the base of the observation tower, the dunes and dune vegetation block views to the beach and ocean. Contextual features include Brigantine residential development and Atlantic City skyline. The visual interest in the tidal marsh to the northwest may compete with ocean views for viewer attention.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V09	**North Brigantine Natural Area Wildlife Observation Deck**	Dunes (shoreline)	16.77 mi	6:33 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Low-Moderate
Visible Topography	Moderate-High
Ocean or Marshland View	Low
Landscape Distinctiveness	Low
Natural Patterns	Low-Moderate
Development Patterns	Low-Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate-High
Primary Use	High
Value of Public Ocean View	High
Use Level	Low-Moderate
Visitor Expectations	Moderate-High
Duration of View	Low-Moderate
Viewer Elevation	Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low-Moderate
Vertical Field of View (apparent height measured at arm's length)	Moderate
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate-High

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Conspicuous

SUMMARY OF VISUAL EFFECTS

V09. North Brigantine Natural Area Wildlife Observation Deck

The viewpoint on the North Brigantine Natural Area is characteristic of the interface between the densely developed northern end of Brigantine (Island Community LSZ) and the southern end of the North Brigantine Natural Area, a two-mile stretch of beach / dune habitat backed by extensive maritime forests and tidal marshes (Beachfront, Dunes, Marshland, and Bay/Shoreline LSZs). The wildlife observation tower affords an excellent opportunity to see marine mammals, shorebirds, and sea birds.

From the second story of the tower, the Project (turbines and offshore substations) would be visible in the south-southeast, at a distance of over 16 miles to the closest turbine, the furthest turbine would be approximately 29 miles away. The visualization shows optimum visibility under partly sunny conditions. Under cloudy or hazy conditions, visibility would be reduced. The turbines would be seen over a HFOV of 37°. The apparent height of the closest turbines (water level to the top of a blade) would be approximately 1/4 inch, measured at arm's length. The Project would introduce a new visual element to the seascape and be conspicuous to the average viewer. The elevated viewpoint would provide visitors with the opportunity to see a much different view of the Project.

V10. 16th Street Park Beachfront

BASELINE REPORT

Viewpoint Location	
Field ID #	243
Municipality, County	Brigantine, Atlantic County
Location	Viewpoint is from public beach in front of 17th Street beach access, approximately 450 ft southwest of the Brigantine Hotel.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Beachfront
Scenic Resources	Viewpoint from Public Beach conservation land. Viewpoint is near the Legacy Vacation Club, also known as Brigantine Hotel (identified historic property - no official NRHP eligibility determination).
Visual Character	
Vegetation	Dunegrass; woody dune vegetation.
Land Use	Public Beach, single-family residential development, hotel development.
Topography	Slight variation in the dune topography.
Site Infrastructure	Beach Patrol Building; wood shed; lifeguard chairs; trash receptacles; parking lot.
Use Patterns	
Type of Activities	Beach recreation; swimming; fishing, walking.
Extent of Use	Moderate-high usage by residents and visitors. There were approximately 44,000 beach badges were sold in 2018 (beach badge information from received from municipality).
Duration of Use	Beach recreation activities vary in duration of use. Primary use during daylight hours. A few minutes to a few hours are spent at this location.
Seascape Views	
Ocean View (in degrees)	180° view of open ocean from this location.
Contextual Features	Views to the ocean are clear. Beach attendants with umbrellas will influence views to the ocean. The Atlantic City skyline influence views toward the ocean. The Project will be visible from this viewpoint to the southwest.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V10	**16th Street Park Beachfront**	Beachfront (shoreline)	16.22 mi	6: 09 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	Moderate-High
Ocean or Marshland View	Low-Moderate
Landscape Distinctiveness	Moderate
Natural Patterns	Moderate
Development Patterns	Low-Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate
Primary Use	High
Value of Public Ocean View	High
Use Level	Moderate
Visitor Expectations	Moderate
Duration of View	High
Viewer Elevation	Low

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Moderate
Vertical Field of View (apparent height measured at arm's length)	Moderate
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate-High

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Conspicuous

V10. 16th Street Park Beachfront

The view from the Brigantine public beach near the Brigantine Hotel is typical of the Beachfront LSZ found along the barrier islands north of Atlantic City. The beach here is approximately 300 ft in width; to the south the width increases to 500 ft; to the north the width decreases to less than 100 ft. The dunes tend to be well vegetated and moderately high (up to 10 ft) near the hotel. Further to the south on Brigantine Island, the dunes achieve a width of close to 0.25 mi, preventing visual contact with the ocean for the abutting residential communities.

From the beach, the entire Project (hubs and turbines) would be visible to the south-southeast at a distance of just over 16 miles to the closest turbine. The visualization shows twilight conditions under a partly cloudy sky, just as the sun is setting and the FAA aviation warning lights would be activated (by using an ADLS). The turbines would be seen over a HFOV of 39°. The closest turbine would be seen at a distance of 16.2 miles; the furthest turbine would be seen at a distance of approximately 27 miles. The apparent height of the closest turbines would be approximately 1/4 inch, measured at arm's length. The Project would introduce a new visual element to the seascape and be apparent to the average viewer at this time of the evening. Under brighter viewing conditions, especially with full sun, the turbines would have a greater presence on the seascape and would appear conspicuous to the average viewer.

V11. Atlantic City Country Club

BASELINE REPORT

Viewpoint Location	
Field ID #	197
Municipality, County	Northfield, Atlantic County
Location	Viewpoint is located adjacent to the parking lot at the entrance to the Atlantic City Country Club on Leo Fraser Drive.
Physiographic Area	Mainland
Landscape Similarity Zone (LSZ)	Inland
Scenic Resources	Viewpoint from Shore Road Historic District (identified historic property - no official NRHP eligibility determination). Viewpoint near Stillwater Park conservation land; Linwood Bike Path; and Northfield 1 conservation land.
Visual Character	
Vegetation	Manicured turf grass; shade trees; ornamental plantings; marsh vegetation.
Land Use	Golf course; single-family residential development; conservation area.
Topography	Slight variation in elevation.
Site Infrastructure	Clubhouse; parking lot, utility poles, landscape lighting. flag pole; paved pathways; benches; golf course amenities.
Use Patterns	
Type of Activities	Golf; dining; weddings/events.
Extent of Use	Moderate to high use level by members and guests.
Duration of Use	Length of time at Atlantic City Country Club varies depending on activity. Golf may occupy 2 to 4 hours.
Seascape Views	
Ocean View (in degrees)	There are no views of the ocean.
Contextual Features	The context in the immediate vicinity is a golf course, the Clubhouse, and other associated infrastructure. There are views over the marshland and open bay are seen in the context of the Atlantic City skyline as well as development in Longport, Margate, and Ventnor City.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V11	**Atlantic City Country Club**	Inland (mainland)	19.71 mi	12:10 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Moderate-High
Visible Topography	Moderate-High
Ocean or Marshland View	Moderate-High
Landscape Distinctiveness	Moderate
Natural Patterns	Moderate
Development Patterns	Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate-High
Primary Use	Moderate-High
Value of Public Ocean View	Low
Use Level	Moderate-High
Visitor Expectations	Moderate-High
Duration of View	Moderate-High
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Moderate
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	Low
Horizontal Field of View	Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

V11. Atlantic City Country Club

The view from the Atlantic City Country Club may be considered representative of the Inland LSZ, in that it provides a filtered view of the distant landscape over the Marsh + Bay physiographic area and the barrier island communities of Margate and Ventnor. The public Country Club is in the Town of Northfield's Shore Road Historic District; the viewpoint is near the Stillwater Park conservation land.

From this viewpoint, the closest turbine would be over 19 miles away and seen in the context of the highly developed barrier island south of Atlantic City. The turbines would be partially screened by foreground trees on the golf course and the low and midrise residential buildings in Margate and Ventnor. The Project would theoretically be seen over a HFOV of 23°, although the view would be interrupted by buildings and vegetation. While the hubs and blades would be faintly visible, their presence would be inconsequential in the context of the expansive foreground and midground view, and the more distant structures on the horizon. Under brighter viewing conditions with full sun, the turbine would have a somewhat greater presence, but the Project would not be seen as a whole due to the interruption from the mid-rise island structures.

V12. Atlantic City Beachfront (Day)

BASELINE REPORT

Viewpoint Location	
Field ID #	310
Municipality, County	Atlantic City, Atlantic County
Location	Viewpoint is located on beach access ramp between Steel Pier and Schiff's Central Pier, approximately 140 feet south of the boardwalk.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Dunes
Scenic Resources	Viewpoint from public beach conservation area. Viewpoint near Atlantic City Boardwalk Historic District (identified historic property - no official NRHP eligibility determination).
Visual Character	
Vegetation	Dunegrass
Land Use	Public beach; boardwalk development high-rise casinos; amusement piers.
Topography	Slight variation in dune topography.
Site Infrastructure	Atlantic City; Boardwalk, wood access ramps, sand access pathways, lifeguard towers; beach sheds; boardwalk and casino development.
Use Patterns	
Type of Activities	Walking, running, sightseeing; beach recreation; shopping; boardwalk amusement.
Extent of Use	High use by visitors and residents. There are over 20 million visitors to Atlantic City each year.[7]
Duration of Use	Beachfront and boardwalk activities vary in duration of use. Beach use may be in excess of four hours at a time.
Seascape Views	
Ocean View (in degrees)	Approximately 120° view of open ocean from this location.
Contextual Features	The ocean view is framed by Steel Pier (to the east) and Schiff's Central Pier (to the west). Other contextual features included commercial boardwalk development and dune vegetation.

[7] "Atlantic City By The Numbers." Atlantic City Boardwalk: A Stroll On the Wooden Way Is Steeped in History - Atlantic City Story Ideas: https://www.atlanticcitynj.com/media/fact-sheets/details.aspx?factSheetID=27

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V12	**Atlantic City Beachfront (Day)**	Dunes (shoreline)	16.04 mi	2:39 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	Moderate-High
Ocean or Marshland View	Moderate
Landscape Distinctiveness	Low-Moderate
Natural Patterns	Moderate-High
Development Patterns	High

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate-High
Primary Use	High
Value of Public Ocean View	High
Use Level	High
Visitor Expectations	Low
Duration of View	High
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Moderate
Vertical Field of View (apparent height measured at arm's length)	Moderate
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate-High

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Conspicuous

V12. Atlantic City Beachfront (Day)

The viewpoint is characteristic of the typical views looking out to the Atlantic Ocean from the top of the dune system that parallels the boardwalk in Atlantic City. The view encompasses not only the ocean, but also the public beach and the top of Steel Pier to the north. Schiff's Central Pier (to the south and out of view in this photograph) and Steel Pier limit views of the water to approximately 120° from this viewpoint. The beach, along with the boardwalk and the piers, receive heavy public use during the summer months when vacationers are drawn to the Jersey Shore. Visitors to the beach are exposed to a continuous assortment of parasails, tour boats, advertising boats and planes, and other waterfront commercial activity.

From this location the Project (turbines and offshore substations) would be seen over a HFOV of 41°. While curvature of the earth would reduce the apparent size of the turbines furthest from this viewpoint (approximately 25 miles), the hubs and blades from all the turbines would be visible under optimum weather conditions. The apparent height of the closest turbines (the very tops of the hubs and blades) would be approximately 1/4 inch, measured at arm's length. Under these atmospheric conditions, their light color and reflected sunlight would make the Project elements conspicuously visible on the horizon. The Project would introduce new visual elements to the seascape that would be seen in context of the commercial and recreational activity that is characteristic of the Atlantic City waterfront.

V13. Atlantic City Beachfront (Night)

BASELINE REPORT

Viewpoint Location	
Field ID #	318
Municipality, County	Atlantic City, Atlantic County
Location	Viewpoint is located on beach access ramp between Steel Pier and Schiff's Central Pier, approximately 140 feet south of the boardwalk.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Dunes
Scenic Resources	Viewpoint from public beach conservation area. Viewpoint near Atlantic City Boardwalk Historic District (identified historic property - no official NRHP eligibility determination).
Visual Character	
Vegetation	Dunegrass
Land Use	Public beach; boardwalk development high-rise casinos; amusement piers.
Topography	Slight variation in dune topography.
Site Infrastructure	Atlantic City; Boardwalk, wood access ramps, sand access pathways, lifeguard towers; beach sheds; boardwalk and casino development; lights.
Use Patterns	
Type of Activities	Sightseeing, shopping; boardwalk amusement.
Extent of Use	High use by visitors and residents. There are over 20 million visitors to Atlantic City each year.[8]
Duration of Use	The beachfront is not used at night for beach recreation. Visitors are more likely to use the boardwalk. Duration of use maybe range from 30 minutes to two hours.
Seascape Views	
Ocean View (in degrees)	Approximately 120° view of open ocean from this location.
Contextual Features	The ocean view is framed by Steel Pier (to the east) and Schiff's Central Pier (to the west). The ambient lighting from the casinos, boardwalk, and amusement piers illuminate the landscape during evening and nighttime hours.

[8] "Atlantic City By The Numbers." Atlantic City Boardwalk: A Stroll On the Wooden Way Is Steeped in History - Atlantic City Story Ideas: https://www.atlanticcitynj.com/media/fact-sheets/details.aspx?factSheetID=27

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V13	**Atlantic City Beachfront (Night)**	Dunes (shoreline)	16.04 mi	10:45 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	Moderate-High
Ocean or Marshland View	Moderate
Landscape Distinctiveness	Low-Moderate
Natural Patterns	Moderate-High
Development Patterns	High

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate-High
Primary Use	Moderate
Value of Public Ocean View	Low-Moderate
Use Level	High
Visitor Expectations	Low
Duration of View	Moderate
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Moderate
Vertical Field of View (apparent height measured at arm's length)	Low-Moderate
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate-High

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Apparent

V13. Atlantic City Beachfront (Night)

Atlantic City at night has a totally different physical presence. The boardwalk during summer months tends to be more crowded, beach use is almost nonexistent. The amusement parks on the piers continue into the late evening hours with spinning observation wheels, brightly lit rides, and other attractions. Oversize monitors and speakers along the boardwalk contribute to the festive atmosphere, reinforced by tourist shops, restaurants, and casinos. The focus is clearly on the boardwalk that parallels the beach, although few people are seen looking out to the ocean.

If someone were to look east out to the ocean, the FAA warning lights on the turbine hubs and midpoint on the towers would be apparent, especially if they were standing in a place that is not affected by the bright lights of the boardwalk and their eyes grew accustomed to the relative darkness. The visualization provides a worst-case view of the Project, i.e., when the lights would be lit and pulsing in unison. By using an aircraft detection lighting system (ADLS), the lights would remain off under most conditions and the Project would not be visible after sunset.

V14. Playground Pier

BASELINE REPORT

Viewpoint Location	
Field ID #	200
Municipality, County	Atlantic City, Atlantic County
Location	Viewpoint is located at the end of Playground Pier, which extends approximately 900 ft from the boardwalk over beach and open water.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Ocean
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).
Visual Character	
Vegetation	None.
Land Use	Commercial boardwalk development; high-rise casinos; public beach.
Topography	Flat with no variation in elevation on open water. Pier is elevated approximately 25 ft above water level.
Site Infrastructure	Playground Pier is a four-story indoor shopping mall connected to an adjacent casino by a second-story pedway. Infrastructure at end of the pier includes seating and tower viewers.
Use Patterns	
Type of Activities	Sightseeing; shopping; walking.
Extent of Use	Use inside Playground Pier (the shopping mall) has high use levels. The outdoor viewing platform outside of the mall (the viewpoint) has low usage by residents and visitors.
Duration of Use	Visitors to the end of the pier are typically walking the pier and may stop to take in the view from the viewpoint. Duration of use is typically less than 30 minutes.
Seascape Views	
Ocean View (in degrees)	Approximately 200° view of open ocean from viewpoint.
Contextual Features	From the end of the pier, there are no visual obstructions between the viewpoint and the ocean. All contextual features are related to Atlantic City commercial boardwalk behind the viewpoint on the shoreline.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V14	**Playground Pier**	Ocean	15.21 mi	12:28 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	High
Ocean or Marshland View	Low
Landscape Distinctiveness	Low-Moderate
Natural Patterns	Moderate-High
Development Patterns	High

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Low
Primary Use	Low-Moderate
Value of Public Ocean View	Moderate
Use Level	Low
Visitor Expectations	Moderate-High
Duration of View	Low-Moderate
Viewer Elevation	Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Moderate
Vertical Field of View (apparent height measured at arm's length)	Moderate
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate-High

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Conspicuous

V14. Playground Pier

Playground Pier is a private, mixed-use development that extends close to 900 ft from the boardwalk over the dune and beachfront to the ocean. While the interior of Playground Pier is a private development (consisting of retail shops and event space), the exterior is open to the public and affords an opportunity to walk out over the open ocean. The viewpoint is at the southerly end of the pier, which offers >180° views of the ocean, the beachfront, the dunes, the commercial development that parallels the boardwalk, and the Atlantic City skyline. While the viewpoint offers unobstructed views out to the water, it does not appear to be heavily used for recreational pursuits, rather it appears to be more of a functional component of the pier, defined by service drives and minimalist pedestrian amenities. The viewpoint is representative of views from the open ocean (elevated above the water), where there are no obstructions between the observer and Project components.

From this location the turbines and offshore substations would be seen over a HFOV of approximately 41°. While curvature of the earth would reduce the apparent size of the turbines furthest from this viewpoint (approximately 25 miles), the hubs and blades from all the turbines would be visible under optimum weather conditions. The apparent height of the closest turbines (the very tops of the hubs and blades) would be slightly more than 1/4 inch, measured at arm's length. Under the hazy atmospheric conditions presented in the visualization, the turbines appear as somewhat silhouetted against the lighter sky. The Project would introduce a conspicuous visual element to the seascape that would be seen in context of the Atlantic City waterfront.

V15. City Hall in Ventnor City

BASELINE REPORT

Viewpoint Location	
Field ID #	220
Municipality, County	Ventnor City, Atlantic County
Location	Viewpoint is located at the entrance to City Hall on the corner of South Cambridge Avenue and Atlantic Avenue.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Island Community
Scenic Resources	Visualization is from Ventnor City Hall (listed on NRHP). Visualization is near Tofani House (Listed on NRHP) and St. Leonard's Tract Historic District (eligible for NRHP).
Visual Character	
Vegetation	Manicured lawn and ornamental plantings.
Land Use	Primarily single-family residential development, interwoven with mid-rise residential, village commercial, and municipal development.
Topography	Flat with no variation in elevation.
Site Infrastructure	Roadway and sidewalk infrastructure; streetlights; utility poles; trash receptacle; post box; flag pole; bike racks; street trees.
Use Patterns	
Type of Activities	Municipal use at City Hall; walking; biking; daily village activities.
Extent of Use	Moderate usage by residents and visitors.
Duration of Use	Most visitors may only be at the viewpoint for a few seconds as they go about their business at City Hall. Depending on the purpose of their visit, visitors may spend up to 30 minutes at the viewpoint.
Seascape Views	
Ocean View (in degrees)	The view to the ocean down South Cambridge Avenue is constrained by residential structures, fencing, street trees, and roadside signage.
Contextual Features	Village development occupies the view.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V15	**City Hall in Ventnor City**	Island Community (shoreline)	15.80 mi	3:55 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	High
Ocean or Marshland View	High
Landscape Distinctiveness	Moderate
Natural Patterns	High
Development Patterns	Low

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	High
Primary Use	Moderate
Value of Public Ocean View	Low-Moderate
Use Level	Moderate
Visitor Expectations	Moderate
Duration of View	Low-Moderate
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Moderate
Vertical Field of View (apparent height measured at arm's length)	Moderate
Visual obstructions between the viewpoint and the Project	Low
Horizontal Field of View	Low

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

V15. City Hall in Ventnor City

The view from the north entrance to Ventnor City Hall is characteristic of the periodic views of the Project that may be found throughout the Island Community LSZ, especially on those streets that are closest to the ocean. While City Hall is on the National Register, it is also very much part of the St. Leonard's Tract Historic District, which is eligible for listing on the NRHP. The immediate setting is characteristic of Ventnor City, i.e., single family homes oriented to the street grid, with occasional views down the streets to the water. Dunes at the end of the streets are commonly found in the island community neighborhoods, providing a measure of protection from storm surges while blocking views of the ocean from street level. Abundant street trees, planted to provide summer shade and add scale to the community, also screen views to the ocean and the Project, especially during the summer months when more people are in residence in the City.

As illustrated in the visualization, approximately up to 9 turbines would be faintly visible from this viewpoint on City Hall at a distance of 15.8 miles over a HFOV of approximately 1°. While the turbines are as close to the shoreline here as they are anywhere within the Study Area, the Project would have a minimal effect on those portions of the island community located away from the beach. While the onshore weather in the visualization appears clear and sunny, a bank of offshore haze reduces the color contrast of the turbines and renders them almost invisible. Under different atmospheric and lighting conditions, the turbines may be considerably more noticeable if they contrast with a blue sky. The City Hall location is elevated above the street, affording a view over the shorefront dunes. From lower elevations on the street, the turbines would be less visible due to the screening effect of dunes, dunegrass, street trees, and shade structures that are typically found at the end of the local streets. Homes and other buildings lining streets that are perpendicular to the ocean limit the horizontal field of view that contains Project elements.

V16. Lucy the Elephant National Historic Landmark

BASELINE REPORT

Viewpoint Location	
Field ID #	154
Municipality, County	Margate City, Atlantic City
Location	Viewpoint is from the howdah (carriage) at the top of Lucy the Elephant, located at the corner of Atlantic Avenue and South Decatur Avenue.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Island Community
Scenic Resources	Viewpoint from Lucy the Elephant (NHL) located in Lucy Park Conservation Area (known as Josephine Harron Park). Viewpoint is near public beach conservation areas.
Visual Character	
Vegetation	Dunegrass and ornamental plantings.
Land Use	Multi-family residential (high-rise, mid-rise, and low-rise); commercial development (primarily restaurant establishments), and tourist attractions.
Topography	Slight variation in elevation in the low-lying dunes.
Site Infrastructure	Lucy the Elephant and associated tourist infrastructure; concessions building; benches; picnic tables; planting; metal fencing; lighting; utility poles; parking areas; adjacent commercial and multi-family residential structures.
Use Patterns	
Type of Activities	Tourist activities; sightseeing; outdoor eating; beach recreation.
Extent of Use	High usage by residents and visitors. Lucy the Elephant receives approximately 130,000 visitors a year.[9] Approximately 43,200 beach badges were sold for Margate City in 2018 (beach badge information from municipality). Lucy the Elephant is open all year long,
Duration of Use	Time spent at Lucy the Elephant ranges from a few minutes to a few hours, depending on purpose of visit. Viewers may be at the top of Lucy the Elephant for up to 30 minutes. Tours of Lucy occur every 30 minutes.
Seascape Views	
Ocean View (in degrees)	Ocean views from the viewpoint are approximately 140°. A three-story building on the southside of Lucy the Elephant restrict views to the immediate beachfront, but the larger ocean view is visible over the roofline. A 19-story building northeast of Lucy fully restricts views of the ocean to the north.
Contextual Features	There is a 360° view from the top of Lucy the Elephant. To the north, the shoreline and much of the Atlantic City Skyline is blocked from view. To the west, there are views over Margate City and the inner bay. The Margate water tower stands above the village development and is painted with an image of Lucy the Elephant. To the south, high-rise buildings partially block view of the shoreline toward Ocean City.

[9] "Elephants Never Forget — And At 6 Stories Tall, This One's Unforgettable" by Emma Jacobs: https://www.wnyc.org/story/elephants-never-forget-and-at-6-stories-tall-this-ones-unforgettable/

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V16	**Lucy the Elephant National Historic Landmark**	Island Community (shoreline)	16.01 mi	12:50 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	Moderate-High
Ocean or Marshland View	Moderate
Landscape Distinctiveness	Moderate
Natural Patterns	High
Development Patterns	Moderate-High

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	High
Primary Use	Moderate-High
Value of Public Ocean View	Moderate-High
Use Level	High
Visitor Expectations	Low-Moderate
Duration of View	Low-Moderate
Viewer Elevation	Moderate-High

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low-Moderate
Vertical Field of View (apparent height measured at arm's length)	Moderate
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate-High

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Conspicuous

V16. Lucy The Elephant National Historic Landmark

Lucy the Margate Elephant is a National Historic Landmark, listed on the National Register of Historic Places. Lucy is one of the most unique scenic resources within the Study Area, a surviving example of zoomorphic architecture designed to attract people to southern New Jersey. The howdah (the viewing platform atop top Lucy) affords visitors an elevated view (55 ft elevation) out to the ocean. While the view to the Project is unobstructed, an 18-story residential building to the northeast limits views of the ocean to approximately 140°. A smaller (3-story) residential building extends out over the beach due south of Lucy, but does not interfere with ocean views. The community surrounding Lucy is characteristic of the Island Community LSZ, i.e., primarily single-family homes on the inland side of Atlantic Avenue and a large number of multi-story residential and mixed-use buildings on the water side. Views to the ocean from the Island Community are typically limited by the dense development pattern and the presence of relatively low, largely unvegetated dunes that runs the length of the shoreline in Margate.

The entire Project would be visible from the howdah on top of Lucy. The turbines would occupy a HFOV of 39°, or approximately 28% of the 140° ocean view. The apparent height of the closest turbines would be approximately 1/4 inch, measured at arm's length. While curvature of the earth would reduce the apparent size of the turbines furthest from this viewpoint (approximately 25 miles), the hubs and blades from all turbines and the three offshore substations would be visible under optimum weather conditions. Under cloudy or hazy conditions (as represented in the visualization), the Project would have reduced visibility. The brightness of the turbines in the visualization has been increased to show how the Project would appear with lesser amounts of haze.

The Project would introduce a new visual element to the seascape and be conspicuous to the average viewer. The Project would be seen in context of a view that includes moderate to high density housing, an extensive road network, a water tower embellished with an image of Lucy the Elephant, and the high-rise hotels and casinos of Atlantic City. The elevated viewpoint could provide visitors with the opportunity for a much different view of the entire Project.

V17. Municipal Beach Park in Bay Front Historic District

BASELINE REPORT

Viewpoint Location	
Field ID #	92
Municipality, County	Somers Point, Atlantic County
Location	Viewpoint is from beachfront at Municipal Beach Park.
Physiographic Area	Marsh + Bay
Landscape Similarity Zone (LSZ)	Bay
Scenic Resources	Viewpoint from Municipal Beach Park; Bay Front Historic District (listed on NRHP); and Shore Road Historic District (identified historic property - no official NRHP eligibility determination).
Visual Character	
Vegetation	No vegetation on beach. Street trees and ornamental plantings are present on the streetscapes around the beach.
Land Use	Single-family residential; village commercial; waterfront marina development; public park space.
Topography	Flat topography with no variation in elevation.
Site Infrastructure	Parking area; covered pavilion/stage; benches; fishing pier; playgrounds; lifeguard chair; streetscape infrastructure; overhead utility poles.
Use Patterns	
Type of Activities	Beach recreation; live music/events; fishing; playground use; shopping; boat access.
Extent of Use	Moderate usage by residents and visitors. The parking lot area holds 20-30 cars.
Duration of Use	Time spent at the Municipal Beach Park varies from a few minutes to a few hours, depending on the activity.
Seascape Views	
Ocean View (in degrees)	There is a 20° view of the open ocean partially screened by the Route 656 (Ocean Drive) bridge between Ocean City and Longport.
Contextual Features	Municipal Beach Park is located on Great Egg Harbor Inlet, with views of marshland, open bay water, barrier island development in Ocean City and Longport. The Stainton Memorial Causeway connecting Somers Point to Ocean City is visible directly to the South.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V17	**Municipal Beach Park in Bay Front Historic District**	Bay Shoreline (marsh + bay)	18.33 mi	10:50 AM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Moderate
Visible Topography	High
Ocean or Marshland View	Moderate
Landscape Distinctiveness	Low-Moderate
Natural Patterns	Moderate
Development Patterns	Low-Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	High
Primary Use	High
Value of Public Ocean View	Low
Use Level	Moderate
Visitor Expectations	Moderate
Duration of View	Moderate-High
Viewer Elevation	Low

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Moderate
Vertical Field of View (apparent height measured at arm's length)	Low-Moderate
Visual obstructions between the viewpoint and the Project	Moderate
Horizontal Field of View	Moderate-High

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

V17. Municipal Beach Park in Bay Front Historic District

The historic neighborhood of Bay Front in Somers Point is a historic collection of small-scale homes, hotels, and commercial buildings that look out to Great Egg Harbor Bay (bay/shoreline LSZ). The visualization is from Municipal Beach Park that features a sand beach, a pier extending out into the bay, and benches in a landscaped promenade. The view from the park looks out over the bay toward Ocean Drive Bridge connecting Ocean City and Longport. The only view of the ocean is under the bridge.

Even though the Project would be approximately 18 miles from Bay Front, most of the turbines would be screened by the bridge and the topography, tree masses, and development on the barrier islands. While the theoretical HFOV is 31°, only a limited portion of the Project would be visible from this viewpoint. Where they would be seen, the hubs and blades would be faintly visible. The view of the Project would be inconsequential in the context of the activity in the foreground and midground, and the more distant structures on the horizon. Under brighter viewing conditions with full sun, the turbines, as well as the bridge and other structures, would have a somewhat greater visual presence.

V18. Ocean City Boardwalk

BASELINE REPORT

Viewpoint Location	
Field ID #	317
Municipality, County	Ocean City, Cape May County
Location	Viewpoint is from the Boardwalk at the end of 5th Street.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Boardwalk
Scenic Resources	Viewpoint from public beach conservation area. Viewpoint near Ocean City Residential Historic District (listed on NRHP), Ocean City NJ Life- Saving Station (listed on NRHP), Ocean City Music Pier (eligible for NRHP); and Veterans Memorial Park.
Visual Character	
Vegetation	Dunegrass.
Land Use	Public beach; commercial boardwalk development; amusement rides; single-family and multi-family residential; high school and athletic fields.
Topography	Slight variation in elevation in the low-lying dunes.
Site Infrastructure	Wooden boardwalk; tower viewers; ADA access ramps to boardwalk; pedestrian lighting; trash receptacles; parking lot.
Use Patterns	
Type of Activities	Sightseeing; beach recreation; walking; biking; sitting along boardwalk.
Extent of Use	High usage by residents and visitors. In 2018, approximately 364,000 beach badges were sold (information from municipality).
Duration of Use	Depending on the activity, the length of time spent at this viewpoint varies from a few minutes to a several hours.
Seascape Views	
Ocean View (in degrees)	180° view of open ocean from this location.
Contextual Features	The boardwalk widens at the viewpoint to over 100 ft in width. This forms a terminus of the commercial boardwalk as it narrows and takes on a residential character to the north. From the boardwalk, there are no visual obstructions between the viewpoint and the ocean. The Atlantic City skyline is visible to the north. The Ocean City Music Pier (located 0.3 mi from viewpoint) blocks views of the shoreline to the south.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V18	**Ocean City Boardwalk**	Boardwalk (shoreline)	15.54 mi	7:18 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Moderate-High
Visible Topography	Moderate-High
Ocean or Marshland View	Low-Moderate
Landscape Distinctiveness	Moderate
Natural Patterns	Moderate
Development Patterns	Moderate-High

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate
Primary Use	Moderate-High
Value of Public Ocean View	Moderate-High
Use Level	High
Visitor Expectations	Low-Moderate
Duration of View	Moderate
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Moderate
Vertical Field of View (apparent height measured at arm's length)	Moderate
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate-High

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Conspicuous

V18. Ocean City Boardwalk

The viewpoint is characteristic of the views from the Ocean City Boardwalk (and the Boardwalk LSZ), which extends for 2.5 miles along the oceanfront in one of the larger communities in southern NJ. Like most of the communities within the oceanfront study area, Ocean City is located on a barrier island (Peck's Beach), accessed by bridge from the mainland. Views from and along the boardwalk include crashing surf, amusement parks, restaurants and tourist shops, and seaside residential neighborhoods. The beach and the boardwalk receive heavy public use throughout the summer when vacationers are drawn to the Jersey Shore. Visitors to the beach are exposed to a continuous assortment of offshore activity, including parasails, tour boats, advertising boats and planes.

From this location the Project would be seen over a HFOV of approximately 36°. While curvature of the earth would reduce the apparent size of the turbines furthest from this viewpoint (approximately 25 miles), the hubs and blades of all the turbines plus the three offshore substations would be visible under optimum weather conditions (as seen in the visualization). Under these atmospheric conditions, their light color and reflected sunlight would make them a conspicuous part of the seascape. The apparent height of the closest turbines (from the water line to the top of the blades) would be approximately 1/4 inch, measured at arm's length. The Project would introduce a new visual element to the seascape that would be seen in context of the commercial and recreational activity that is characteristic of the Ocean City waterfront.

V19. Corson's Inlet State Park

BASELINE REPORT

Viewpoint Location	
Field ID #	140
Municipality, County	Ocean City, Cape May County
Location	Viewpoint is from beachfront at Corson's Inlet State Park near the head of Ocean Trail (approximately 0.4 miles south of the end of Central Avenue).
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Beachfront
Scenic Resources	Viewpoint from Corson's Inlet State Park. Viewpoint near Cape May Coastal Wetlands Wildlife Management Area.
Visual Character	
Vegetation	Dune vegetation.
Land Use	Conservation area; public beach; residential development (north of State Park).
Topography	Slight variation in elevation in low-lying dunes.
Site Infrastructure	Trail marker is only site infrastructure at viewpoint.
Use Patterns	
Type of Activities	Beach recreation; wildlife observation; hiking. [10]
Extent of Use	Low-moderate usage by residents and visitors. The majority of beach use is located further north at the entry to the State Park near Central Avenue parking.
Duration of Use	The length of time spent at Corson's Inlet State Park varies based on activity. Visitors stopping at viewpoint on beach may be there for 2-4 hours.
Seascape Views	
Ocean View (in degrees)	180° view of open ocean from this location.
Contextual Features	There are no visual obstructions between the viewpoint and the ocean. Corson's Inlet State Park is a natural area with minimal infrastructure. Residential development, Route 619 (Bay Avenue) bridge, and water tower is visible to the south in Upper at a distance of approximately 1 mi. Ocean City residential development is visible to the north at distance of approximately 0.4 mi.

[10] NJ Department of Environmental Protection website: https://www.state.nj.us/dep/parksandforests/parks/corsons.html

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V19	**Corson's Inlet State Park**	Beachfront (shoreline)	16.22 mi	4:55 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	Moderate-High
Ocean or Marshland View	Low-Moderate
Landscape Distinctiveness	Low-Moderate
Natural Patterns	Low-Moderate
Development Patterns	Low-Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate-High
Primary Use	Moderate-High
Value of Public Ocean View	High
Use Level	Low-Moderate
Visitor Expectations	Moderate-High
Duration of View	Moderate-High
Viewer Elevation	Low

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Moderate
Vertical Field of View (apparent height measured at arm's length)	Moderate
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate-High

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Conspicuous

V19. Corson's Inlet State Park

The view from the beach at Corson's Inlet State Park is representative of the Beachfront LSZ. While most of the beachfront in southern New Jersey is heavily developed, the State Park is an example of what the coastline used to look like a century ago. The State Park is located at the southern end of an 8-mi long barrier island known as Peck's Beach. The Park was established in 1969 to preserve one the last undeveloped tract of shorefront along the southern New Jersey coastline. The majority of beach use occurs at the north end, where the Park meets the southern terminus of Ocean City's residential neighborhoods. The southern end of the Park is relatively wild; the only infrastructure is a rudimentary trail system that leads through the dunes to a parking lot and boat launch at Corson's Inlet adjacent to Route 619 (Bay Avenue). The Park is a popular destination for hiking, fishing, crabbing, bird watching, boating, and sunbathing.

From the beach the closest turbine would be located over 16 miles due east and would be seen over a HFOV of 34°, where the Project would occupy approximately 19% of the 180° view of the ocean. At that distance under clear weather conditions (as seen in the visualization), the turbine towers and blades would be conspicuous to the average viewer, especially when the blades are moving. The apparent height of the closest turbines (from the water line to the top of the blades) would be approximately 1/4 inch, measured at arm's length. In cloudy or hazy conditions, the Project would be considerably less visible as the light-colored turbines and blades would blend in with the background sky.

V20. Sea Isle City Promenade

BASELINE REPORT

Viewpoint Location	
Field ID #	118
Municipality, County	Sea Isle City, Cape May County
Location	Viewpoint located on Sea Isle City Promenade at the end of John F. Kennedy Boulevard.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Boardwalk
Scenic Resources	Viewpoint from Sea Isle City Promenade. Viewpoint near Excursion Park and Memorial Park.
Visual Character	
Vegetation	Dunegrass; ornamental planting; lawn at adjacent Excursion Park.
Land Use	Public beach; public park; commercial; mid-rise residential; mixed-use.
Topography	Some elevation variation due to dune topography. The dunes are at a higher elevation than the boardwalk.
Site Infrastructure	Streetscape infrastructure; hardscape pavers; asphalt promenade; seating; covered gazebo; pergola structures; informational signage; trash receptacles; lawn; performance stage.
Use Patterns	
Type of Activities	Shopping; sightseeing; walking; biking; sitting; beach recreation; concert/events; outdoor dining.
Extent of Use	High usage by residents and visitors. In 2018, approximately 98,000 beach badges were sold in Sea Isle City (beach badge information from received from municipality). On a typical summer weekend, 50,000 to 60,000 visitors may visit Sea Isle City. During peak summer holiday weekends, the number of tourists reaches 65,000 to 75,000 people.[11]
Duration of Use	Visitors to viewpoint may spend 30 minutes to 2 hours, depending on the purpose of the visit.
Seascape Views	
Ocean View (in degrees)	The dune topography east of the promenade blocks views of the beach and ocean. The 180° view is of the dune landscape.
Contextual Features	John F. Kennedy Boulevard is the primary entry from the mainland and main commercial corridor in Sea Isle City. The intersection of this corridor and the Sea Isle City Promenade is an important public space with a variety of opportunities for community events and recreation.

[11] Wittkowski, Donald. "Sea Isle Looks to Grab Tourists' Attention With New Commercial." Sea Isle News.com, Sea Isle News, 17 Mar. 2017: https://seaislenews.com/sea-isle-looks-to-grab-tourists-attention-with-new-commercial/ Accessed December 6, 2018.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V20	**Sea Isle City Promenade**	Boardwalk (shoreline)	17.36 mi	1:50 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	Moderate
Ocean or Marshland View	High
Landscape Distinctiveness	Low-Moderate
Natural Patterns	Moderate-High
Development Patterns	Low-Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate
Primary Use	Moderate
Value of Public Ocean View	Low
Use Level	High
Visitor Expectations	Low-Moderate
Duration of View	Moderate
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Moderate
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Low-Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

V20. Sea Isle City Promenade

The visualization is from the Sea Isle City Promenade, a distinctive paved walkway system that parallels the ocean for 1.5 miles on the inland side of the dune system in Sea Isle City. Sea Isle City, along with the unincorporated community of Strathmere, is located on Ludlam Island, one of the barrier islands that characterize the southern New Jersey Shoreline. The center of the City is highly developed, with a mixture of restaurants, shops, landscaped streets, recreation facilities, a bandstand, and the Promenade.

At this location in the downtown area at the head of John F. Kennedy Boulevard, the dunes and pedestrian amenities serve as the visual terminus to the streetscape. The limited Project view is characteristic of the effect that the dunes would have on visibility from residential streets in the neighborhoods leading to the beach. Where there are no gaps in the dunes for access, a person at street level would only see the tops of some of the blades, depending upon their orientation and height relative to the top of the dune. In other parts of the Promenade where the dunes were lower and/or the walkway was at a higher elevation, Project visibility would be similar to – but slightly more distant than – views from Ocean City. In situations where the promenade affords a view out to the ocean, the Project would be visible over a HFOV of 19°, or approximately 11% of the 180° view.

V21. Jetty at North End of Avalon Beach

BASELINE REPORT

Viewpoint Location	
Field ID #	25
Municipality, County	Avalon, Cape May County
Location	The viewpoint is on the rock jetty at the north end of the public beach in Avalon.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Jetty/Seawall
Scenic Resources	Viewpoint near Avalon Recreation Field conservation land, Avalon Life Saving Station (listed on NRHP), and 254 6th Street (eligible for NRHP).
Visual Character	
Vegetation	Dunegrass is located on dune at the start of the jetty. No vegetation on the Jetty.
Land Use	Public beach; single-family residential.
Topography	Slight variation in elevation in low-lying dunes.
Site Infrastructure	Jetty is made of rocks held together with concrete. Infrastructure at entry to jetty includes wood access ramps; trash receptacles; signage; concrete barriers.
Use Patterns	
Type of Activities	Fishing; walking; beach recreation on adjacent beach; running on beach; boating in adjacent channel.
Extent of Use	Moderate-high usage by residents and visitors. In 2018, approximately 69,000 beach badges were sold in Avalon (beach badge information from received from municipality).
Duration of Use	Visitors to viewpoint my spend as little as a few minutes (walking) to two hours (fishing), depending on the activity.
Seascape Views	
Ocean View (in degrees)	200° view of open ocean from this location.
Contextual Features	There are no visual obstructions between the viewpoint and the ocean. The Avalon shoreline is visible to the south and the Sea Isle City shoreline is visible to the north. There channel between the two barrier islands received heavy recreational boat traffic entering and leaving the open ocean.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V21	**Jetty at North End of Avalon Beach**	Jetty/Seawall (shoreline)	17.84 mi	10:14 AM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Low-Moderate
Visible Topography	Moderate-High
Ocean or Marshland View	Low
Landscape Distinctiveness	Low-Moderate
Natural Patterns	Moderate-High
Development Patterns	Low-Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate
Primary Use	High
Value of Public Ocean View	High
Use Level	Moderate-High
Visitor Expectations	Low-Moderate
Duration of View	Moderate
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Moderate
Vertical Field of View (apparent height measured at arm's length)	Low-Moderate
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate-High

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Apparent

V21. Jetty at North End of Avalon Beach

The view from the jetty at the north end of Avalon Beach is representative of the Jetty/Seawall LSZ, where man-made structures have been installed to protect beaches or define navigational channels. The jetty provides people the opportunity to fish in deeper waters and to experience the ocean from a much different perspective than the beach, being farther out into the water and proximate to the boating traffic that is characteristic of the inlets between the barrier islands.

From the jetty the closest turbine would be located approximately 18 miles due east and would be seen over a HFOV of 29°, where the Project would occupy less than 15% of the panoramic 200° view of the ocean. At that distance under clear weather conditions (as seen in the visualization), the turbine towers and blades would be apparent to the average viewer, especially when the blades are moving. In cloudy or hazy conditions, the Project would be less visible as the light-colored turbines and blades would blend in with the background sky. The apparent height of the closest turbines (from the water line to the top of the blades) would be slightly less 1/4 inch, measured at arm's length. The view from the jetty is relatively complex, with the beach, dunes, and ocean front properties in Avalon in the foreground and the residential development in Sea Isle City on Ludlam Island clearly visible to the north in the midground. When visible, the turbines would be apparent and seen as part of the far background seascape.

V22. Stone Harbor Beach Access (Day)

BASELINE REPORT

Viewpoint Location	
Field ID #	59
Municipality, County	Stone Harbor, Cape May County
Location	Viewpoint from the access ramp to the Stone Harbor beachfront, located at 95th Street adjacent to the Beach Patrol Building and municipal parking lot.
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 Historic District (identified historic district - no official NRHP eligibility determination).
Visual Character	
Vegetation	Dunegrass.
Land Use	Single-family and multi-family residential; public parks; public beach.
Topography	Some elevation variation in surrounding landscape.
Site Infrastructure	Parking area; Beach Patrol office; beach access ramp; beach shacks.
Use Patterns	
Type of Activities	Beach recreation; swimming; fishing, walking.
Extent of Use	The neighboring community in Avalon's beach badge total for 2018 was approximately 69,000 (information from municipality). Avalon beach badges are honored in Stone Harbor.
Duration of Use	Beach recreation activities vary in duration of use. Primary use during daylight hours. A few minutes to a few hours are spent at this location.
Seascape Views	
Ocean View (in degrees)	180° view of open ocean from this location.
Contextual Features	There are no visual obstructions between the viewpoint and the ocean. Residential development borders the beach.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V22	**Stone Harbor Beach Access (Day)**	Shoreline (Beachfront)	20.93 mi	4:22 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	Moderate-High
Ocean or Marshland View	Low-Moderate
Landscape Distinctiveness	Moderate
Natural Patterns	Moderate
Development Patterns	Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate
Primary Use	High
Value of Public Ocean View	High
Use Level	High
Visitor Expectations	Moderate
Duration of View	High
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low-Moderate
Vertical Field of View (apparent height measured at arm's length)	Low-moderate
Visual obstructions between the viewpoint and the Project	Low
Horizontal Field of View	Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Apparent

V22. Stone Harbor Beach Access (Day)

The view from the beach at Stone Harbor is representative of the Beachfront LSZ in southern New Jersey, with relatively heavy summertime recreational use of a wide sand beach, approximately 300 ft in width, backed by a vegetated dune system approximately 125 ft in width. The viewpoint is connected to a public parking area and Beach Patrol station, and thus may have greater use than other parts of the beach where access is through residential side streets. Stone Harbor is part of Seven Mile Island, a barrier island that also includes the borough of Avalon. The majority of the island is developed, with the exception of the southern tip.

From the beach the closest turbine would be located approximately 21 miles east-northeast and would be seen over a HFOV of 25°. The turbines would be seen over approximately 14% of the 180° view of the ocean. The apparent height of the closest turbines (from the water line to the top of the blades) would be slightly less 1/8 inch, measured at arm's length. The offshore substations would not be visible due to the curvature of the earth. Under clear weather conditions (as seen in the visualization), the turbine towers and blades would be apparent to the average viewer, especially when the blades are moving. In cloudy or hazy conditions, the Project would be considerably less visible as the light-colored turbines and blades would blend in with the background sky.

V23. Stone Harbor Beach Access (Night)

BASELINE REPORT

Viewpoint Location	
Field ID #	77
Municipality, County	Stone Harbor, Cape May County
Location	Viewpoint from the access ramp to the Stone Harbor beachfront, located at 95th Street adjacent to the Beach Patrol Building and municipal parking lot.
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 Historic District (identified historic district - no official NRHP eligibility determination).
Visual Character	
Vegetation	Dunegrass.
Land Use	Single-family and multi-family residential; public parks; public beach.
Topography	Some elevation variation in surrounding landscape.
Site Infrastructure	Parking area; Beach Patrol office; beach access ramp; beach shacks.
Use Patterns	
Type of Activities	Evening/night activities may include beach strolling and dog walking.
Extent of Use	Minimal use of the beach at night.
Duration of Use	Beach recreation activities vary in duration of use. Primary use during daylight hours. A few minutes to a few hours are spent at this location.
Seascape Views	
Ocean View (in degrees)	180° view of open ocean from this location.
Contextual Features	There are no visual obstructions between the viewpoint and the ocean. Residential development borders the beach.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V23	**Stone Harbor Beach Access (Night)**	Shoreline (Beachfront)	20.93mi	8:49 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	Moderate-High
Ocean or Marshland View	Low-Moderate
Landscape Distinctiveness	Moderate
Natural Patterns	Moderate
Development Patterns	Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate
Primary Use	High
Value of Public Ocean View	High
Use Level	Low
Visitor Expectations	High
Duration of View	Moderate
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low-Moderate
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	Low
Horizontal Field of View	Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

V22. Stone Harbor Beach Access (Night)

Beach hours at Stone Harbor are from 10 AM to 5 PM, when beach tags are required and lifeguards are on duty. Dogs are allowed on the beach during summer months until 9PM. Other than those restrictions, there is no indication regarding use of the beach after sunset. Based upon field observation, nighttime use is expected to be limited. People who may use the beach at night would expect to encounter relatively dark skies, especially close to the edge of the water and away from the streetlights that are found at the end of most of the residential streets that terminate at the beach.

To people walking the beach and looking out to the ocean, the FAA warning lights on the turbine hubs and mid-tower locations would be faintly visible at distances of 21 to 35 mi, especially if they were standing in a place that is not affected by lights from the streetlights and their eyes grew accustomed to the relative darkness. The visualization provides a worst-case view of the Project, i.e., when the lights would be lit and pulsing in unison. By using an aircraft detection lighting system (ADLS), the lights would remain off under most conditions and the Project would not be visible after sunset.

V24. North Wildwood Boulevard Bridge

BASELINE REPORT

Viewpoint Location	
Field ID #	6
Municipality, County	Middle Twp, Cape May County
Location	Viewpoint is from eastbound lane on Route 147 (North Wildwood Boulevard). Bridge over the bay connects mainland to North Wildwood.
Physiographic Area	Marsh + Bay
Landscape Similarity Zone (LSZ)	Bridge
Scenic Resources	Viewpoint near Grassy Sound Historic District (eligible for NRHP); and Cape May Coastal Wetlands Wildlife Management Area.
Visual Character	
Vegetation	No vegetation on bridge. Marsh vegetation below bridge.
Land Use	Transportation corridor; conservation land; commercial waterfront development; single-family residential development.
Topography	Some elevation variation in surrounding landscape. The bridge is located approximately 60 ft above water level.
Site Infrastructure	Roadway and bridge infrastructure.
Use Patterns	
Type of Activities	Driving (entering North Wildwood and Stone Harbor).
Extent of Use	High usage by residents and visitors.
Duration of Use	Viewers are typically at the viewpoint for a few seconds, as motorists catch a brief glimpse as they pass over the bridge.
Seascape Views	
Ocean View (in degrees)	View of the open ocean is approximately 70° from the highest elevation of the bridge. This ocean view is partially screened by development in North Wildwood and Stone Harbor.
Contextual Features	There is a 360° view from the top of the bridge. Views include development on the barrier islands (water towers, mid-rise development, amusement rides). Views also include marshland and waterways in the inner bay.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V24	**North Wildwood Boulevard Bridge**	Bridge (marsh+ bay)	24.29 mi	1:54 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Low
Visible Topography	Moderate
Ocean or Marshland View	Low
Landscape Distinctiveness	Low-Moderate
Natural Patterns	Low-Moderate
Development Patterns	Low-Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate-High
Primary Use	Low-Moderate
Value of Public Ocean View	Moderate-High
Use Level	High
Visitor Expectations	Low
Duration of View	Low
Viewer Elevation	Moderate-High

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low-Moderate
Vertical Field of View (apparent height measured at arm's length)	Low-Moderate
Visual obstructions between the viewpoint and the Project	Moderate-High
Horizontal Field of View	Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Apparent

V24. North Wildwood Boulevard Bridge

State Route 147 (North Wildwood Boulevard) Bridge over Grassy Sound is a major accessway from the mainland to the community of North Wildwood. The viewpoint is somewhat unique (although characteristic of the Bridge LSZ) in that it offers eastbound motorists a brief elevated (67 ft elevation) view of the beaches and marshlands of Cape May Coastal Wetlands WMA, the extensive development along the barrier islands, and the Atlantic Ocean. Motorists also pass over the Grassy Sound Historic District. The ocean is viewed over a 1.6 mi section of undeveloped beach that is framed on the north by the residential development at Stone Harbor and on the south by a prominent group of mid-rise residential buildings in North Wildwood.

The Project would be seen over a HFOV of 22° to the east-northeast, at a distance of just over 24 miles to the closest turbine. At this distance, under optimal weather conditions, the turbines would appear as an irregular grouping of thin vertical lines, set against the strong horizontal shoreline. Under cloudy or hazy conditions, the turbines would be difficult to differentiate against the background sky. The Project would not appear directly in front of the motorist; rather it would appear between 30° and 52° north of a motorist's line of sight, which means that they would have to turn their head to the left to see the turbines. The apparent height of the visible portion of the closest turbines would be just over 1/8th inch, measured at arm's length. At a distance of 24 miles, the Project would be apparent and the movement of the blades may be somewhat noticeable during optimal weather conditions.

V25. Hereford Inlet Lighthouse

BASELINE REPORT

Viewpoint Location	
Field ID #	17
Municipality, County	North Wildwood, Cape May County
Location	Viewpoint is at the highest publicly accessible point inside the Hereford Inlet Lighthouse.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Island Community
Scenic Resources	Viewpoint from Hereford Lighthouse (listed on NRHP). Viewpoint near North Wildwood Life Saving Station (eligible for NRHP) and Hereford Inlet Fishing Pier Conservation Land.
Visual Character	
Vegetation	Ornamental plantings in a well maintained and highly manicured Victorian garden surround the lighthouse. Coniferous trees and dune vegetation are visible from the top of the lighthouse toward beach.
Land Use	Single-family and low-rise multi-family residential development.
Topography	Slight variation in elevation in low-lying dune topography.
Site Infrastructure	Parking lot; wood fencing; wood benches; landscape lighting; gardens; gazebo; bike rack.
Use Patterns	
Type of Activities	Visitation to lighthouse and gardens may include lighthouse tours, sightseeing, education, or photography.
Extent of Use	Moderate usage by residents and visitors. The 2018 Lighthouse Challenge of New Jersey drew approximately 2,000 people to the lighthouse.[12]
Duration of Use	Visitors to the top of the lighthouse are likely to stay for 30± minutes.
Seascape Views	
Ocean View (in degrees)	The open ocean is seen over approximately 120° of the 360º view from the top of lighthouse (view is restricted to individual windows).
Contextual Features	The viewpoint is from inside the light house. The North Wildwood Life Saving Station is visible directly to the north and the manicured gardens are visible directly below. View of the open ocean is framed by development and tree canopy on the east side of the lighthouse.

[12]Friends of Hereford Inlet Lighthouse Summer 2018 News Letter: http://www.herefordlighthouse.org/Final%20Newsletter%20summer%202018.pdf

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V25	**Hereford Inlet Lighthouse**	Island Community (shoreline)	23.61 mi	3:20 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Moderate
Visible Topography	Moderate-High
Ocean or Marshland View	Moderate
Landscape Distinctiveness	Low
Natural Patterns	Moderate-High
Development Patterns	Low-Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	High
Primary Use	High
Value of Public Ocean View	High
Use Level	Moderate
Visitor Expectations	Moderate-High
Duration of View	Low-Moderate
Viewer Elevation	Moderate-High

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low-Moderate
Vertical Field of View (apparent height measured at arm's length)	Low-Moderate
Visual obstructions between the viewpoint and the Project	Moderate-High
Horizontal Field of View	Low-Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Apparent

V25. Hereford Inlet Lighthouse

The Hereford Inlet Lighthouse is located in North Wildwood, one of the four communities that comprise the Wildwoods at the southern end of the study area on Five Mile Beach Island. The Lighthouse, which is still active, is on the National and State Register of Historic Places. The viewpoint is typical of an elevated view from the Island Community LSZ in that it provides a contextual view that includes the ocean, barrier islands, protected marshes, and residential and commercial development that characterize the island communities. In addition to the lighthouse proper, the site includes English style cottage gardens that are part of its attraction.

From the square-sided observation tower (viewer elevation of 46 ft) the closest turbine would be approximately 24 mi to the northeast. Reflections from the opposite windows in the tower prevent getting a clear view of the ocean, as seen in the visualization. Due to the orientation of the tower (NE/NW/SW/SE), the turbines will appear at the edge of the view from NE and SE sides. From the SE windows, shown in the visualization, the HFOV would be approximately 9°. The apparent height of the closest turbines would be just over 1/8 inch, measured at arm's length.

As shown in the visualization, under clear weather conditions the turbine towers and blades would be apparent to the average viewer, especially when the blades are moving. In cloudy or hazy conditions, the Project would be considerably less visible as the light-colored turbines and blades would blend in with the sky in the background. The view from the lighthouse is relatively complex, with the beach, dunes, marshland, and oceanfront residential properties in the foreground viewing distance. When visible, the turbines would be part of the far background seascape.

V26. Wildwood Crest Fishing Pier

BASELINE REPORT

Viewpoint Location	
Field ID #	57
Municipality, County	Wildwood Crest, Cape May County
Location	Viewpoint is from the end of the Wildwood Crest Fishing Pier.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Beachfront
Scenic Resources	Viewpoint is from a pier that extends out over the public beach. Viewpoint is near Wildwoods Shore Resort Historic District (eligible for the NRHP) and the Caribbean Motel (listed on the NRHP).
Visual Character	
Vegetation	Dune vegetation at the base of the pier.
Land Use	Mid-rise hotel development; commercial development; public beach in conservation.
Topography	Flat. No variation in elevation.
Site Infrastructure	Elevated pier structure over beach; pedestrian lighting on pier; signage; trash receptacles; seating.
Use Patterns	
Type of Activities	Beach recreation (on beach around the pier); organized events on the pier such as group fitness; sightseeing; walking. There is no fishing from pier since the water is currently at a significant distance from the end of the pier.
Extent of Use	Although the fishing pier is always open, most use occurs during daytime hours. Depending on the activity, the length of time spent at this location varies from a few minutes to a few hours.
Duration of Use	The year-round population of Wildwood of over 5,300 grows to as many as 250,000 or more during the peak tourist season during the summer.[13] There is free beach admission in all of Wildwood.
Seascape Views	
Ocean View (in degrees)	180° view of open ocean from this location.
Contextual Features	There are no visual obstructions between the viewpoint and the ocean. The developed shoreline is visible to the north and south.

[13] Kocieniewski, David. "And the Sand Won't Burn Your Feet", The New York Times, April 22, 2007. Accessed December 6, 2018.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V26	**Wildwood Crest Fishing Pier**	Shoreline (Beachfront)	25.95 mi	3:49 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	High
Visible Topography	High
Ocean or Marshland View	Low-Moderate
Landscape Distinctiveness	Moderate
Natural Patterns	Moderate
Development Patterns	Moderate-High

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Moderate
Primary Use	High
Value of Public Ocean View	High
Use Level	Moderate
Visitor Expectations	Moderate
Duration of View	Moderate
Viewer Elevation	Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low
Vertical Field of View (apparent height measured at arm's length)	Low-Moderate
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

V26. Wildwood Crest Fishing Pier

The view from the Fishing Pier at Wildwood Crest is representative of the Beachfront LSZ in southern New Jersey, with heavy summertime recreational use of a broad sand beach, approximately 800 ft in width, backed by a vegetated dune system approximately 300 ft in width. Wildwood Crest is in one of the four communities that comprise the Village of Wildwood on Five Mile Beach at the southern end of the Project study area. The pier is owned by the borough of Wildwood Crest and is a popular location for ocean watching, walking, and picnicking. Despite being called a fishing pier, the structure does not currently extend out over the water. The shape and orientation of the beach results in significant amount of sand accretion, which continues to extend the width of the beach.

From the elevated fishing pier, a distance of nearly 26 miles northeast to the Project, the blades and most of the hubs would theoretically be visible over a HFOV of approximately 20°, occupying approximately 11% of the 180° view. The hubs that would be visible would appear just above the horizon. While the turbine blades would theoretically be visible, the average person should not be able to detect them at this distance with an unaided eye due to the relative thinness of the blades and the limits of visual acuity. The apparent height of the visible portion of the closest turbines (the very tops of the hubs and blades) would just over 1/8 inch, measured at arm's length. The project components would be faintly visible from the fishing pier due to the effects of distance, atmospheric perspective, and curvature of the earth. Under cloudy or hazy conditions, the turbines would have minimal contrast with the background and it is likely that the Project may not be visible at all.

V27. Cape May National Wildlife Refuge

BASELINE REPORT

Viewpoint Location	
Field ID #	33
Municipality, County	Lower Twp, Cape May County
Location	Viewpoint is from the sand dune path at the edge of the Cape May National Wildlife Refuge – Two Mile Unit.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Dune
Scenic Resources	Viewpoint from Cape May National Wildlife Refuge and United States Coast Guard Reservation. Viewpoint near United States Coast Guard LORAN-C Support Unit and LSU Wildwood (listed on NRHP).
Visual Character	
Vegetation	Mature dune vegetation (dunegrass; woody shrubs; trees).
Land Use	Conservation land.
Topography	Some elevation variation includes medium sized dunes.
Site Infrastructure	Viewpoint infrastructure includes sand pathway with wooden/rope pathway markers; informational signage; viewing platform with seating. Entry to NWR off USCG Entrance Street includes visitor information center; parking lot, informational signage, bike racks, portable restroom.
Use Patterns	
Type of Activities	Waking, bird watching, photography, nature study occur along the dune pathways of the NWR. Access to the NWR beachfront is prohibited April 1 to September 30. Beach access in the vicinity of the viewpoint is limited to areas outside of the NWR.
Extent of Use	Moderate usage by residents and visitors. Beachfront use is located outside of NWR boundary.
Duration of Use	The refuge is open daily from dawn to dusk. Depending on the activity, the length of time spent at this location varies from a few minutes to a few hours.
Seascape Views	
Ocean View (in degrees)	180° view of open ocean from this location.
Contextual Features	There are no visual obstructions between the viewpoint and the ocean. Commercial development near the Wildwood shoreline is visible to the north. There is no development visible to the south.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V27	**Cape May National Wildlife Refuge**	Dune (shoreline)	28.45 mi	11:16 AM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Moderate
Visible Topography	Moderate
Ocean or Marshland View	Low-Moderate
Landscape Distinctiveness	Low
Natural Patterns	Low
Development Patterns	Low

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	High
Primary Use	High
Value of Public Ocean View	High
Use Level	Moderate
Visitor Expectations	Moderate-High
Duration of View	Moderate
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	High
Horizontal Field of View	Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

V27. Cape May National Wildlife Refuge

The viewpoint from Cape May National Wildlife Refuge and the United States Coast Guard LORAN-C Support Unit is typical of the views commonly found along the undeveloped portions of the barrier Islands at the southern end of the Study Area. The NWR occupies the southern 20% of Five Mile Beach, which also contains the four municipalities of Wildwood. The NWR does not allow public access north of the visualization viewpoint during the April–September shorebird nesting season. The dune system is broad and well vegetated, with heights of approximately 15 to 20 ft. The viewpoint is at the edge of the dune, approximately 10 ft above the water.

From the viewpoint, the blades would theoretically be visible over a HFOV of approximately 18°, occupying approximately 10% of the 180° view. However, given the 28+ mi distance to the turbines, and the effects of atmospheric perspective, curvature of the earth, and limits of visual acuity, it is doubtful that any of the blades would be visible to the average person with an unaided eye from this viewpoint. Those turbine hubs that may be visible would appear at or just above the horizon. The apparent height of the visible portion of the closest turbines would be slightly greater than 1/16 inch, measured at arm's length. The Project components may be faintly visible under ideal weather conditions; under cloudy or hazy conditions the Project may not be visible at all.

V28. Cape May Lighthouse

BASELINE REPORT

Viewpoint Location	
Field ID #	7
Municipality, County	Lower Twp, Cape May County
Location	Viewpoint is the outdoor viewing platform at the top of the Cape May Lighthouse.
Physiographic Area	Shoreline
Landscape Similarity Zone (LSZ)	Island Community
Scenic Resources	Viewpoint from Cape May Lighthouse (listed on NRHP) in Cape May Point State Park. Viewpoint is near Battery 233 (listed on NRHP) and Sea Grove Historic District (identified historic district - no official NRHP eligibility determination).
Visual Character	
Vegetation	Manicured lawn and tree cover make up immediate grounds at the lighthouse. From the top of the lighthouse, visible vegetation includes mixed deciduous/evergreen tree cover, coastal wetland vegetation, and dune vegetation.
Land Use	State park conservation land; single-family residential; public beach.
Topography	Slight variation in elevation in low-lying dune topography adjacent to lighthouse.
Site Infrastructure	Parking lot; informational signage; oil house museum shop and information center; benches; hardscape pathways; bike racks; restrooms; brick pathways.
Use Patterns	
Type of Activities	Lighthouse climbing; sightseeing; educational programs.
Extent of Use	High usage by residents and visitors.
Duration of Use	Visitors typically spend up to 30 minutes at the top of the lighthouse.
Seascape Views	
Ocean View (in degrees)	360° view from lighthouse viewing platform. 230° view of open ocean.
Contextual Features	Contextual features include the mouth of Delaware Bay; beach shoreline in Cape May Point and Lower Township; downtown Cape May; and the undeveloped conservation land in Cape May Point State Park, Higbee Beach Wildlife Management Area, and Cape May Migratory Bird Refuge. Water towers are visible in the landscape. The most northern visible point on the shoreline is in Wildwood.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V28	**Cape May Lighthouse**	Island Community (shoreline)	33.88 mi	2:03 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Shoreline or Landform	Low
Visible Topography	Moderate-High
Ocean or Marshland View	Low
Landscape Distinctiveness	Low
Natural Patterns	Low-Moderate
Development Patterns	Low-Moderate

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	High
Primary Use	High
Value of Public Ocean View	High
Use Level	High
Visitor Expectations	Low-Moderate
Duration of View	Low-Moderate
Viewer Elevation	High

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to nearest visible turbine	Low
Vertical Field of View (apparent height measured at arm's length)	Low
Visual obstructions between the viewpoint and the Project	Low
Horizontal Field of View	Moderate

SEASCAPE/LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Faint

V28. Cape May Lighthouse

As a prominent elevated structure and focal point in Cape May Point State Park, and on the National Register of Historic Places, Cape May Lighthouse is one of the most significant viewpoints within the Study Area. The unobstructed view seen in the visualization looks east and northeast over a richly patterned landscape that includes freshwater ponds, salt marshes, sand dunes and beaches in the foreground and the densely developed communities at the extreme southern end of the New Jersey shore.

From the top of the lighthouse (viewer elevation of 114 ft) the closest turbine would be nearly 34 mi to the northeast. The Project would theoretically be visible over a HFOV of approximately 16°, occupying less than 5% of the 360° view from the lighthouse. The apparent height of the closest turbines would be approximately 1/16 inch, measured at arm's length. Given the distance to the turbines, the height of the larger structures in the more urbanized coastal areas to the north, the effect of atmospheric perspective, and the limits of visual acuity, it is doubtful that any of the blades would be more than faintly visible from the lighthouse to an average observer. Even with a 4X magnification, as shown on the visualization, the turbines are very difficult to distinguish where they appear between the distant structures in Wildwood and beyond.

V29. Oyster Creek Substation

BASELINE REPORT

Viewpoint Location	
Municipality, County	Ocean Township, Ocean County
Location	Viewpoint is on a footbridge over Oyster Creek on the Barnegat Branch Trail.
Physiographic Area	Mainland
Landscape Similarity Zone (LSZ)	Inland
Scenic Resources	Barnegat Branch Trail, a multi-use trail that runs from Barnegat Township to Toms River.
Visual Character	
Vegetation	Mid-aged pines and shrub-scrub vegetation line Oyster Creek, framing the view toward the substation site
Land Use	The area immediately adjacent to the substation site, and dominating the view from the trail, is occupied by the Oyster Creek Nuclear Generating Facility and associated substation. The nuclear reactor was shut down in 2018.
Topography	Basically a flat site with slight variation in elevation
Site Infrastructure	The footbridge over the creek is enclosed by chain link fencing. The pathway is a combination of stone dust and wooden planks. Split rail fencing parallels the trail to discourage pedestrian access to the creek.
Use Patterns	
Type of Activities	Walking, biking, dog-walking on the pathway.
Extent of Use	The pathway appears to have moderate usage, primarily by local residents.
Duration of Use	Year-round
Context	
Contextual Features	Contextual features visible from the footbridge include structures associated with the generating facility, Route 9 and local distribution lines (opposite direction of view toward substation), highway commercial development, remnant forest preserves.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V29	**Oyster Creek Substation**	Inland	0.5 mi	3:45 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Landform	High
Visible Topography	High
Water View	Moderate
Landscape Distinctiveness	High
Natural Patterns	High
Development Patterns	High

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Low
Primary Use	Low
Value of Water View	Low-Moderate
Use Level	Moderate
Visitor Expectations	Low-Moderate
Duration of View	Low
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to substation components	Moderate
Vertical Field of View (apparent height measured at arm's length)	High
Visual obstructions between the viewpoint and the Project	Low
Horizontal Field of View	Moderate

LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Apparent

V29. Oyster Creek Substation

The viewshed analysis indicates that the transmission structures, conductors, and the lightning masts may be visible from the Barnegat Branch multi-purpose trail paralleling Route 9. However, views from the pathway would be at a distance of over 0.5 mile (i.e., in the midground viewing distance) and seen through a chain link enclosure, which would greatly limit the clarity of the view. Views from the pathway already contains a significant amount of industrial infrastructure in both the foreground and midground viewing distances, so the addition of the transmission structures, lightning masts, and other substation components would not seem out of character with the existing uses. The structures would not be visible from any other publicly accessible scenic resources.

The components used in the substation would be similar in color, scale, function, and appearance to those found at the existing generating facility. Visual contrast with existing conditions would be low. The two main buildings at the Oyster Creek substation could each be up to 166 or 149 feet in length x 50 feet in width and 35 or 40 feet in height. The maximum dimensions of the secondary building(s) could be up to 66 feet in length x 57 feet in width and 33 feet in height. The indicative height of the tallest electrical component would be 49 feet, which is less than the height of the surrounding forest cover and many of the buildings at the generating facility. Lightning masts may reach 98-feet in height, which are similar in height to existing light standards and electrical components seen from the bridge. The gray color of the galvanized metal and relatively low mass of the substation components would make them difficult to visually detect from the anticipated viewing distance. The most visible elements would be the firewalls, which would appear as flat two-dimensional screens, up to 82 feet in height.

From a visual perspective, Oyster Creek appears to be well suited for this type of use, in that a) it would be located in an existing large-scale generating facility with an existing substation, b) the site is well screened from public roads, and c) there is no public access.

V30. BL England Substation

BASELINE REPORT

Viewpoint Location	
Municipality, County	Upper Township, Cape May County
Location	Viewpoint is at the public fishing pier adjacent to the BL England Generating station at the end of Clay Avenue (a private way associated with the generating site).
Physiographic Area	Inland
Landscape Similarity Zone (LSZ)	Mainland
Scenic Resources	The former golf course (site of the proposed substation) was part of the BL England property but closed several years ago, along with a picnic area and other community recreation facilities. A fishing pier at the end of Clay Avenue remains open and affords anglers an opportunity to fish in Great Egg Harbor River just below the generating station.
Visual Character	
Vegetation	Mid-aged pines and other vegetation associated with the former golf course line Clay Avenue, providing screening opportunities for the proposed substation. South of the site is an extensive salt marsh marked by meandering streams and linear drainage channels.
Land Use	The site is part of the now-closed BL England Generation Station. Other nearby uses include a town park and beach (Beesley's Point Beach), a jet ski rental, a boat launch, a historic inn on North Shore Road. Single-family residential is the primary use south of the BL England site on either side of North Shore Road.
Topography	Basically a flat site with slight variation in elevation
Site Infrastructure	Wooden fishing pier, BL England Generating Station, Clay Avenue and parking lot, small pond (stormwater management).
Use Patterns	
Type of Activities	Fishing, walking, biking, dog-walking, working at the generating station, boating on Great Egg Harbor River.
Extent of Use	The fishing pier and Clay Avenue appears to have moderate usage, primarily by local residents and workers at the generating station.
Duration of Use	Year-round
Context	
Contextual Features	Contextual features visible from the vicinity of the fishing pier include the large-scale structures associated with the generating facility, a small parking area at the end of Clay Avenue, a small pond near the parking lot, lattice transmission structures crossing Great Egg Harbor River, and the Garden State Parkway bridge over the river.

INDIVIDUAL SITE EVALUATION FORM

#	VISUALIZATION	LSZ	PROJECT DISTANCE	TIME
V30	**BL England Substation**	Mainland	<0.25 mi	2:02 PM

SENSITIVITY TO CHANGE

LANDSCAPE'S CAPACITY TO ABSORB CHANGE	
	EVALUATION
Landform	Moderate-High
Visible Topography	Moderate-High
Water View	Moderate
Landscape Distinctiveness	Moderate-High
Natural Patterns	High
Development Patterns	High

USER SENSITIVITY	
	EVALUATION
Scenic Resource Value	Low-Moderate
Primary Use	Low-Moderate
Value of Water View	Low-Moderate
Use Level	Low-Moderate
Visitor Expectations	Low-Moderate
Duration of View	Moderate
Viewer Elevation	Low-Moderate

MAGNITUDE OF LANDSCAPE EFFECTS

PHYSICAL FACTORS AFFECTING VISIBILITY	EVALUATION
Distance to substation components	High
Vertical Field of View (apparent height measured at arm's length)	High
Visual obstructions between the viewpoint and the Project	Moderate
Horizontal Field of View	Moderate-High

LANDSCAPE COMPATABILITY	EVALUATION
Compatibility Evaluation	Conspicuous

V30. BL England Substation

The viewshed analysis indicates the substation components may be visible in the vicinity of the BL England generation station, in the surrounding marshland, and on Great Egg Harbor River. The nearby residential neighborhoods would not have views of the substation components. The most prominent viewpoint would be at the fishing pier at the end of Clay Avenue (a private road serving the generating station). From this viewpoint the lightning mast, transmission structures, firewalls, and at least one of the buildings would be visible above the surrounding trees.

The design, color, form, and materials of the components used in the substation would be similar to those found throughout the existing industrial landscape that surrounds the site. Contrast with existing conditions would be low. The main building in the proposed substation could be up to 81 feet in length x 67 feet in width and 33 feet in height. The maximum dimensions of the secondary building(s) could be up to 154 feet in length x 45 feet in width and 33 feet in height. The indicative height of the tallest electrical component would be 49 feet, which is less than the height of the generating facility and the surrounding forest cover. Lightning masts may reach 98 feet in height. The most visible elements would be the firewalls, which would appear as flat two-dimensional screens, up to 82 feet in height. The proposed substation and related infrastructure will be dwarfed by the existing generating building and its adjacent stack. The majority of the substation components would be screened by the existing trees on the west side of Clay Avenue, with the exception of the lightning masts, the firewalls, the transmission structures, and a portion of one of the buildings.

From a visual perspective, the BL England site appears to be well suited for this type of use, in that it would be located in an existing large-scale generating facility with an existing substation in place. The site is well screened from public roads and nearby residential neighborhoods. The components of the substation that would be visible would be seen in the context of the existing BL England Generation Station, a far larger and more visually dominant feature in the landscape. Existing vegetation presents an opportunity to screen the substation and minimize its presence in the landscape.