

In response to stakeholder interest regarding visual impacts from potential future renewable energy development within the New York Call Area, BOEM has undertaken a project to develop visual simulations of a hypothetical wind energy facility on the Outer Continental Shelf offshore Long Island, New York. The purpose of this study is to characterize the potential onshore visibility of offshore wind turbines from locations along the coasts of New York and New Jersey under different seasons, times of day and weather conditions.

BOEM is not currently considering the approval of a specific project within the Call Area; therefore, the visual simulations illustrate a *hypothetical project*. The *hypothetical project* was designed to represent a commercially-scaled and technically feasible scenario that is consistent with industry trends regarding operating capacity, wind turbine size, spacing and configuration. Per BOEM's guidelines, project-specific visual simulations would be prepared by a lessee and submitted with its construction and operations plan. See *Guidelines for Information Requirements for a Renewable Energy Construction and Operations Plan* at <a href="http://www.boem.gov/National-and-Regional-Guidelines-for-Renewable-Energy-Activities/">http://www.boem.gov/National-and-Regional-Guidelines-for-Renewable-Energy-Activities/</a>.

A series of accurate and realistic visual simulations of a hypothetical, commercial-scale wind energy facility within the New York Call Area were created from photographs and video taken at sixteen Key Observation Points located in New York and New Jersey. The simulations were further informed by a meteorological conditions assessment and a GIS-based viewshed analysis. A detailed description of the methods and supporting information used to create the visual simulations is provided in the Compendium Report accompanying the simulations.

#### Visual Simulation Overview

This appendix includes visual simulations of the Hypothetical Project prepared using photographs taken at each Key Observation Point. A cover sheet is provided for each Key Observation Point and includes:

- Base Photographic Documentation
- Camera Information
- Sun and Weather Information
- Turbine Information
- Image Preview
- Context Map
- Viewing Instructions

The cover sheet is then followed by an existing conditions photograph (showing the view with no turbines simulated); simulations of the turbines under different weather and lighting

conditions; and a wireframe simulation. Wireframe images depict turbines placed to scale within the image and with proper coloration but with no meteorological conditions or lighting added. Consequently, the turbines in those images appear more distinct and apparent than they might when viewed under actual weather and lighting conditions. These images overstate visibility, as such conditions are unlikely in a real-world scenario; however, they serve to orient the viewer to the location of the simulated turbines and illustrate the scale and height of the turbines from the distance of the specific Key Observation Point.

### Viewing Instructions

**Viewing instructions are provided on each simulation.** The visibility of the turbines on images projected on a computer screen will depend on the scale at which the image is being viewed. Simply put, zooming in on the image may overstate visibility. Conversely, zooming out or observing the image at full-screen will minimize the visibility of turbines. To view the simulations properly, adjust the zoom until the scale bar on the simulation measures four inches. Scaling the simulation in this manner will ensure that turbines – and other natural features in the view frame – are portrayed at an accurate scale and will ensure the field of view is similar to that experienced by an observer standing at the KOP. Once property scaled the images should be viewed from a distance of 11.2 inches.

#### Meteorological Visibility

Understanding the distinction between the visibility metrics provided in Section 2.0 of this report and the actual expected visibility of the turbines illustrated by the photosimulations is central to this visibly assessment. "Maximum Visibility" and "Average Predicted Visibility" refer to the definition of visibility provided in Section 2.0 of the Compendium Report: "the greatest distance at which an observer can just see a black object viewed against the horizon sky" (Malm 1999). "Average Visibility" metrics refer to the average distance at which a black object would be visible on the horizon based on the relationship between visibility and humidity. Please see Section 2 for more information.

# **Actual Visibility**

As discussed in Section 7 of the Compendium Report, the actual visibility of the offshore wind turbines as shown in the photo simulations will depend on a variety of factors, such as contrast of the turbines against the backdrop of the horizon, existing lighting and how it falls on the turbines, the degree of atmospheric haze, and observer characteristics. The simulations depict the appearance of light grey turbines under proper lighting and meteorological conditions (e.g., haze), consistent with those recorded at the time the photograph was taken. There is thus very little visual contrast between the color and distinction in form of the turbines as they "blend" with the color of the horizon. Please see Section 7 for more information.



**KOP:** Sunken Forest

Season: Summer Time of Day: Morning

# **Base Photographic Documentation**

9/20/2014
09:18
-73.112372
40.654935
31.31
5.41
198

#### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:

Camera Sensor Size:

36mm x 24mm

Lens Make & Model:

EF28mm f/1.8 USM

Lens Focal Length:

28mm

Field of View:

65.47° (H) / 46.397° (V)

#### **Sun And Weather Information**

Sun Azimuth: Sun Elevation: Lighting Angle (On Turbines): Weather Conditions: Maximum Visibility (NM): Average Predicted Visibility (NM): Wave Height (ft): Period (Seconds): Temperature (°F): Temperature (°C):	116.2427902 28.59638718 Back-Lit Clear 19.4 14.7 3.5 8 66
	19 65
Training (70).	

## **Image Preview**



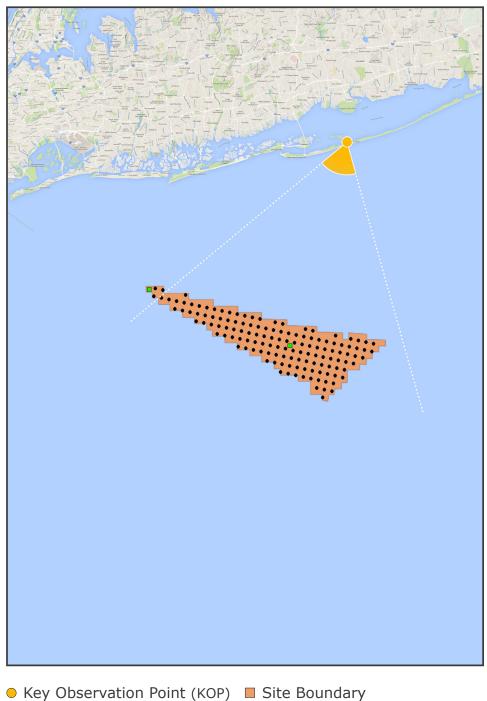
#### **Turbine Information**

Distance to Nearest Turbine (NM):	21.0
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

#### **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

# Scale bar to be 4 inches wide (102 mm)





This simulation illustrates a hypothetical project and does not represent an actual or proposed project. Adherence to the viewing instructions provided on this page is necessary to ensure that the images are accurately portrayed.

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**Sunken Forest** KOP:

Season: Summer Time of Day: Midday

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	7/3/2014
Time (24hr):	13:24
GPS Longitude:	-73.112372
GPS Latitude:	40.654935
Viewpoint Elevation (ft):	31.31
Camera Height (ft):	5.41
Camera Heading (°):	199

#### **Camera Information**

**Viewing Instructions** 

Camera Make & Model: Canon EOS 5D Mark III Camera Sensor Size: 36mm x 24mm EF28mm f/1.8 USM Lens Make & Model: Lens Focal Length: 28mm Field of View: 65.47° (H) / 46.397° (V)

#### **Sun And Weather Information**

Sun Azimuth: Sun Elevation:	200.012695 71.3564011
Lighting Angle (On Turbines): Weather Conditions:	Back-Lit Partly-Cloudy
Maximum Visibility (NM):	17.9
Average Predicted Visibility (NM):	14.7
Wave Height (ft):	3
Period (Seconds):	8
Temperature (°F):	81
Temperature (°C):	27
Humidity (%):	69

## **Image Preview**



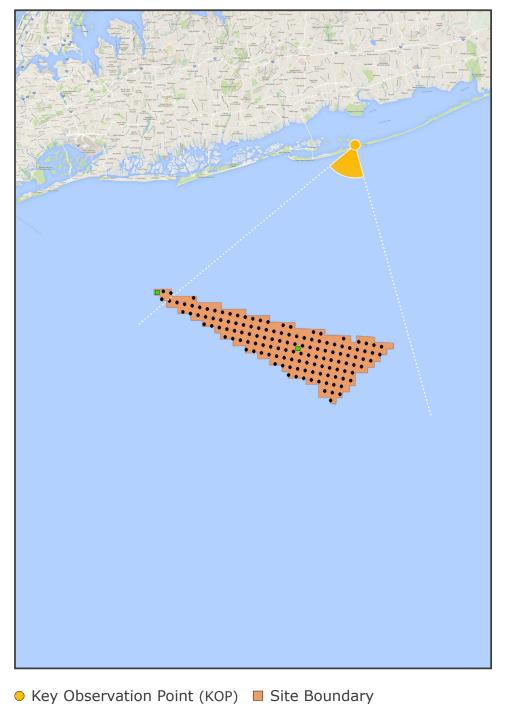
#### **Turbine Information**

Distance to Nearest Turbine (NM):	21.0
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

## **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

# Scale bar to be 4 inches wide (102 mm)



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**KOP:** Sunken Forest

Season: Summer Time of Day: Afternoon

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	7/3/2014
Time (24hr):	15:58
GPS Longitude:	-73.112372
GPS Latitude:	40.654935
Viewpoint Elevation (ft):	31.31
Camera Height (ft):	5.41
Camera Heading (°):	198

#### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:

Camera Sensor Size:

Lens Make & Model:

Lens Focal Length:

Field of View:

Canon EOS 5D Mark III

36mm x 24mm

EF28mm f/1.8 USM

28mm

65.47° (H) / 46.397° (V)

#### **Sun And Weather Information**

Sun Azimuth:	259.0548094
Sun Elevation:	48.15995026
Lighting Angle (On Turbines):	Right-Lit
Weather Conditions:	Clear
Maximum Visibility (NM):	18.7
Average Predicted Visibility (NM):	14.7
Wave Height (ft):	3
Period (Seconds):	8
Temperature (°F):	77
Temperature (°C):	25
Humidity (%):	67

## **Image Preview**



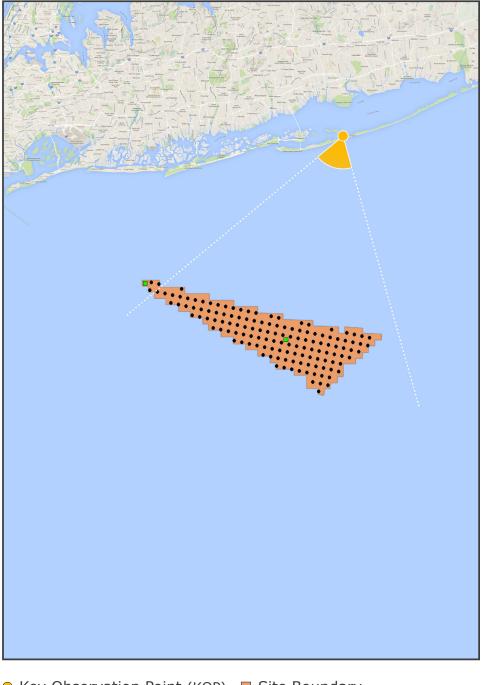
#### **Turbine Information**

Distance to Nearest Turbine (NM):	21.0
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

## **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

# Scale bar to be 4 inches wide (102 mm)





For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

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SIMULATION OF PROJECT: WIREFRAME (SUMMER / AFTERNOON)

# **Truescape**®



KOP: Jones Beach

Season: Summer Time of Day: Morning

# **Base Photographic Documentation**

9/19/2014
09:25
-73.507291
40.59421
16.28
5.41
146

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:	Canon EOS 5D Mark III
Camera Sensor Size:	36mm x 24mm
Lens Make & Model:	EF28mm f/1.8 USM
Lens Focal Length:	28mm
Field of View:	65.47° (H) / 46.397° (V)

#### **Sun And Weather Information**

Sun Azimuth: Sun Elevation:	116.9773937 29.7666904
Lighting Angle (On Turbines):	Back-Lit
Weather Conditions:	Partly-Cloudy
Maximum Visibility (NM):	23.5
Average Predicted Visibility (NM):	16.3
Wave Height (ft):	2.5
Period (Seconds):	11
Temperature (°F):	57
Temperature (°C):	14
Humidity (%):	52

## **Image Preview**



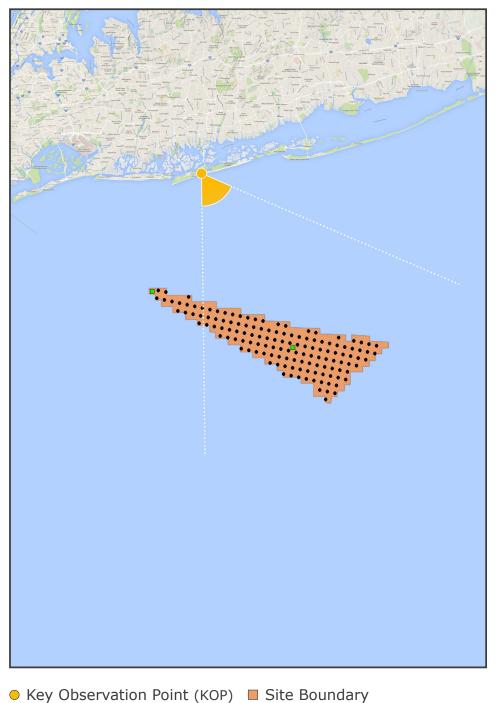
#### **Turbine Information**

Distance to Nearest Turbine (NM):	12.9
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

# **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

# Scale bar to be 4 inches wide (102 mm)



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For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

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For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)





KOP: Jones Beach

Season: Summer Time of Day: Midday

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/19/2014
Time (24hr):	12:15
GPS Longitude:	-73.507291
GPS Latitude:	40.59421
Viewpoint Elevation (ft):	16.28
Camera Height (ft):	5.41
Camera Heading (°):	148

#### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:

Camera Sensor Size:

36mm x 24mm

Lens Make & Model:

EF28mm f/1.8 USM

Lens Focal Length:

28mm

Field of View:

65.47° (H) / 46.397° (V)

#### **Sun And Weather Information**

Sun Azimuth:	167.191347
Sun Elevation:	50.04196661
Lighting Angle (On Turbines):	Back-Lit
Weather Conditions:	Partly-Cloudy
Maximum Visibility (NM):	25.2
Average Predicted Visibility (NM):	16.3
Wave Height (ft):	2.5
Period (Seconds):	11
Temperature (°F):	61
Temperature (°C):	16
Humidity (%):	45

## **Image Preview**



#### **Turbine Information**

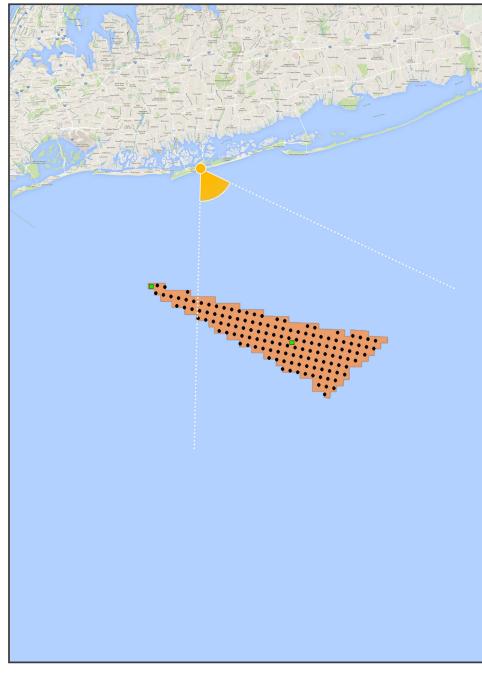
Distance to Nearest Turbine (NM):	12.9
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

# **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

# Scale bar to be 4 inches wide (102 mm)

## **Context Map**

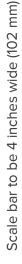


Key Observation Point (KOP)
 Site Boundary
 Turbine
 Electrical Service Platform

EXISTING CONDITIONS (SUMMER / MIDDAY)

# **Truescape**®

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For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)



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KOP: Jones Beach

Season: Summer Time of Day: Afternoon

# **Base Photographic Documentation**

8/7/2014
14:12
-73.507291
40.59421
16.28
5.41
148

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:

Camera Sensor Size:

36mm x 24mm

Lens Make & Model:

EF28mm f/1.8 USM

Lens Focal Length:

28mm

Field of View:

65.47° (H) / 46.397° (V)

#### **Sun And Weather Information**

Sun Azimuth: Sun Elevation: Lighting Angle (On Turbines): Weather Conditions: Maximum Visibility (NM): Average Predicted Visibility (NM): Wave Height (ft): Period (Seconds): Temperature (°F):	217.9965494 61.09625088 Right-Lit Clear 27.2 16.3 2.5 8
·	_
Temperature (°C): Humidity (%):	26 34

## **Image Preview**



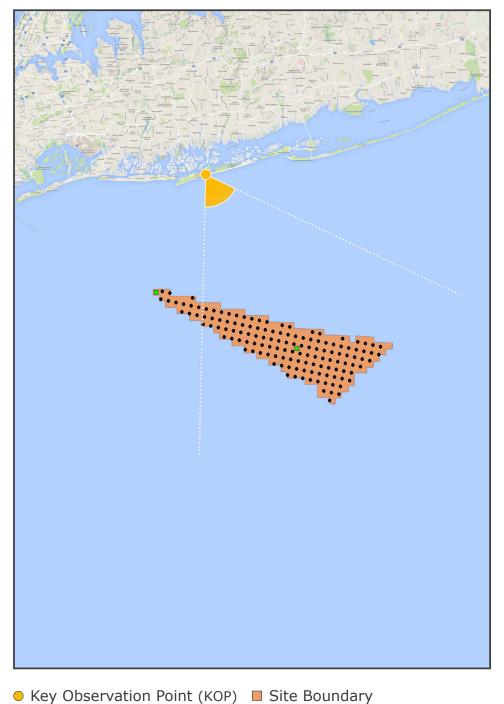
#### **Turbine Information**

Distance to Nearest Turbine (NM):	12.9
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

# Scale Bar

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)
For On-Screen Display: Viewing distance is 11.2 inches (285 mm)





SIMULATION OF PROJECT UNDER MAXIMUM VISIBILITY (SUMMER / AFTERNOON)

# Truescape



**KOP:** Jacob Riis Park

Season: Summer Time of Day: Morning

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	8/7/2014
Time (24hr):	10:33
GPS Longitude:	-73.869745
GPS Latitude:	40.565889
Viewpoint Elevation (ft):	15.57
Camera Height (ft):	5.41
Camera Heading (°):	120

#### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:	Canon EOS 5D Mark III
Camera Sensor Size:	36mm x 24mm
Lens Make & Model:	EF28mm f/1.8 USM
Lens Focal Length:	28mm
Field of View:	65.47° (H) / 46.397° (V)

#### **Sun And Weather Information**

Sun Azimuth:	116.1922069
Sun Elevation:	49.8712415
Lighting Angle (On Turbines):	Back-Lit
Weather Conditions:	Clear
Maximum Visibility (NM):	27.1
Average Predicted Visibility (NM):	16.3
Wave Height (ft):	2.5
Period (Seconds):	8
Temperature (°F):	73
Temperature (°C):	23
Humidity (%):	35

## **Image Preview**



#### **Turbine Information**

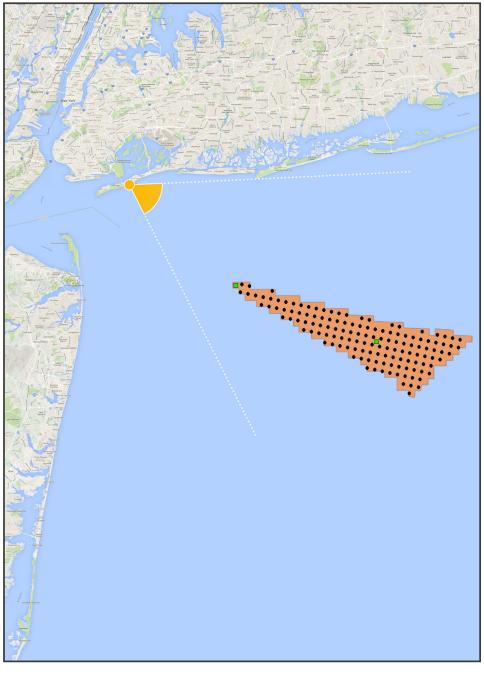
Distance to Nearest Turbine (NM):	15.9
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

## **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

# Scale bar to be 4 inches wide (102 mm)

## **Context Map**





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**KOP:** Jacob Riis Park

Season: Summer Time of Day: Midday

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/19/2014
Time (24hr):	10:56
GPS Longitude:	-73.869745
GPS Latitude:	40.565889
Viewpoint Elevation (ft):	15.57
Camera Height (ft):	5.41
Camera Heading (°):	122

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:	Canon EOS 5D Mark III
Camera Sensor Size:	36mm x 24mm
Lens Make & Model:	EF28mm f/1.8 USM
Lens Focal Length:	28mm
Field of View:	65.47° (H) / 46.397° (V)

### **Sun And Weather Information**

Sun Azimuth: Sun Elevation:	139.4718873 43.1568258
Lighting Angle (On Turbines): Weather Conditions:	Back-Lit Partly-Cloudy
Maximum Visibility (NM):	24.0
Average Predicted Visibility (NM): Wave Height (ft):	16.3 2
Period (Seconds):	11
Temperature (°F):	61
Temperature (°C): Humidity (%):	16 50

### **Image Preview**



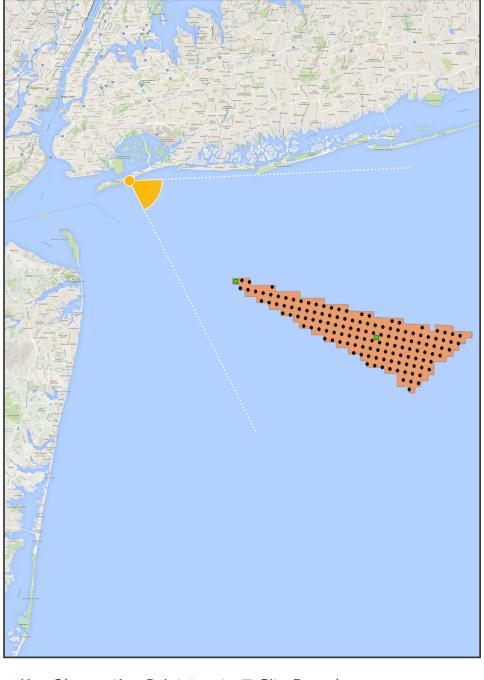
### **Turbine Information**

Distance to Nearest Turbine (NM):	15.9
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

# **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)





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For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

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KOP: **Jacob Riis Park** 

Season: Summer Time of Day: Afternoon

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/19/2014
Time (24hr):	14:34
GPS Longitude:	-73.869745
GPS Latitude:	40.565889
Viewpoint Elevation (ft):	15.57
Camera Height (ft):	5.41
Camera Heading (°):	121

### **Camera Information**

Camera Make & Model: Canon EOS 5D Mark III Camera Sensor Size: 36mm x 24mm EF28mm f/1.8 USM Lens Make & Model: Lens Focal Length: 28mm 65.47° (H) / 46.397° (V) Field of View:

### **Sun And Weather Information**

Sun Azimuth: Sun Elevation: Lighting Angle (On Turbines): Weather Conditions: Maximum Visibility (NM): Average Predicted Visibility (NM): Wave Height (ft): Period (Seconds): Temperature (°F): Temperature (°C):	217.9492205 44.11290898 Right-Lit Clear 24.5 16.3 1.9 11 63

# **Viewing Instructions**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

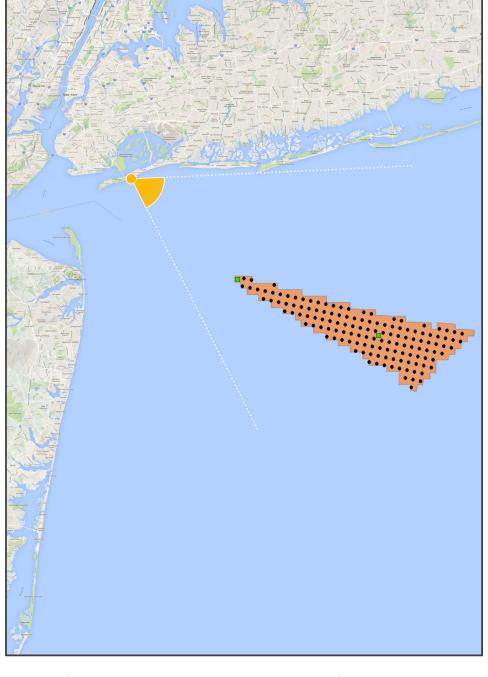
### **Image Preview**



### **Turbine Information**

Distance to Nearest Turbine (NM):	15.9
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

**Context Map** 





Scale bar to be 4 inches wide (102 mm)

Key Observation Point (KOP)■ Site Boundary Turbine ■ Electrical Service Platform

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KOP: **Great Kills** Season: Summer Time of Day: Morning

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/19/2014
Time (24hr):	10:21
GPS Longitude:	-74.129602
GPS Latitude:	40.537553
Viewpoint Elevation (ft):	16.62
Camera Height (ft):	5.41
Camera Heading (°):	118

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:	Canon EOS 1Ds Mark III
Camera Sensor Size:	36mm x 24mm
Lens Make & Model:	EF28mm f/1.8 USM
Lens Focal Length:	28mm
Field of View:	65.47° (H) / 46.397° (V)

### **Sun And Weather Information**

Sun Azimuth: Sun Elevation: Lighting Angle (On Turbines): Weather Conditions: Maximum Visibility (NM): Average Predicted Visibility (NM): Wave Height (ft): Period (Seconds): Temperature (°F): Temperature (°C):	129.4487762 38.29331934 Back-Lit Cloud 23.5 17.7 1.9 11 61
Temperature (°C): Humidity (%):	16 52

# **Image Preview**

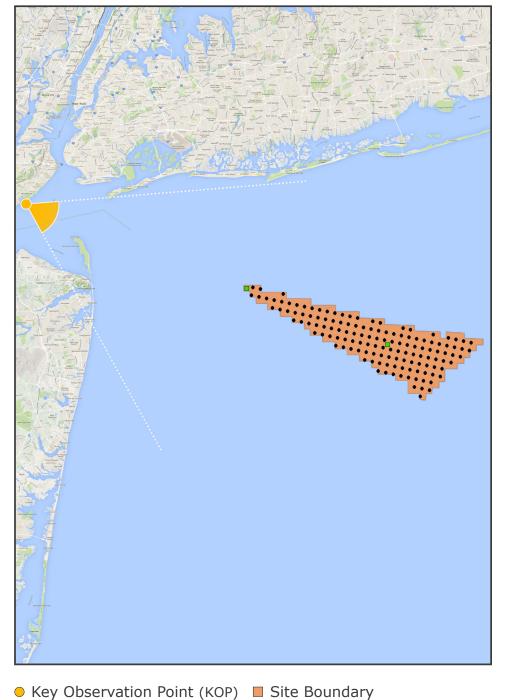


### **Turbine Information**

Distance to Nearest Turbine (NM):	25.5
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

# **Scale Bar**

Viewing distance is 11.2 inches (285 mm) For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display:



This simulation illustrates a hypothetical project and does not represent an actual or proposed project. Adherence to the viewing instructions provided on this page is necessary to ensure that the images are accurately portrayed.

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

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KOP: Great Kills
Season: Summer
Time of Day: Midday

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/19/2014
Time (24hr):	12:19
GPS Longitude:	-74.129602
GPS Latitude:	40.537553
Viewpoint Elevation (ft):	16.62
Camera Height (ft):	5.41
Camera Heading (°):	118

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:

Camera Sensor Size:

36mm x 24mm

Lens Make & Model:

EF28mm f/1.8 USM

Lens Focal Length:

28mm

Field of View:

65.47° (H) / 46.397° (V)

### **Sun And Weather Information**

Sun Azimuth: Sun Elevation: Lighting Angle (On Turbines):	167.7579113 50.15847731 Back-Lit
Weather Conditions:	Partly-Cloudy
Maximum Visibility (NM):	25.2
Average Predicted Visibility (NM):	17.7
Wave Height (ft):	1.9
Period (Seconds):	11
Temperature (°F):	61
Temperature (°C):	16
Humidity (%):	45

### **Image Preview**



### **Turbine Information**

Distance to Nearest Turbine (NM):	25.5
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

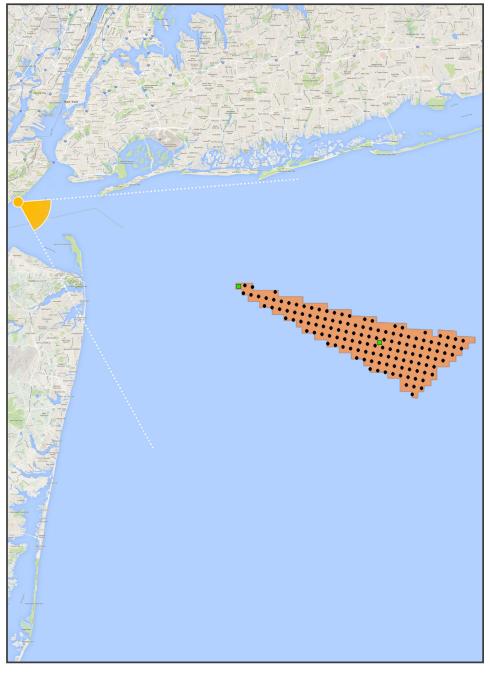
# **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

# \_\_\_\_\_

# Scale bar to be 4 inches wide (102 mm)

### **Context Map**





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For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

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Unprotected Beach

No Lifeguards

SIMULATION OF PROJECT UNDER MAXIMUM VISIBILITY (SUMMER / MIDDAY)

# Truescape

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

SIMULATION OF PROJECT: WIREFRAME (SUMMER / MIDDAY)

# Truescape



For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)



KOP: **Great Kills** Season: Summer Time of Day: Afternoon

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/19/2014
Time (24hr):	14:00
GPS Longitude:	-74.129602
GPS Latitude:	40.537553
Viewpoint Elevation (ft):	16.62
Camera Height (ft):	5.41
Camera Heading (°):	119

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:	Canon EOS 1Ds Mark II
Camera Sensor Size:	36mm x 24mm
Lens Make & Model:	EF28mm f/1.8 USN
Lens Focal Length:	28mm
Field of View:	65.47° (H) / 46.397° (V

### **Sun And Weather Information**

Sun Azimuth:	206.445944
Sun Elevation:	47.69859662
Lighting Angle (On Turbines):	Right-Lit
Weather Conditions:	Partly-Cloudy
Maximum Visibility (NM):	25.2
Average Predicted Visibility (NM):	17.7
Wave Height (ft):	1.7
Period (Seconds):	11
Temperature (°F):	63
Temperature (°C):	17
Humidity (%):	45

### **Image Preview**



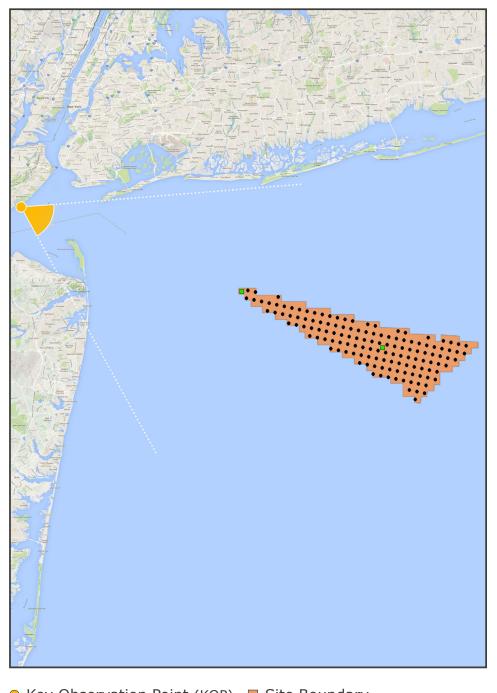
### **Turbine Information**

Distance to Nearest Turbine (NM):	25.5
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

# **Scale Bar**

Viewing distance is 11.2 inches (285 mm) For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display:

# Scale bar to be 4 inches wide (102 mm)



For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

No Lifeguards

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SIMULATION OF PROJECT UNDER MAXIMUM VISIBILITY (SUMMER / AFTERNOON)

# **Truescape**®

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

No Lifeguards

This simulation illustrates a hypothetical project and does not represent an actual or proposed project. Adherence to the viewing instructions provided on this page is necessary to ensure that the images are accurately portrayed.

SIMULATION OF PROJECT: WIREFRAME (SUMMER / AFTERNOON)

# **Truescape**®

No Lifeguards

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)



KOP: Sandy Hook North Beach

Season: Summer Time of Day: Morning

### **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/18/2014
Time (24hr):	10:19
GPS Longitude:	-73.994414
GPS Latitude:	40.468987
Viewpoint Elevation (ft):	10.94
Camera Height (ft):	5.41
Camera Heading (°):	90

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:

Camera Sensor Size:

36mm x 24mm

Lens Make & Model:

EF28mm f/1.8 USM

Lens Focal Length:

28mm

Field of View:

65.47° (H) / 46.397° (V)

### **Sun And Weather Information**

Sun Azimuth: Sun Elevation: Lighting Angle (On Turbines): Weather Conditions: Maximum Visibility (NM): Average Predicted Visibility (NM): Wave Height (ft): Period (Seconds): Temperature (°F): Temperature (°C):	128.6474652 38.38152032 Back-Lit Clear 22.3 16.3 3.5 13 66
• • • • • • • • • • • • • • • • • • • •	19 56

### **Image Preview**



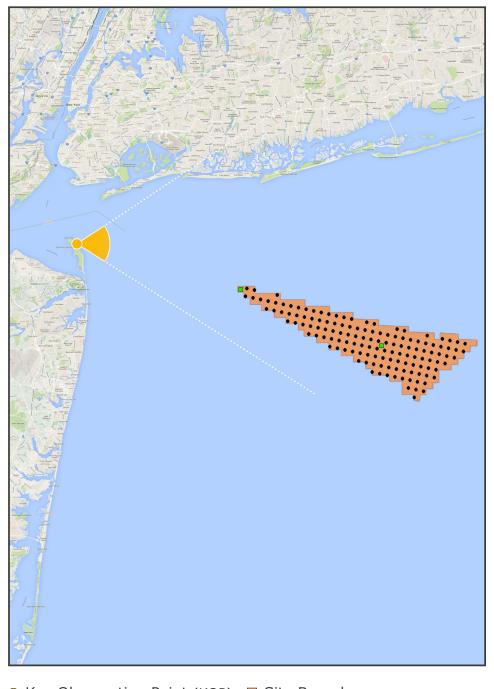
### **Turbine Information**

Distance to Nearest Turbine (NM):	18.4
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

#### **Scale Bar**

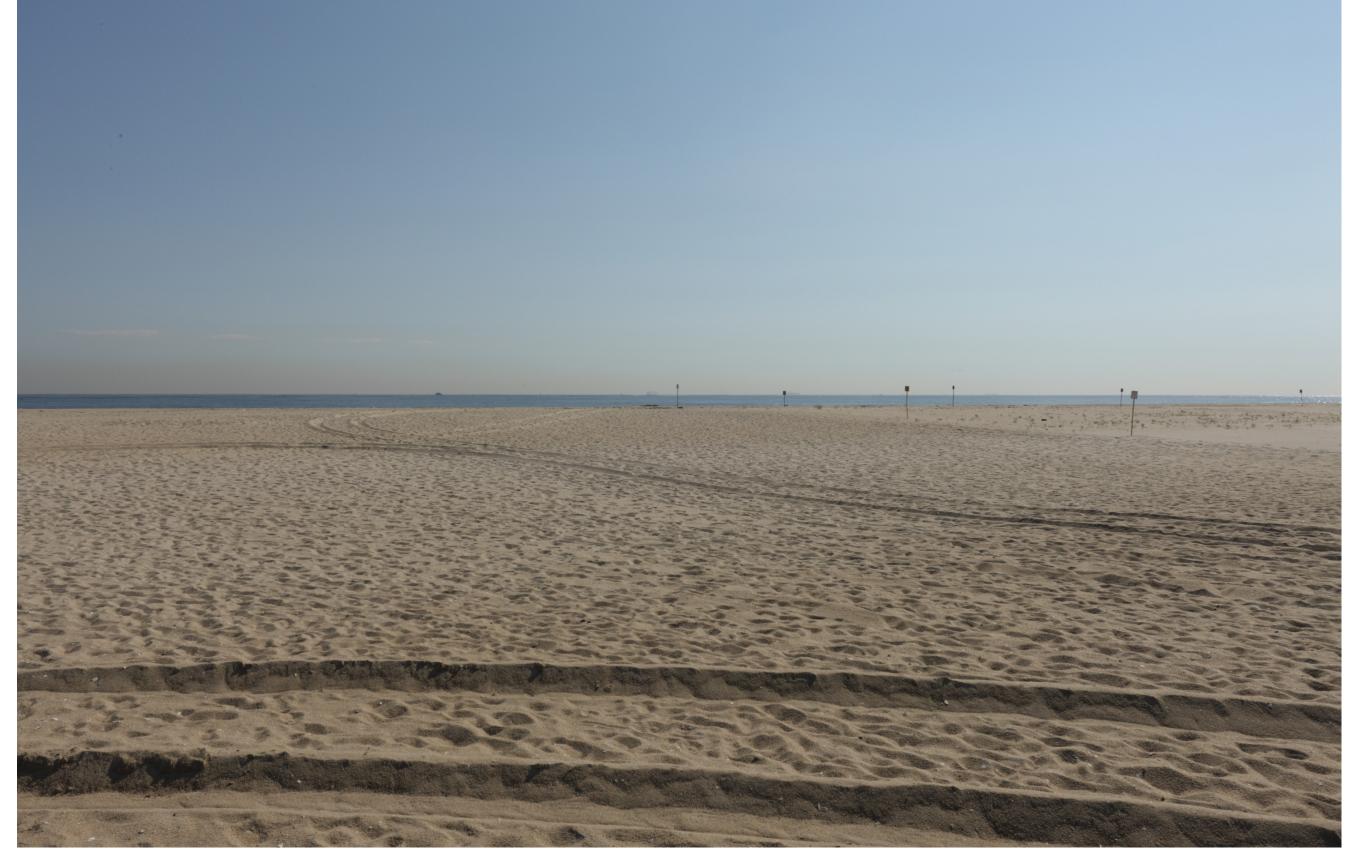
For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)





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KOP: Sandy Hook North Beach

Season: Summer Time of Day: Midday

### **Base Photographic Documentation**

Date (MM/DD/YYYY):	8/28/2014
Time (24hr):	11:44
GPS Longitude:	-73.994414
GPS Latitude:	40.468987
Viewpoint Elevation (ft):	10.94
Camera Height (ft):	5.41
Camera Heading (°):	90

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:

Camera Sensor Size:

Lens Make & Model:

Lens Focal Length:

Field of View:

Canon EOS 5D Mark III

36mm x 24mm

EF28mm f/1.8 USM

28mm

65.47° (H) / 46.397° (V)

### **Sun And Weather Information**

Sun Azimuth:	147.2465503
Sun Elevation:	55.11046539
Lighting Angle (On Turbines):	Right-Lit
Weather Conditions:	Clear
Maximum Visibility (NM):	24.0
Average Predicted Visibility (NM):	16.3
Wave Height (ft):	4.5
Period (Seconds):	13
Temperature (°F):	77
Temperature (°C):	25
Humidity (%):	50

### **Image Preview**



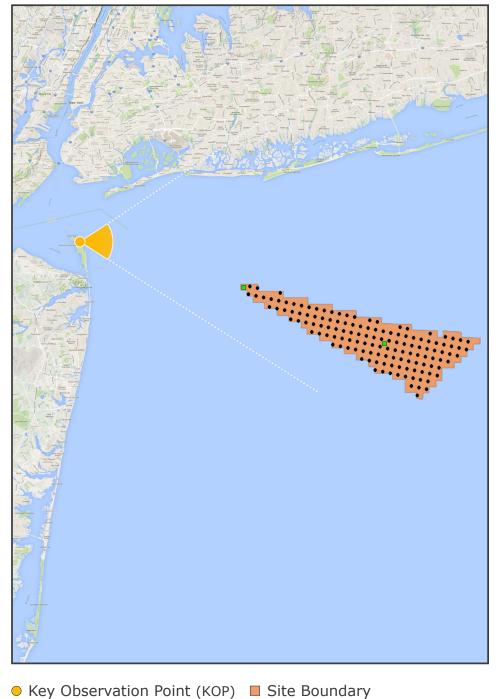
### **Turbine Information**

Distance to Nearest Turbine (NM):	18.4
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

#### **Scale Bar**

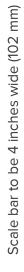
For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)





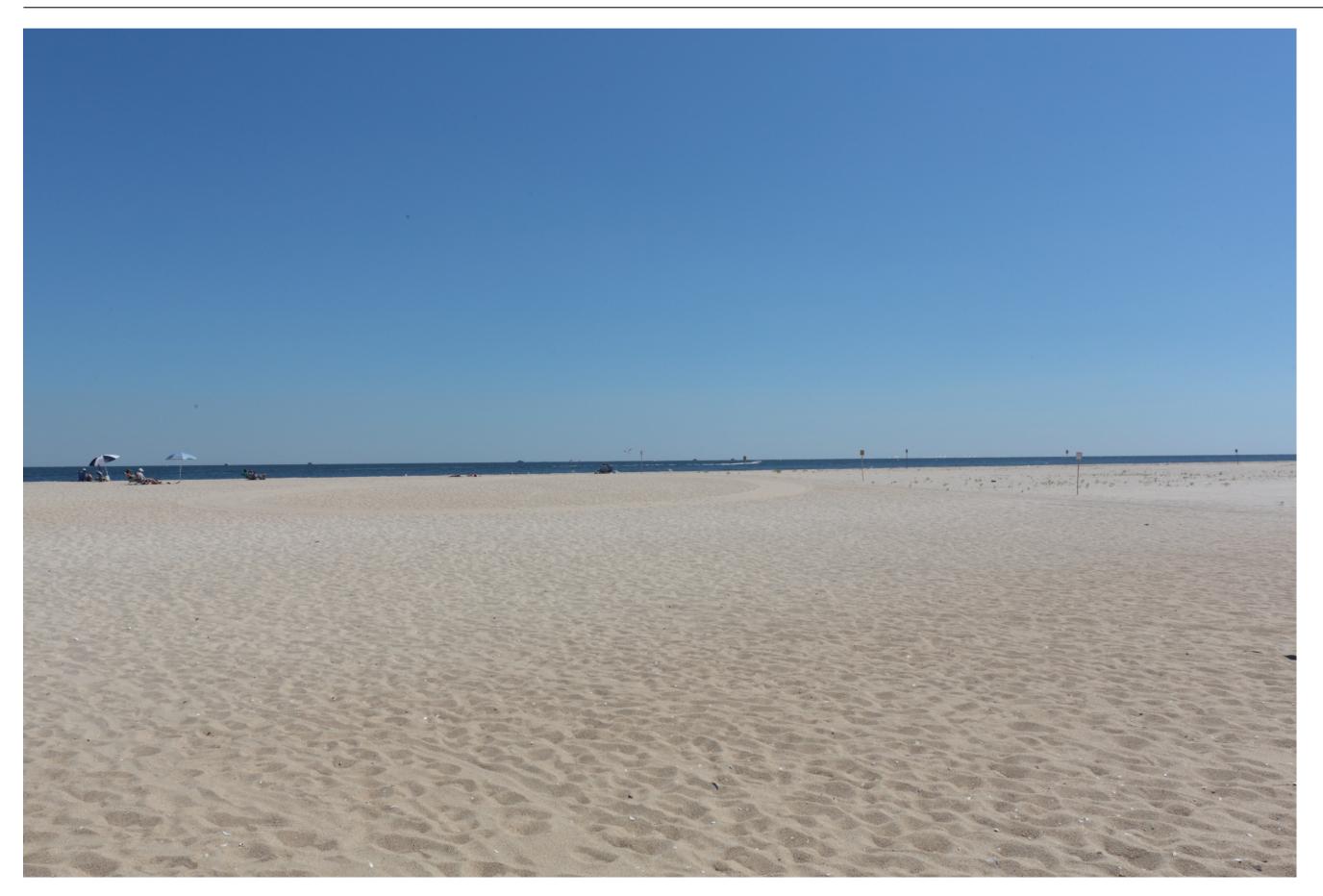
This simulation illustrates a hypothetical project and does not represent an actual or proposed project. Adherence to the viewing instructions provided on this page is necessary to ensure that the images are accurately portrayed.

# **Truescape**<sup>®</sup>



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KOP: Sandy Hook North Beach

Season: Summer Time of Day: Afternoon

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/5/2014
Time (24hr):	14:27
GPS Longitude:	-73.994414
GPS Latitude:	40.468987
Viewpoint Elevation (ft):	10.94
Camera Height (ft):	5.41
Camera Heading (°):	93

### **Camera Information**

Camera Make & Model:

Camera Sensor Size:

36mm x 24mm

Lens Make & Model:

EF28mm f/1.8 USM

Lens Focal Length:

28mm

Field of View:

65.47° (H) / 46.397° (V)

### **Sun And Weather Information**

Sun Azimuth:	217.6558243
Sun Elevation:	50.35620858
Lighting Angle (On Turbines):	Front-Lit
Weather Conditions:	Clear
Maximum Visibility (NM):	19.0
Average Predicted Visibility (NM):	16.3
Wave Height (ft):	0.8
Period (Seconds):	8
Temperature (°F):	82
Temperature (°C):	28
Humidity (%):	66

## **Image Preview**



### **Turbine Information**

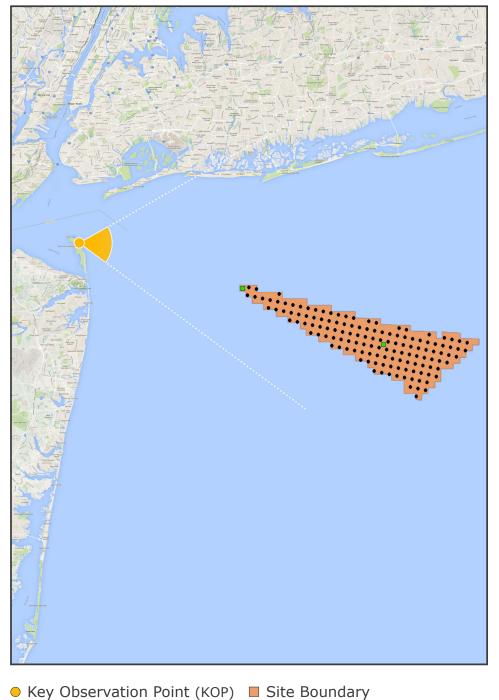
Distance to Nearest Turbine (NM):	18.4
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

# Viewing Instructions Scale Bar

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)
For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

# Scale bar to be 4 inches wide (102 mm)

# **Context Map**



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KOP: Twin Light NHL, aka Navesink Light Station

Season: Summer Time of Day: Morning

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	8/28/2014
Time (24hr):	09:24
GPS Longitude:	-73.98546
GPS Latitude:	40.396035
Viewpoint Elevation (ft):	254.78
Camera Height (ft):	5.41
Camera Heading (°):	106

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:	Canon EOS 5D Mark III
Camera Sensor Size:	36mm x 24mm
Lens Make & Model:	EF28mm f/1.8 USM
Lens Focal Length:	28mm
Field of View:	65.47° (H) / 46.397° (V)

### **Sun And Weather Information**

Sun Azimuth: Sun Elevation:	107.8658065 33.8550613
Lighting Angle (On Turbines):	Back-Lit
Weather Conditions:	Clear
Maximum Visibility (NM):	23.2
Average Predicted Visibility (NM):	16.3
Wave Height (ft):	5
Period (Seconds):	14
Temperature (°F):	72
Temperature (°C):	22
Humidity (%):	53

# **Image Preview**



### **Turbine Information**

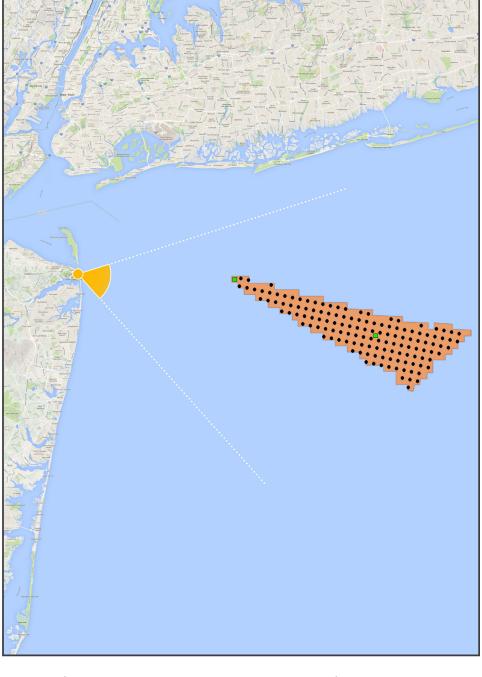
Distance to Nearest Turbine (NM):	17.2
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

# **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

# Scale bar to be 4 inches wide (102 mm)

# **Context Map**





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This simulation illustrates a hypothetical project and does not represent an actual or proposed project. Adherence to the viewing instructions provided on this page is necessary to ensure that the images are accurately portrayed.

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)



KOP: Twin Light NHL, aka Navesink Light Station

Season: Summer Time of Day: Midday

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/18/2014
Time (24hr):	11:46
GPS Longitude:	-73.98546
GPS Latitude:	40.396035
Viewpoint Elevation (ft):	254.78
Camera Height (ft):	5.41
Camera Heading (°):	105

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:

Camera Sensor Size:

36mm x 24mm

Lens Make & Model:

EF28mm f/1.8 USM

Lens Focal Length:

28mm

Field of View:

65.47° (H) / 46.397° (V)

### **Sun And Weather Information**

Sun Azimuth: Sun Elevation: Lighting Angle (On Turbines): Weather Conditions: Maximum Visibility (NM): Average Predicted Visibility (NM): Wave Height (ft): Period (Seconds): Temperature (°F): Temperature (°C):	155.3163499 48.69910796 Back-Lit Clear 25.6 16.3 3 13 72
. , ,	22 43

## **Image Preview**



### **Turbine Information**

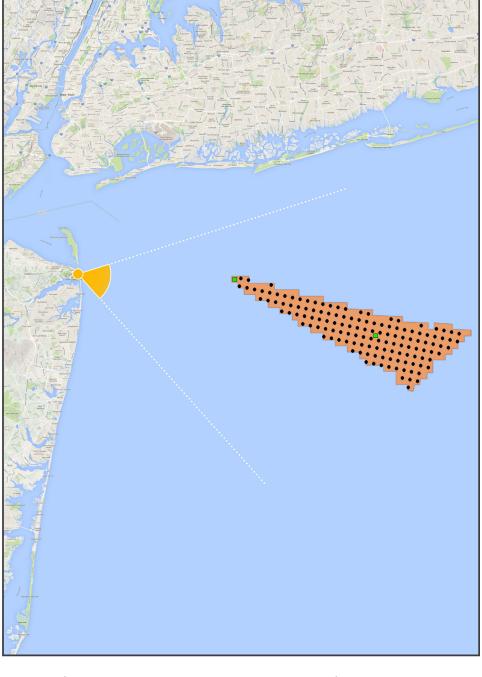
Distance to Nearest Turbine (NM):	17.2
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

## **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

# Scale bar to be 4 inches wide (102 mm)

## **Context Map**



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Twin Light NHL, aka Navesink Light Station KOP:

Season: Summer Time of Day: Afternoon

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/18/2014
Time (24hr):	13:50
GPS Longitude:	-73.98546
GPS Latitude:	40.396035
Viewpoint Elevation (ft):	254.78
Camera Height (ft):	5.41
Camera Heading (°):	104

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model: Canon EOS 1Ds Mark III Camera Sensor Size: 36mm x 24mm EF28mm f/1.8 USM Lens Make & Model: Lens Focal Length: 28mm Field of View: 65.47° (H) / 46.397° (V)

### **Sun And Weather Information**

Sun Azimuth: Sun Elevation:	203.2151068 48.97839896
Lighting Angle (On Turbines):	Right-Lit
Weather Conditions:	Clear
Maximum Visibility (NM):	26.6
Average Predicted Visibility (NM):	16.3
Wave Height (ft):	2.5
Period (Seconds):	12
Temperature (°F):	73
Temperature (°C):	23
Humidity (%):	38

# **Image Preview**



### **Turbine Information**

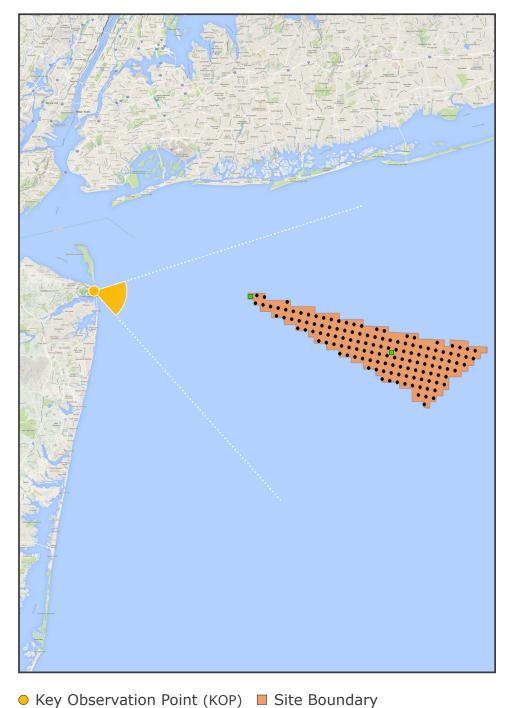
Distance to Nearest Turbine (NM):	17.2
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

# **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

# Scale bar to be 4 inches wide (102 mm)

## **Context Map**



This simulation illustrates a hypothetical project and does not represent an actual or proposed project. Adherence to the viewing instructions provided on this page is necessary to ensure that the images are accurately portrayed.



KOP: Rumson
Season: Summer
Time of Day: Morning

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/5/2014
Time (24hr):	10:29
GPS Longitude:	-73.973794
GPS Latitude:	40.366991
Viewpoint Elevation (ft):	19.40
Camera Height (ft):	5.41
Camera Heading (°):	93

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:	Canon EOS 1Ds Mark III
Camera Sensor Size:	36mm x 24mm
Lens Make & Model:	EF28mm f/1.8 USM
Lens Focal Length:	28mm
Field of View:	65.47° (H) / 46.397° (V)

### **Sun And Weather Information**

Sun Azimuth: Sun Elevation: Lighting Angle (On Turbines):	126.0583082 43.2089742 Right-Lit
Weather Conditions:	Partly-Cloudy 15.9
Maximum Visibility (NM):  Average Predicted Visibility (NM):	16.3
Wave Height (ft):	0.7
Period (Seconds):	8
Temperature (°F):	77
Temperature (°C):	25
Humidity (%):	74

# **Image Preview**



### **Turbine Information**

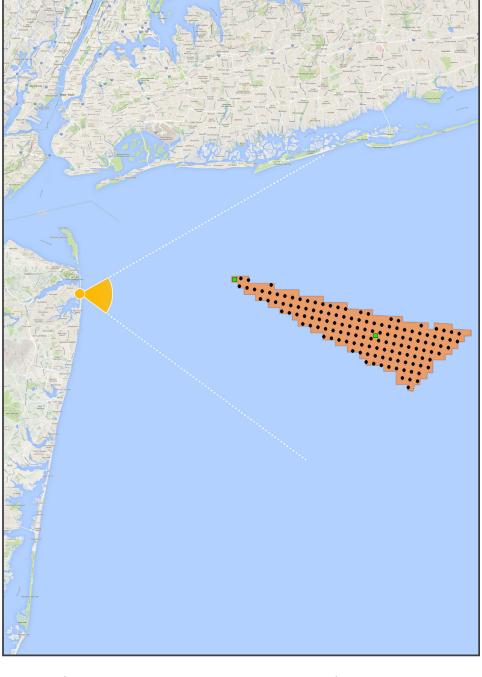
Distance to Nearest Turbine (NM):	16.7
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

## **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

# Scale bar to be 4 inches wide (102 mm)

# **Context Map**





SIMULATION OF PROJECT UNDER AVERAGE PREDICTED VISIBILITY (SUMMER / MORNING)

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KOP: Rumson
Season: Summer
Time of Day: Midday

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/5/2014
Time (24hr):	11:52
GPS Longitude:	-73.973794
GPS Latitude:	40.366991
Viewpoint Elevation (ft):	19.40
Camera Height (ft):	5.41
Camera Heading (°):	95

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:

Camera Sensor Size:

36mm x 24mm

Lens Make & Model:

EF28mm f/1.8 USM

Lens Focal Length:

28mm

Field of View:

65.47° (H) / 46.397° (V)

### **Sun And Weather Information**

Sun Azimuth: Sun Elevation: Lighting Angle (On Turbines): Weather Conditions: Maximum Visibility (NM): Average Predicted Visibility (NM): Wave Height (ft): Period (Seconds): Temperature (°F): Temperature (°C):	153.2456629 53.51490366 Right-Lit Partly-Cloudy 17.5 16.3 0.8 8 79 26
Temperature (°C): Humidity (%):	26 70

## **Image Preview**

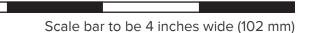


### **Turbine Information**

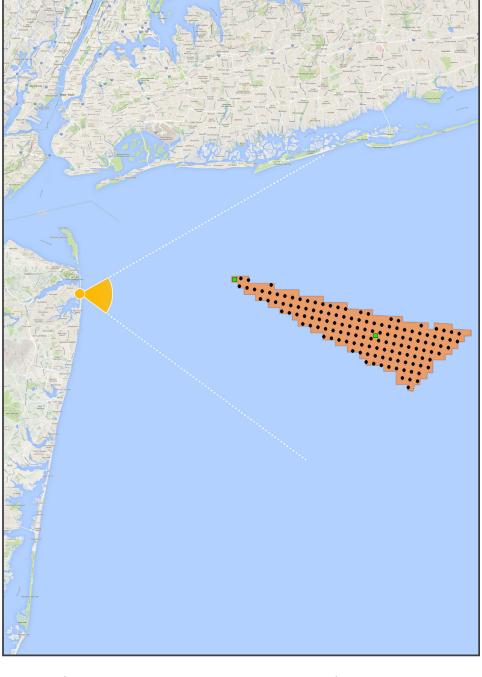
Distance to Nearest Turbine (NM):	16.7
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

# **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)



## **Context Map**



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KOP: Rumson
Season: Summer
Time of Day: Afternoon

# **Base Photographic Documentation**

Date (MM/DD/YYYY):	8/28/2014
Time (24hr):	14:40
GPS Longitude:	-73.973794
GPS Latitude:	40.366991
Viewpoint Elevation (ft):	19.40
Camera Height (ft):	5.41
Camera Heading (°):	94

### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:	Canon EOS 5D Mark III
Camera Sensor Size:	36mm x 24mm
Lens Make & Model:	EF28mm f/1.8 USM
Lens Focal Length:	28mm
Field of View:	65.47° (H) / 46.397° (V)

### **Sun And Weather Information**

Sun Azimuth:	223.6377722
Sun Elevation:	51.64052205
Lighting Angle (On Turbines):	Front-Lit
Weather Conditions:	Clear
Maximum Visibility (NM):	26.4
Average Predicted Visibility (NM):	16.3
Wave Height (ft):	5
Period (Seconds):	13
Temperature (°F):	77
Temperature (°C):	25
Humidity (%):	39

## **Image Preview**



### **Turbine Information**

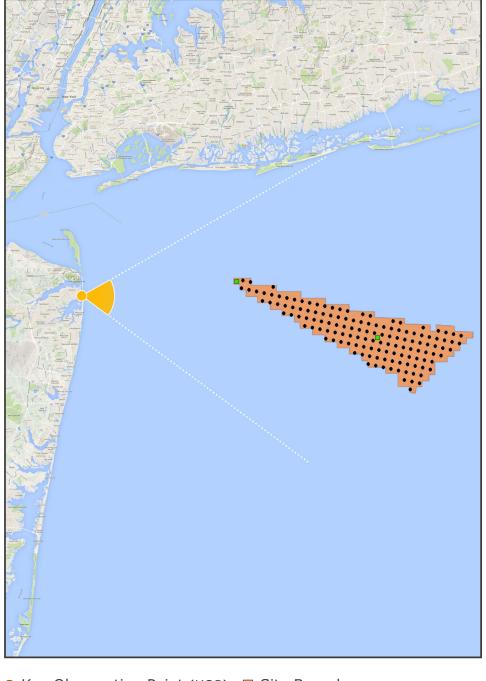
Distance to Nearest Turbine (NM):	16.7
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

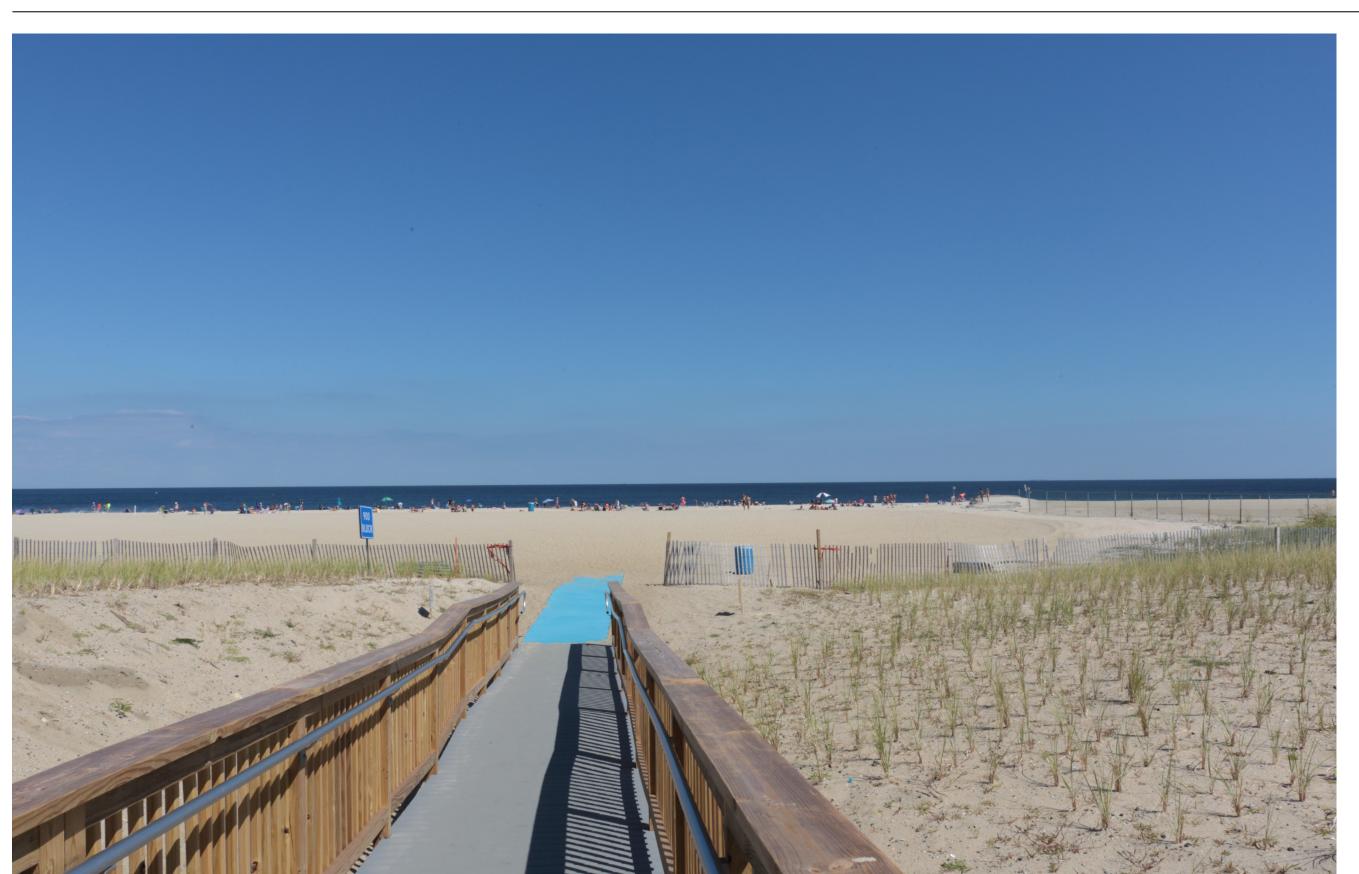
# **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)



# **Context Map**







**Asbury Park** KOP:

Season: Summer Time of Day: Morning

#### **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/5/2014
Time (24hr):	09:45
GPS Longitude:	-73.998334
GPS Latitude:	40.224404
Viewpoint Elevation (ft):	19.14
Camera Height (ft):	5.41
Camera Heading (°):	66

#### **Camera Information**

**Viewing Instructions** 

Canon EOS 1Ds Mark III Camera Make & Model: Camera Sensor Size: 36mm x 24mm EF28mm f/1.8 USM Lens Make & Model: Lens Focal Length: 28mm 65.47° (H) / 46.397° (V) Field of View:

#### **Sun And Weather Information**

Sun Azimuth:	115.2469093
Sun Elevation:	36.05204795
Lighting Angle (On Turbines):	Back-Lit
Weather Conditions:	Clear
Maximum Visibility (NM):	11.8
Average Predicted Visibility (NM):	16.3
Wave Height (ft):	0.9
Period (Seconds):	8
Temperature (°F):	77
Temperature (°C):	25
Humidity (%):	83

#### **Image Preview**



#### **Turbine Information**

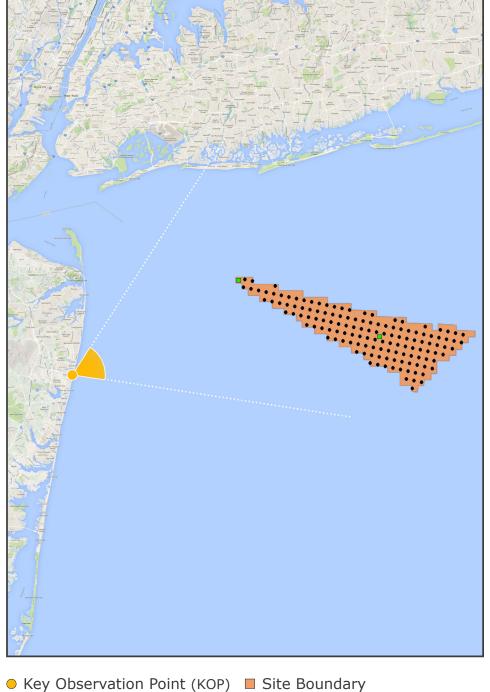
Distance to Nearest Turbine (NM):	20.0
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

#### **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

#### Scale bar to be 4 inches wide (102 mm)

### **Context Map**







For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

This simulation illustrates a hypothetical project and does not represent an actual or proposed project. Adherence to the viewing instructions provided on this page is necessary to ensure that the images are accurately portrayed.

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SIMULATION OF PROJECT: WIREFRAME (SUMMER / MORNING)

# **Truescape**®

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)



## **Truescape**®

KOP: Asbury Park

Season: Summer Time of Day: Midday

#### **Base Photographic Documentation**

Date (MM/DD/YYYY):	9/5/2014
Time (24hr):	11:18
GPS Longitude:	-73.998334
GPS Latitude:	40.224404
Viewpoint Elevation (ft):	19.14
Camera Height (ft):	5.41
Camera Heading (°):	65

#### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:

Camera Sensor Size:

36mm x 24mm

Lens Make & Model:

EF28mm f/1.8 USM

Lens Focal Length:

28mm

Field of View:

65.47° (H) / 46.397° (V)

#### **Sun And Weather Information**

Sun Azimuth:	140.6828919
Sun Elevation:	50.08903177
Lighting Angle (On Turbines):	Back-Lit
Weather Conditions:	Partly-Cloudy
Maximum Visibility (NM):	15.9
Average Predicted Visibility (NM):	16.3
Wave Height (ft):	0.8
Period (Seconds):	8
Temperature (°F):	79
Temperature (°C):	26
Humidity (%):	74

#### **Image Preview**



#### **Turbine Information**

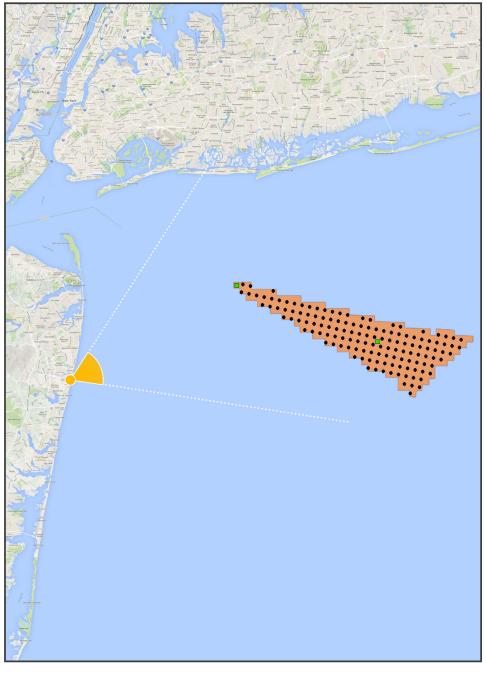
Distance to Nearest Turbine (NM):	20.0
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

#### **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

### Scale bar to be 4 inches wide (102 mm)

#### **Context Map**



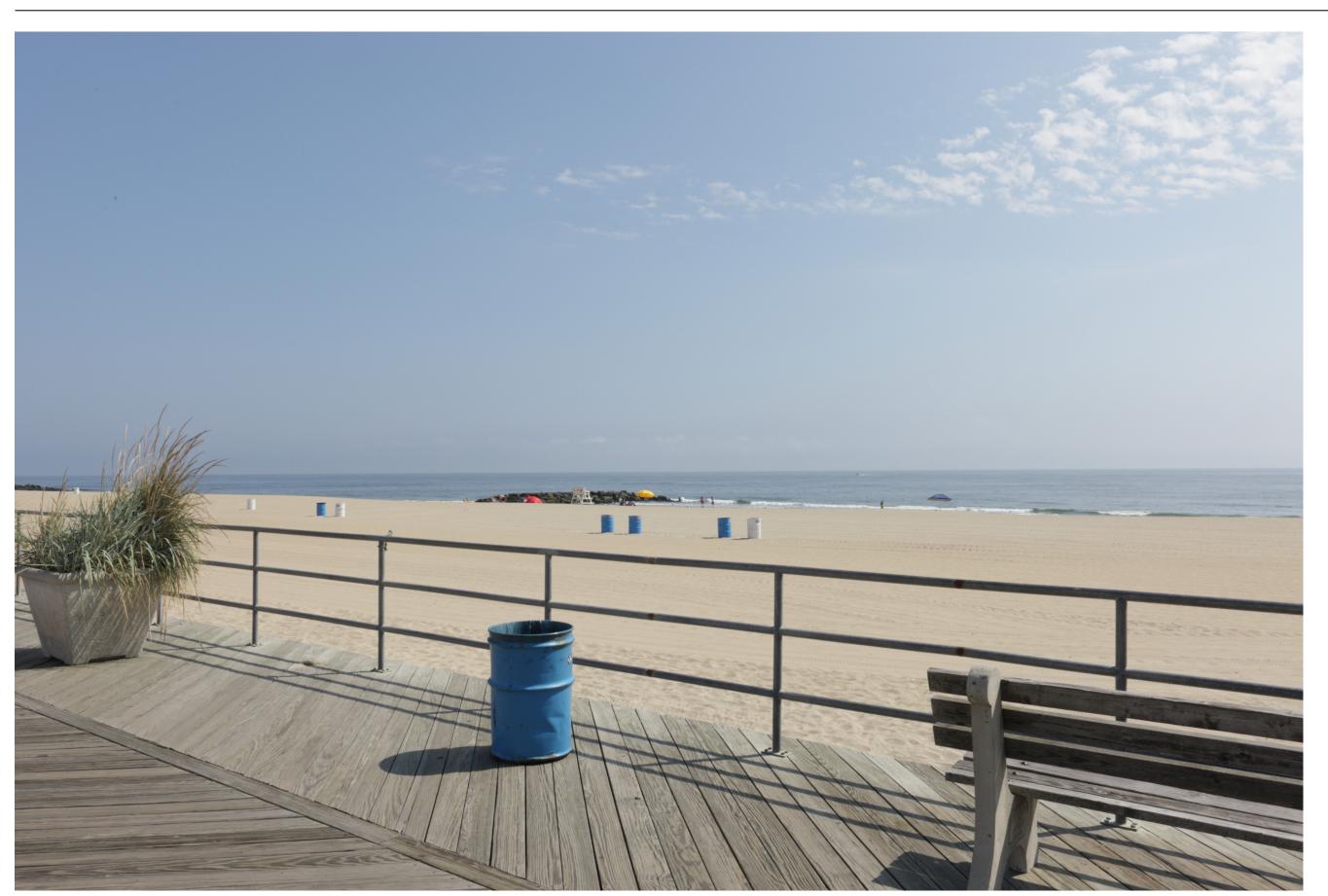
This simulation illustrates a hypothetical project and does not represent an actual or proposed project. Adherence to the viewing instructions provided on this page is necessary to ensure that the images are accurately portrayed.

# **Truescape**®

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

This simulation illustrates a hypothetical project and does not represent an actual or proposed project. Adherence to the viewing instructions provided on this page is necessary to ensure that the images are accurately portrayed.

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)



SIMULATION OF PROJECT: WIREFRAME (SUMMER / MIDDAY)

# **Truescape**®

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm)

This simulation illustrates a hypothetical project and does not represent an actual or proposed project. Adherence to the viewing instructions provided on this page is necessary to ensure that the images are accurately portrayed.



## **Truescape**®

KOP: Asbury Park

Season: Summer Time of Day: Afternoon

#### **Base Photographic Documentation**

Date (MM/DD/YYYY):	8/28/2014
Time (24hr):	15:29
GPS Longitude:	-73.998334
GPS Latitude:	40.224404
Viewpoint Elevation (ft):	0.00
Camera Height (ft):	5.41
Camera Heading (°):	66

#### **Camera Information**

**Viewing Instructions** 

Camera Make & Model:

Camera Sensor Size:

36mm x 24mm

Lens Make & Model:

EF28mm f/1.8 USM

Lens Focal Length:

28mm

Field of View:

65.47° (H) / 46.397° (V)

#### **Sun And Weather Information**

Sun Azimuth: Sun Elevation: Lighting Angle (On Turbines):	238.2287833 44.46624823 Front-Lit
Weather Conditions:	Clear
Maximum Visibility (NM):	26.4
Average Predicted Visibility (NM):	16.3
Wave Height (ft):	4.5
Period (Seconds):	13
Temperature (°F):	77
Temperature (°C):	25
Humidity (%):	39

#### **Image Preview**



#### **Turbine Information**

Distance to Nearest Turbine (NM):	20.0
Make & Model:	Senvion 6.2M 152
Number of Turbines:	134
Hub Height (ft):	328.1
Support Structure Height (ft):	25
Rotor Diameter (ft):	498.7
Total Height to Tip of Blade (ft):	577.4
Service Platform:	100ft x 200ft Steel Platform,
	40ft above MWS

#### **Scale Bar**

For 11 x 17 inch Printed Display: Viewing distance is 11.2 inches (285 mm) For On-Screen Display: Viewing distance is 11.2 inches (285 mm)

### Scale bar to be 4 inches wide (102 mm)

#### **Context Map**

