Viewing Instructions

If viewed on a computer monitor, use the highest screen resolution.

The simulated image is at the proper perspective when viewed at 23.5" from the eye, or at a distance of approximately twice the image height.

For further details on the Wilmington East wind energy area, and key specifications and assumptions, see the formal report by UNASYS.
Wilmington East Wind Energy Area Specifications

The Wilmington East Wind Energy Area, as defined by the US Department of Interior’s Bureau of Ocean Energy Management (BOEM) as of January 2022, begins about 17 nautical miles from Bald Head Island at its closest point and extends approximately 18 nautical miles in the southeast direction to its furthest point from land. It will contain approximately 25 Outer Continental shelf blocks and covers 133,590 acres.

**Turbines simulated:** GE Haliade-X 13MW

**Height of turbine at nacelle centre:**
524 feet (150 metres) 4Number of wind turbines – 122

**Height at highest point (highest blade tip):**
853 feet (260 metres)

**Rotor diameter:** 722 feet (220 metres)

**Above-water support structure:** Single pole that is 20 feet (6 metres) at the waterline, or as specified for turbine model

**Color of wind turbines:** Off-white (5% grey)
VP1, Image 1: Bald Head Island
Conditions: UV Haze

Date: April 14, 2012

Time of Day: 3 p.m.

Viewpoint Elevation: 16 feet

Camera Height: 5 feet 6 inches

Sun Angle/Azimuth: 247.9 degrees

Lighting Angle: Front lit

Sun Elevation: 44.7 degrees

Observed Weather: Partly cloudy

Lat/long: (33.8579, -78.0026)
VP1, Image 2: Bald Head Island
Conditions: Sunny, clear day

Date: April 14, 2012
Time of Day: 3 p.m.
Viewpoint Elevation: 16 feet
Camera Height: 5 feet 6 inches
Sun Angle/Azimuth: 247.9 degrees
Lighting Angle: Front lit
Sun Elevation: 44.7 degrees
Observed Weather: Partly cloudy
Lat/long: (33.8579 -78.0026)

VIEWPOINT 1
Bald Head Island is the closest point on land to the Wilmington East Field, and the nearest wind turbine generator is 17 nautical miles. The two images are field of view 45 degrees, as illustrated below. The wind farm occupies 41 degrees.
VP2, Image 1: Oak Island
Conditions: UV Haze

Date: April 14, 2012
Time of Day: 6 p.m.
Viewpoint Elevation: 9 feet
Camera Height: 5 feet 6 inches
Sun Angle/Azimuth: 276.5 degrees
Lighting Angle: side lit
Sun Elevation: 8.1 degrees
Observed Weather: Partly cloudy
Lat/long: (33.91384 -78.1612)

VIEWPOINT 2
The two images contain field of view 37 degrees, as below. The wind farm occupies 30 degrees
VP2, Image 2: Oak Island
Conditions: Clear, sunny day

Date: April 14, 2012
Time of Day: 6 p.m.
Viewpoint Elevation: 9 feet
Camera Height: 5 feet 6 inches
Sun Angle/Azimuth: 276.5 degrees
Lighting Angle: side lit
Sun Elevation: 8.1 degrees
Observed Weather: Partly cloudy
Lat/long: (33.91384 -78.1612)
VP3, Image 1: Holden Beach
Conditions: UV Haze

Date: April 13, 2012
Time of Day: 6 p.m.
Viewpoint Elevation: 6 feet
Camera Height: 5 feet 6 inches
Sun Angle/Azimuth: 276 degrees
Lighting Angle: side lit
Sun Elevation: 8.1 degrees
Observed Weather: Partly cloudy
Lat/long: (33.9100 -78.3042)

There are two daytime images and one night time image. The field of view is 37 degrees, as below. The wind farm occupies 24 degrees.
VP3, Image 2: Holden Beach
Conditions: Clear, sunny day

Date: April 13, 2012
Time of Day: 6 p.m.
Viewpoint Elevation: 6 feet
Camera Height: 5 feet 6 inches
Sun Angle/Azimuth: 276 degrees
Lighting Angle: side lit
Sun Elevation: 8.1 degrees
Observed Weather: Partly cloudy
Lat/long: (33.9100 -78.3042)

There are two daytime images and one night time image. The field of view is 37 degrees, as below. The wind farm occupies 24 degrees.
VP3, Image 3: Holden Beach
Conditions: Starlit night, UV Haze

Date: April 14, 2012
Viewpoint Elevation: 9 feet
Camera Height: 5 feet 6 inches
Sun Angle/Azimuth: 276.5 degrees
Lighting Angle: side lit
Sun Elevation: 8.1 degrees
Observed Weather: Partly cloudy
Lat/long: (33.91384 -78.1612)

There are two daytime images and one night time image. The field of view is 37 degrees, as below. The wind farm occupies 24 degrees.