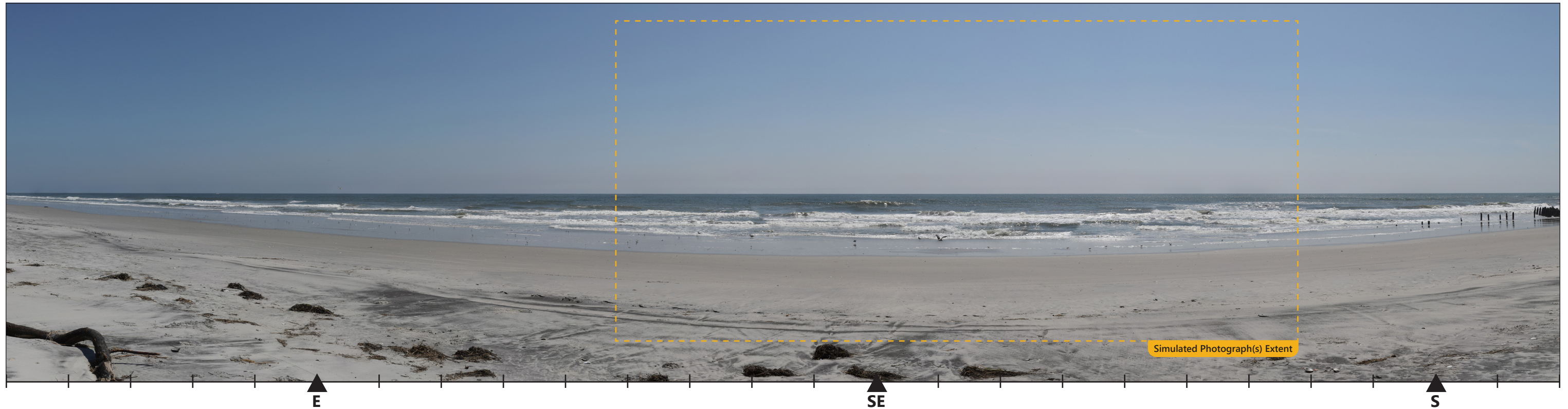
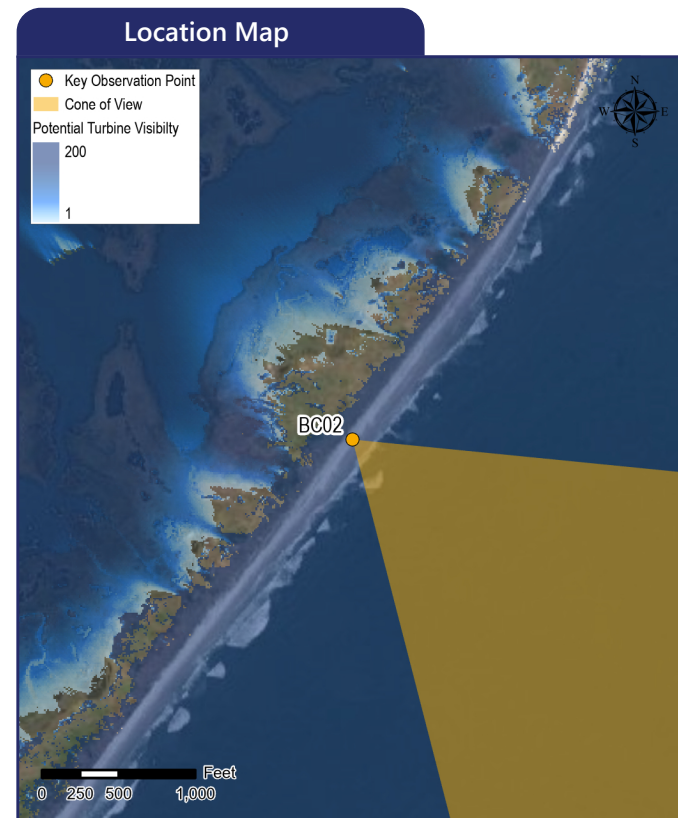
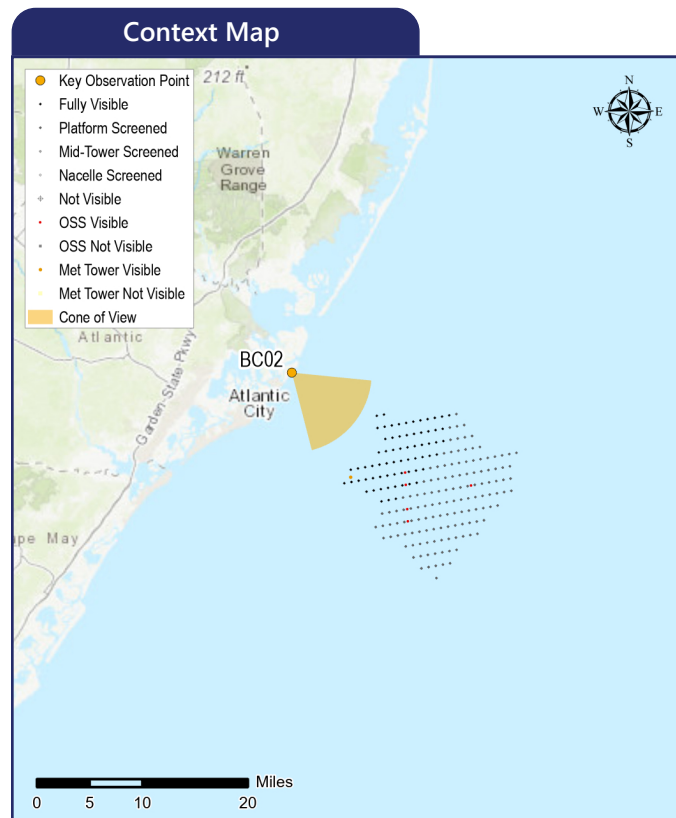


# BC02 North Brigantine Natural Area

Brigantine City, Atlantic County, New Jersey



The image above is a +/- 124° panorama photograph from the North Brigantine Natural Area, panning clockwise from northeast-east (left) to south (right). The yellow rectangle within the photo represents the extent of the photosimulation photo(s).



## Simulation Information

Coordinates: 39.42954°N, 74.33968°W  
 Character Area: Undeveloped Beach, Seascape (SCA)  
 User Group: Residents/Tourists, Fishermen  
 Direction of View: Southeast  
 Distance to Nearest Visible Turbine: 9.03 miles  
 Visually Sensitive Resource: North Brigantine State Natural Area

## Environmental Information

Date Taken: 08/18/2020  
 Time: 12:00 PM  
 Temperature: 84°F  
 Humidity: 53%  
 Visibility: 10 miles  
 Wind Direction: West-southwest  
 Wind Speed: 3 mph  
 Conditions Observed: Fair

## Photograph Information

Camera: Canon EOS 5D Mark IV  
 Resolution: 30.4 Megapixels  
 Focal Length: 50mm  
 Camera Height: 11.06 feet AMSL

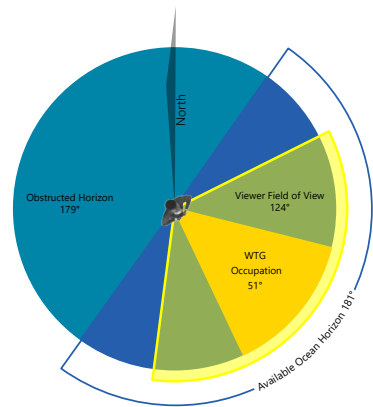
## Notes

Printed at 100%, the photosimulations are 15 inches wide by 10 inches high. At this size, the photosimulation(s) should be viewed from a distance of 21 inches.

## Simulated Photograph(s)

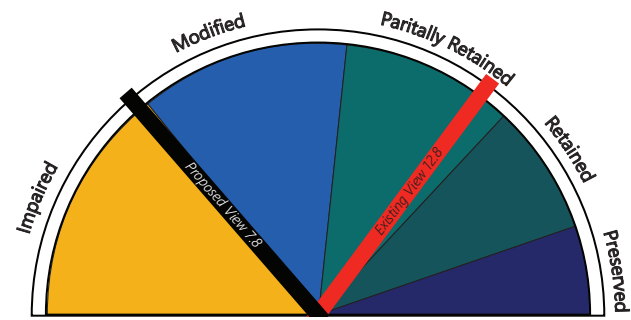


## Field of View



## Visual Impact Rating

### Impact Rating Summary



**-4.9. Significant**

## Visual Threshold Level (VTL)

**6** An object/phenomenon with strong visual contrasts that is so large that it occupies most of the visual field, and views of it cannot be avoided except by turning one's head more than 45 degrees from a direct view of the object. The object/phenomenon is the major focus of visual attention, and its large apparent size is a major factor in its view dominance. In addition to size, contrasts in form, line, color, and texture, bright light sources and moving objects associated with the study subject may contribute substantially to drawing viewer attention. The visual prominence of the study subject detracts noticeably from views of other landscape/seascape elements (Sullivan et al., 2013).

## Principles of Composition and Factors Affecting Visual Impact Summary

Design Elements	Description
Focal Point	The crisp horizon line acts as a focal point in this view.
Order	The open water view which meets the horizon and skyline create a natural order.
Visual Clutter	No visual clutter observed.
Movement	Waves and wildlife likely to be the main source of movement.
Duration & Frequency of View	Short Term/Fleeting   Occasional
Atmospheric Conditions	Sky and atmosphere are both clear, as evidenced by a distant sailboat; Hazy or overcast conditions would reduce visibility.
Lighting Direction	Backlit
Scenic or Recreational Value	The North Brigantine Natural Area is utilized for enjoyment of the natural landscape including fishing, beach combing, and swimming.

## Compatibility and Contrast Rating Average

North Brigantine Natural Area			
Resource	Compatibility	Scale	Spatial Dominance
Water Resources	3.0	3.0	3.0
Landform	2.5	2.3	2.5
Vegetation	0.0	0.0	0.0
Land Use	2.5	2.8	2.3
User Activity	2.8	3.0	2.8

1 – Compatible  
 2 – Somewhat Compatible  
 3 – Not Compatible  
 1 – Minimal  
 2 – Moderate  
 3 – Severe  
 1 – Subordinate  
 2 – Co-Dominant  
 3 – Dominant

## Existing Conditions

Scenic Quality: Partially Retained  
 Rating Panel Score Average: 12.8  
 Rating Panel Score Range: 13.8 - 11.2

This view is from the North Brigantine State Natural Area, between developed portions of the City of Brigantine, New Jersey and Brigantine Inlet. The North Brigantine Natural Area was acquired by the state in 1967 and is managed by the New Jersey Department of Environmental Protection. The purpose of the State's Natural Areas System is to protect and preserve ecologically significant lands and resources found on them, including endangered and threatened wildlife and important vegetative communities. The North Brigantine Natural area is part of the longest stretch of undeveloped barrier island beach along the New Jersey coast. It includes approximately 2.5 miles of undeveloped beach, along with coastal dunes, maritime forest and tidal marsh, that provide habitat for several rare species of birds and plants. It is used by the public for bird watching, walking, jogging, sunbathing, and surf fishing.

The view to the southeast from this location includes an undeveloped sandy beach at low tide. An expanse of relatively level exposed sand extends from the wrack line in the immediate foreground to a line of breaking waves in the middle ground. Shorebirds can be seen on the beach at the water's edge. Beyond the surf line, the dark blue grey ocean extends without interruption to the horizon line where it meets the light blue sky. The action and texture of the breaking waves in the middle ground contrast with the smoothness of the sand and sky. The existing view lacks any man-made features other than some old pilings at the water's edge outside the selected field of view (to the right). This, along with the lack of people on the beach, gives the view an undeveloped natural character.

Rating panel members indicated that the existing view is a relatively pristine water view with a clean simple organization of line in form, that lacks strong focal points. Waves and bird activity at the shoreline may draw some viewer attention, but the primary focus is the uninterrupted expanse of open ocean and the distant horizon line. The KOP feels secluded and conveys a sense of isolation and privacy. Rating panel scores for the existing conditions photographs ranged from 13.8 to 11.2 (average score = 12.8). The rating panel score for this KOP indicates that this view is partially retained.

## Proposed Conditions

Scenic Quality: Modified  
 Rating Panel Score Average: 7.8  
 Rating Panel Score Range: 5.5 - 9.5  
 Impact Magnitude: 4.9 (Significant)

Viewshed analysis suggests that Project visibility from this general area will be available along the beach, but partially blocked in the dunes behind it. Views again become available as one heads into the open salt marsh to the west (inland) of the dunes.

With the proposed Project in place, the view is dominated by a large and highly visible array of WTGs that extend across a large portion of the ocean view to the southeast from this location. Of the 232 degrees of relatively unobstructed ocean horizon, the Project occupies approximately 50 degrees or 22 percent of the view (see Field of View Image, left). Project visibility is enhanced by the relative proximity of the WTGs (9.03 miles) and lighting conditions that make the WTGs appear relatively dark against the light blue sky. Rating panel members had a somewhat variable range of reactions to the impact resulting from the Project WTGs, with the VIA scores ranging from 5.5 to 9.5 (average score = 7.8). These scores indicate an average reduction of 4.9 points suggesting the view would become modified and significant visual impacts could result from the Projects. Individual rating panel members scores ranged from 1.7 to 7.0. Panel members indicated that the WTG's become dominant elements in the view. They reduce the view's sense of openness and add a large number of built features to what was previously an open, undeveloped ocean view. The presence of the WTGs tends to enclose the view, and adds substantial visual clutter. This effect is enhanced by the transition of the WTGs an orderly arrangement to stacked alignment when the viewer is looking down a row of aligned WTGs, making them appear disorderly. The movement of the rotor blades will also attract viewer attention and make the WTGs the focus of this view. Although the visibility and visual dominance of the WTGs is likely to be reduced under more hazy sky conditions, and when lighting conditions reduce WTG contrast with the sky, proximity of the WTGs will allow them to be visible under most clear sky conditions. With the Project in place, this KOP is modified.

Considering the scale, compatibility, and spatial dominance factors that influenced the visual impact rating at this KOP, panel ratings indicated that the WTGs present severe scale contrast with the ocean (water resources), land use, and user activity. The panel scores also indicate that the WTGs are not compatible with water resource, landform, land use, and user activity. The WTGs would become the dominant feature in the seascape when compared to the existing water resources, landform, and user activity. Consistent with the anticipated compatibility, scale contrast, and spatial dominance impacts associated with the Project, panel members assigned the Project visibility an average VTL of 6 from this KOP.

# BC02 North Brigantine Natural Area

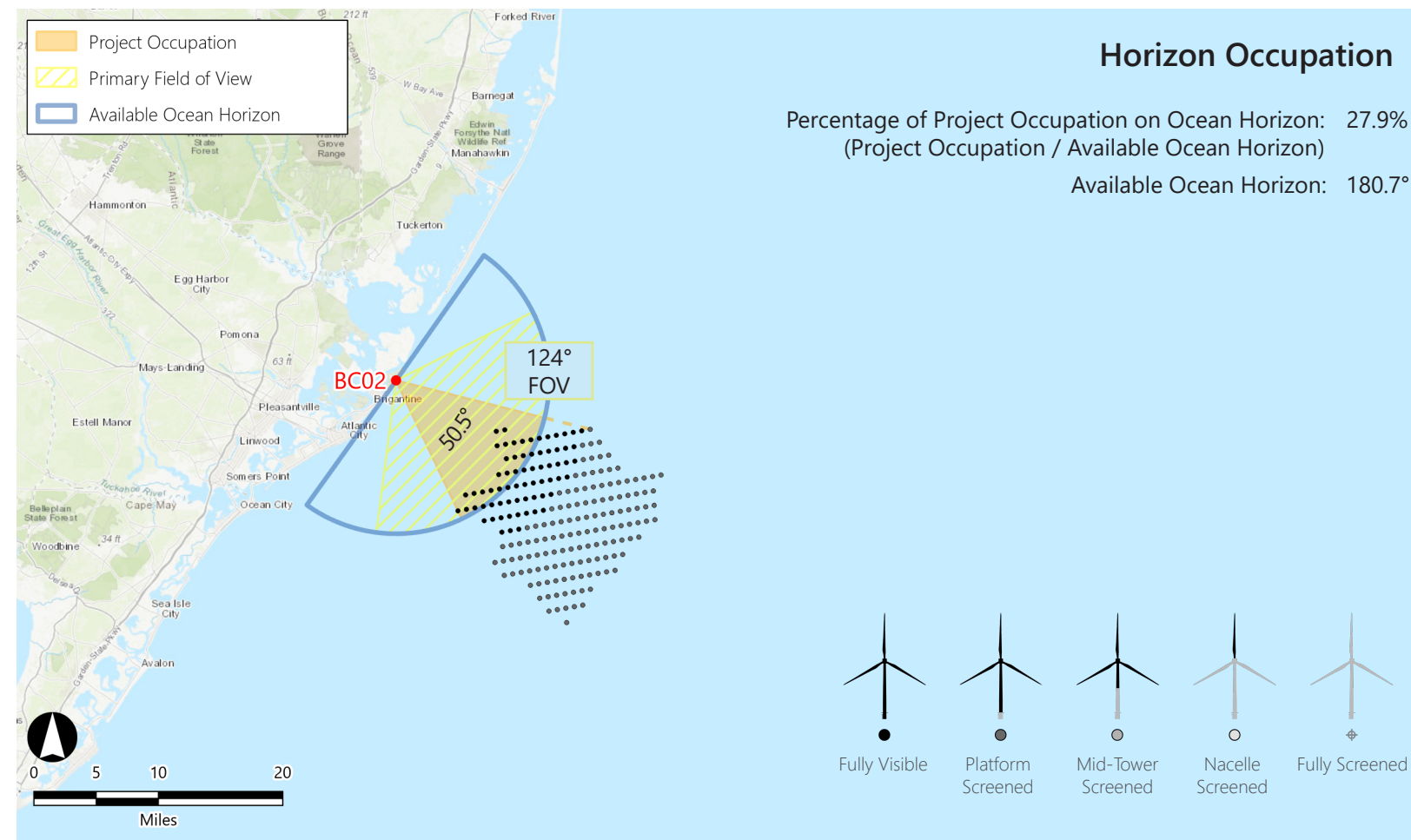
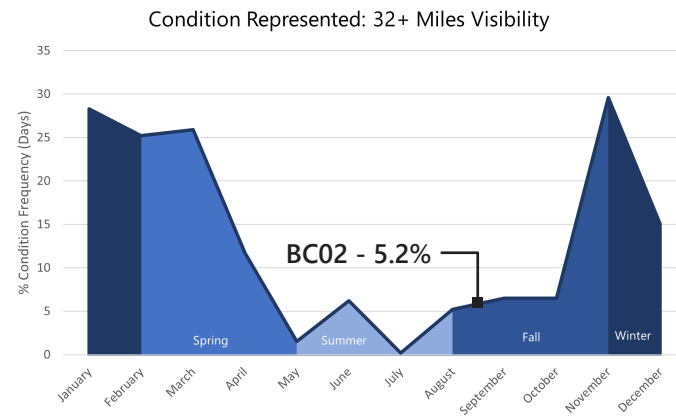
Brigantine City, Atlantic County, New Jersey

## KOP Information

Primary Field of View: East  
 Distance to Closest WTG: 9.03 miles  
 Camera Height: 11.06 ft  
 User Groups: Residents, Tourists, Fishermen

## Atmospheric Perspective

The effect the atmosphere has on the appearance of an object as viewed from a distance.



## WTG Color Contrast

Color Contrast Rating: 2.55

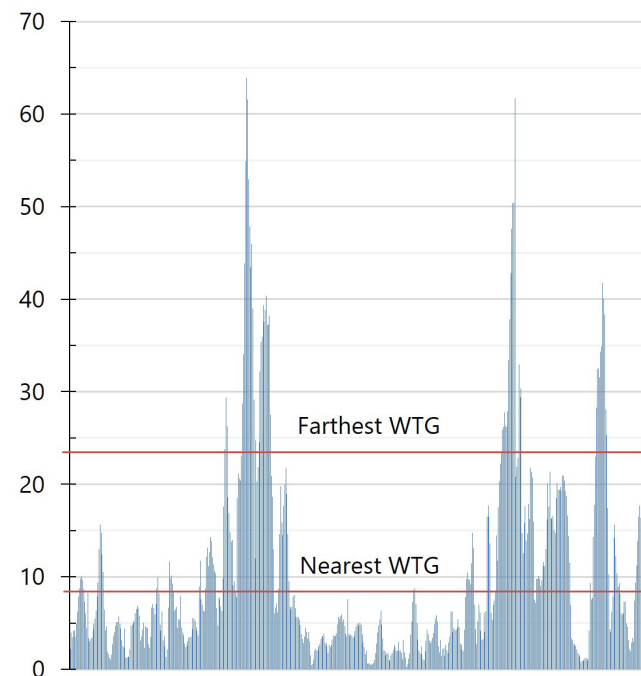
Turbine  
 Background

Lighting Condition: Side lit  
 Season: Summer  
 Sky Condition: Fair  
 Atmospheric Condition: > 10 Miles

## SIMILAR VIEWING PARAMETERS:

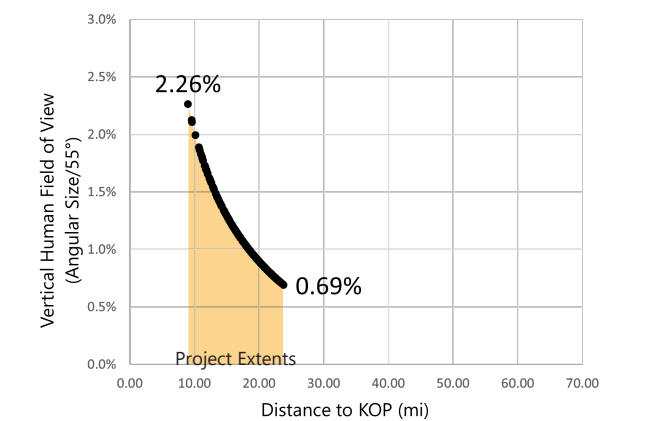
KOP LEHT02 illustrates the project from 11.91 miles in the back lit condition. This provides an indication of how the turbines may appear from this KOP during morning conditions.

August, 2019 - Hourly Visibility Distance



## Vertical Occupation

Percentage of Human FOV: 2.26% (1.24° / 55°)  
 (Considering the nearest visible turbine)



Existing Conditions



Printed at 100% the resulting photosimulation size is 15 inches wide by 10 inches high. At this size and focal length, the photosimulation should be viewed from a distance of 21 inches.



This scale is designed to insure the photosimulation images are printed at the intended size.

Photosimulation



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