

SCENARIO 3 INTERVISIBILITY ASSESSMENT FROM KEY OBSERVATION POINT

Development	Minimum Distance from KOP to Turbines (mi)	Maximum Blade Height of Nearest Turbine (Feet)	Visibility Status This Scenario
Maryland Offshore Wind Project, OCS-A 0490	33.6	938	Visible
Skipjack, OCS-A 0519	23.1	853	Visible
Garden State Offshore Wind, OCS-A 0482	15.9	853	Visible
Ocean Wind 2, OCS-A 0532	25.9	906	Visible
Ocean Wind 1, OCS-A 0498	33.8	906	Visible
Atlantic Shores South, OCS-A 0499	45	1049	Visible
Atlantic Shores North, OCS-A 0549	55.7	1049	Visible
Coastal Virginia Offshore Wind (C-Lease), OCS-A 0483	134.6	869	Developed But Beyond Visible Distance
Coastal Virginia Offshore Wind (Research Lease), OCS-A 0497	143.4	607	Developed But Beyond Visible Distance
Atlantic Shores Offshore Wind Bight (NY Bight), OCS-A 0541	73.2	853	Developed But Beyond Visible Distance
Invenergy Wind Offshore (NY Bight), OCS-A 0542	74.3	853	Developed But Beyond Visible Distance

Information on the neighboring offshore development projects is based on the most current information available.



¹ "The Best Paper Format and Viewing Distance to Represent the Scope and Scale of Visual Impacts", Journal of Landscape Architecture, 4-2019, pp. 142-151, J. Palmer
² Sheppard, S. 1989. Visual Simulation: A User's Guide for Architects, Engineers, and Planners. New York: Van Nostrand Rheinhold.

The Maryland Offshore Wind Project will either use two large OSSs only at interior locations within the array or four small OSSs throughout the array. For the purpose of the simulations, the largest OSS that may be used at a particular location has been simulated.

SITE INFORMATION

Site Name: Cape May Lighthouse
 Location: Cape May Point, NJ
 Date: 3/25/2023
 Time: 12:20 PM
 Coordinates (Lat/Lon WGS84): 38.931, -74.958
 Landscape Zone: Barren Land (Rock/Sand/Clay) - Beach

CUMULATIVE VISUAL EFFECTS SCENARIOS (CURRENT IS BOLD)

Scenario 1, Pre-Buildout of Maryland Offshore Wind Project
 Scenario 2, Maryland Offshore Wind Project and Projects Already or Considered Constructed
Scenario 3, Project Construction by 2030
 Scenario 4, Project Construction by 2030 Without Maryland Offshore Wind Project
 Scenario 5, Maryland Wind Without Other Foreseeable Future Changes

SCENARIO DESCRIPTION AND ASSUMPTIONS

In addition to the project conditions from Scenarios 1 and 2 for Coastal Virginia Offshore Wind (Research Lease) OCS-A 0497, Coastal Virginia Offshore Wind (C-Lease) OCS-A 0483, Ocean Wind 1 OCS-A 0498, Atlantic Shores South OCS-A 0499, and Maryland Offshore Wind Project OCS-A 0490, Scenario 3 depicts all projects scheduled for construction after the Maryland Offshore Wind Project through 2030 with the addition of Atlantic Shores North OCS-A 0549, Ocean Wind 2 OCS-A 0532, Garden State Offshore Wind OCS-A 0482, Skipjack OCS-A 0519, Atlantic Shores Offshore Wind Bight (NY Bight) OCS-A 0541, and Invenergy Wind Offshore (NY Bight) OCS-A 0542. The simulations produced for Scenario 3 visualize all such projects that are determined by the intervisibility assessment to be visible from KOP 24, Cape May Lighthouse.

All simulated WTGs use monopile foundation structures, and all are oriented in the same direction with the centermost WTG facing directly towards the camera. The simulated WTGs use RAL 9010 Pure White paint color and the same lighting scheme that was outlined in US Wind's Visual Impact Assessment. As a point of reference, a 1049' tall structure drops completely below the horizon at a distance of 58.0 statute miles from a camera height above ground with an elevation of 153.8' at this KOP.

SHEET INDEX AND VIEWING INSTRUCTIONS

- Sheet 1 – Simulation Context and Intervisibility Assessment
- Sheet 2 – Project Development and Visibility Summary
- Sheet 3 – Existing Conditions Panorama View (124°)
- Sheet 4 – Panorama View (124°) with Simulations without Project Extents
- Sheet 5 – Panorama View (124°) with Simulations and Project Extents
- Sheet 6 – Single Frame (50-mm Lens) Simulation, Left View and Project Extents
- Sheet 7 – Single Frame (50-mm Lens) Simulation, Right View and Project Extents

To approximate the field of view represented by a 16.5" panorama it should be printed on an 11" x 17" sheet of paper and viewed from 8 inches away¹. For the most realistic experience when viewing in a digital format, position your computer screen 20" away and adjust the PDF viewing software's zoom so that the calibration bar matches what's instructed on the simulation sheet.

In all cases care must be taken to not over or underrepresent the visual contrasts². Typical binocular human field of view is assumed to be 124-degrees horizontal and 55-degrees vertical.

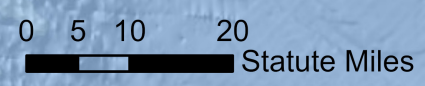
KOP 24 CAPE MAY LIGHTHOUSE, NEW JERSEY
 Maryland Offshore Wind Project Cumulative Visual Effects Assessment Simulations
 Scenario 3, Project Construction by 2030

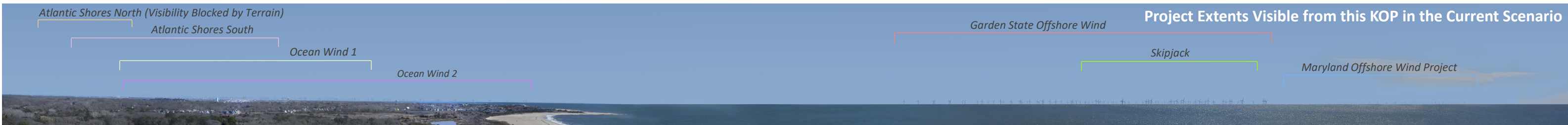
SHEET 1 - SIMULATION CONTEXT AND INTERVISIBILITY ASSESSMENT



OCS-A 0483, OCS-A 0497, OCS-A 0541, and OCS-A 0542 are located beyond the extent of this map. These lease areas are determined by the Intervisibility Assessment to be beyond visible distance from the KOP. See the Intervisibility Assessment table on this sheet for more details.

★ Current KOP Simulation	● Blades Visible
▲ KOP Location	▲ Blades and Nacelle Visible
Horizontal Field of View (HFOV) (124°)	◆ Blades, Nacelle, and Tower Visible
--- Limit of Visibility	⊕ OSS Visible
	⚡ WTG Not Visible
	⚡ OSS Not Visible



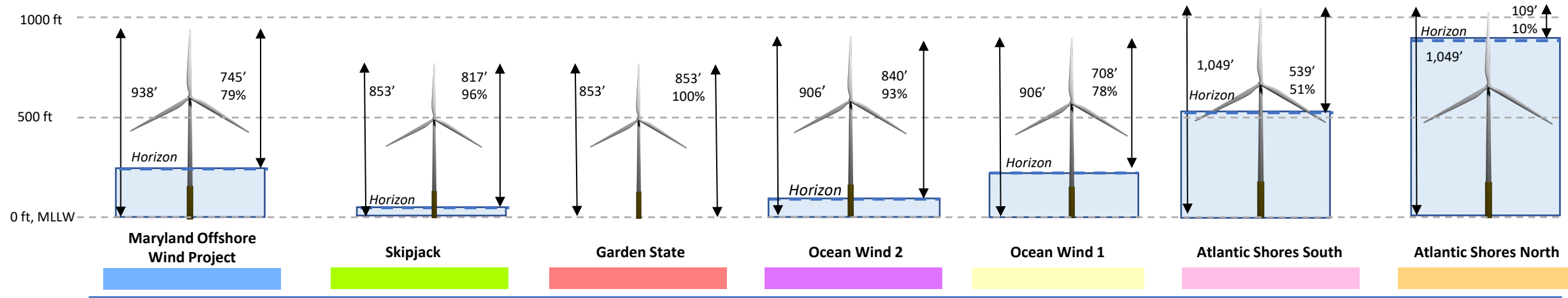


Scenario 3 Visibility of Nearest Turbine to Key Observation Point



Based on findings from the Intervisibility Assessment the following developments are excluded from this visibility matrix due to their distance from the key observation point:

- Coastal Virginia Offshore Wind (C-Lease) OCS-A 0483
- Coastal Virginia Offshore Wind (Research Lease) OCS-A 0497
- Atlantic Shores Offshore Wind Bight (NY Bight) OCS-A 0541
- Invenergy Wind Offshore (NY Bight) OCS-A 0542

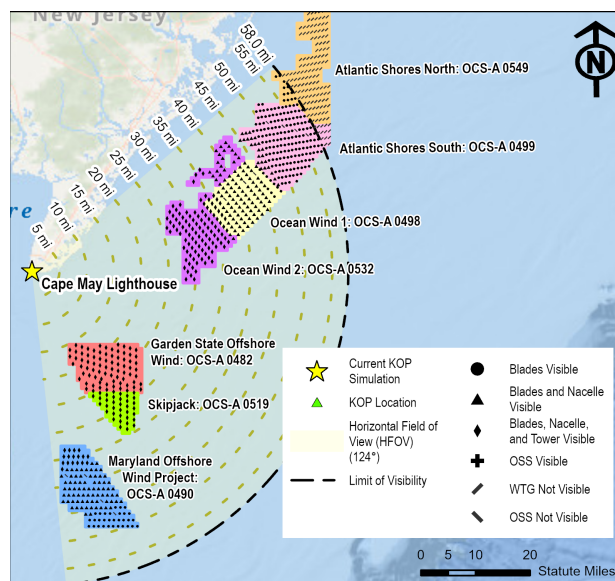


	Visible	Visible	Visible	Visible	Visible	Visible	Visibility Blocked by Terrain
# Turbines	121	33	80	111	108	201	147
# Turbines Visible	121	33	80	111	108	184	15
# Nacelle FAA Lights Visible	90	33	80	111	98	24	0
# Mid-Tower FAA Lights Visible	17	33	80	91	17	0	0
# Substations*	4	0	0	0	3	4	0
# Substations Visible	0	0	0	0	0	0	0
Minimum Distance from KOP to Turbines (mi)	33.6	23.1	15.9	25.9	33.8	45.0	55.7
Maximum Distance from KOP to Turbines (mi)	50.8	34.1	27.2	43.2	47.9	60.7	74.7
Nearest Turbine – Vertical Extent of Turbine Visible (ft)	745	817	853	840	708	539	109
Farthest Turbine – Vertical Extent of Turbine Visible (ft)	212	649	770	458	296	8	3
Nearest Turbine – Vertical Extent of Turbine Visible (%)	79%	96%	100%	93%	78%	51%	10%
Farthest Turbine – Vertical Extent of Turbine Visible (%)	23%	76%	90%	51%	33%	1%	0%
Mid-Tower FAA Light Height (ft)	271	253	253	263	263	304	304
Hub Height (ft)	528	492	492	512	512	590	590
Nacelle Top FAA Light Height (ft)	542	506	506	525	525	608	608
Blade Tip Height (ft)	938	853	853	906	906	1049	1049
Rotor Diameter (ft)	820	722	722	788	788	918.6	918.6

*The Maryland Offshore Wind Project will either use two large OSSs only at interior locations within the array or four small OSSs throughout the array. For the purpose of the simulations, the largest OSS that may be used at a particular location has been simulated.

Information on the neighboring offshore development projects is based on the most current information available.





ENVIRONMENT	
Weather Conditions:	Clear/Calm
Temperature:	54° F
Humidity:	49%
Lighting Conditions:	Clear/Sunny
Visibility:	10 Miles
VIEW AND CAMERA DETAILS	
Ground Elevation (ft msl):	148.3
Camera/Viewing Elevation (ft msl):	153.3
Camera Used for Simulation Photography:	Nikon D850
Camera Lens Brand, Type, Focal Length:	Nikon Fixed 50 mm
Photo Resolution:	1200 DPI
Horizontal Field of View (Panoramas):	124°
Horizontal Field of View (Single Frame 50 mm Lens):	39.6°
Atmospheric Refraction Coefficient (k):	0.143

VIEWING INSTRUCTIONS: To approximate the field of view represented by a 16.5" panorama simulation, it should be printed on an 11" x 17" sheet of paper and viewed from 8 inches away¹. For the most realistic experience when viewing in a digital format, position your computer screen 20" away and adjust the PDF viewing software's zoom so that the calibration bar is 1 inch long:

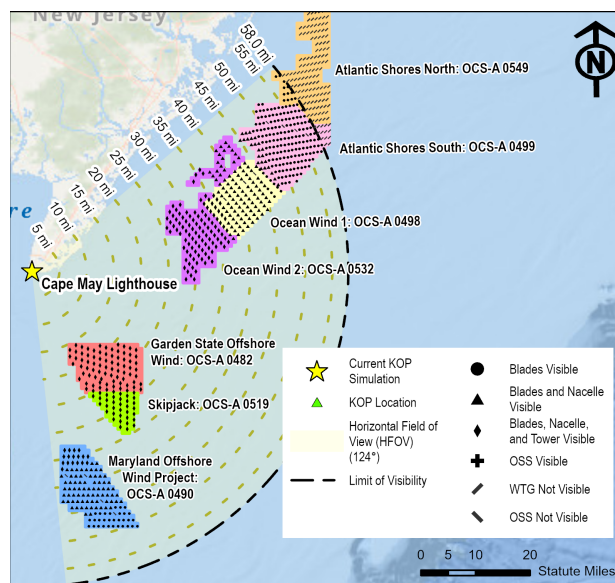
1" Measured On Screen – View from 20" Away

In all cases care must be taken to not over or underrepresent the visual contrasts². Typical binocular human field of view is assumed to be 124-degrees horizontal and 55-degrees vertical. See Sheet 1 for citations.

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Maryland Offshore Wind Project Cumulative Visual Effects Assessment Simulations
Scenario 3, Project Construction by 2030

SHEET 3 - EXISTING CONDITIONS PANORAMA VIEW (124°)





ENVIRONMENT	
Weather Conditions:	Clear/Calm
Temperature:	54° F
Humidity:	49%
Lighting Conditions:	Clear/Sunny
Visibility:	10 Miles
VIEW AND CAMERA DETAILS	
Ground Elevation (ft msl):	148.3
Camera/Viewing Elevation (ft msl):	153.3
Camera Used for Simulation Photography:	Nikon D850
Camera Lens Brand, Type, Focal Length:	Nikon Fixed 50 mm
Photo Resolution:	1200 DPI
Horizontal Field of View (Panoramas):	124°
Horizontal Field of View (Single Frame 50 mm Lens):	39.6°
Atmospheric Refraction Coefficient (k):	0.143

VIEWING INSTRUCTIONS: To approximate the field of view represented by a 16.5" panorama simulation, it should be printed on an 11" x 17" sheet of paper and viewed from 8 inches away¹. For the most realistic experience when viewing in a digital format, position your computer screen 20" away and adjust the PDF viewing software's zoom so that the calibration bar is 1 inch long:

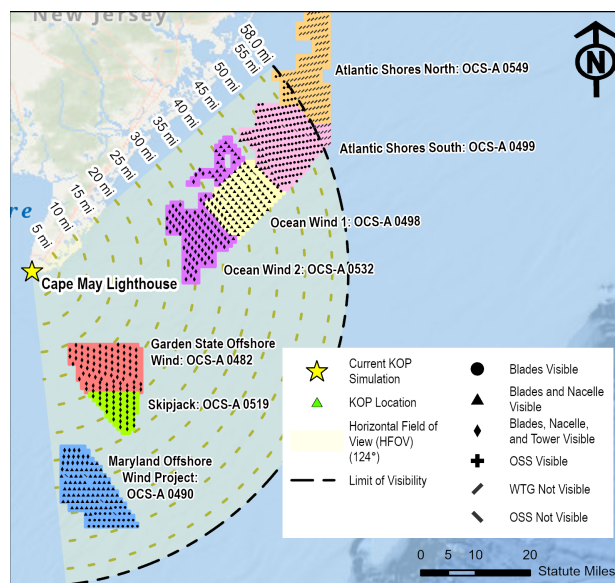
1" Measured On Screen – View from 20" Away

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SHEET 4 - PANORAMA VIEW (124°) WITH SIMULATIONS WITHOUT PROJECT EXTENTS





ENVIRONMENT	
Weather Conditions:	Clear/Calm
Temperature:	54° F
Humidity:	49%
Lighting Conditions:	Clear/Sunny
Visibility:	10 Miles
VIEW AND CAMERA DETAILS	
Ground Elevation (ft msl):	148.3
Camera/Viewing Elevation (ft msl):	153.3
Camera Used for Simulation Photography:	Nikon D850
Camera Lens Brand, Type, Focal Length:	Nikon Fixed 50 mm
Photo Resolution:	1200 DPI
Horizontal Field of View (Panoramas):	124°
Horizontal Field of View (Single Frame 50 mm Lens):	39.6°
Atmospheric Refraction Coefficient (k):	0.143

VIEWING INSTRUCTIONS: To approximate the field of view represented by a 16.5" panorama simulation, it should be printed on an 11" x 17" sheet of paper and viewed from 8 inches away¹. For the most realistic experience when viewing in a digital format, position your computer screen 20" away and adjust the PDF viewing software's zoom so that the calibration bar is 1 inch long:

1" Measured On Screen – View from 20" Away

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SHEET 5 – PANORAMA VIEW (124°) WITH SIMULATIONS AND

PROJECT EXTENTS

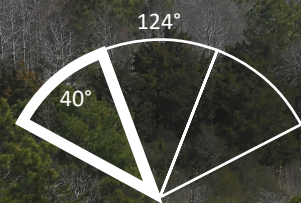


*Atlantic Shores North
(Visibility Blocked by Terrain)*

Atlantic Shores South

Ocean Wind 1

Ocean Wind 2



Graphic shows which specific portion of the human field of view (124°) is visible in this single frame (40°) photo.

VIEWING INSTRUCTIONS: To approximate the field of view represented by a 15.7" single frame simulation captured with a 50-mm lens it should be printed on an 11" x 17" sheet of paper and viewed from 22 inches away¹. For the most realistic experience when viewing in a digital format, position your computer screen 20" away and adjust the PDF viewing software's zoom so that the calibration bar is 1 inch long:

1" Measured On Screen – View from 20" Away

In all cases care must be taken to not over or underrepresent the visual contrasts². Typical binocular human field of view is assumed to be 124-degrees horizontal and 55-degrees vertical. See Sheet 1 for citations.

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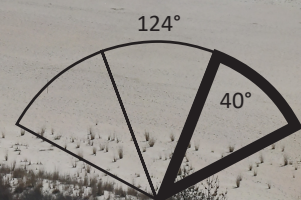
SHEET 6 - SINGLE FRAME (50-mm LENS) SIMULATION, LEFT VIEW AND PROJECT EXTENTS



Garden State Offshore Wind

Skipjack

Maryland Offshore Wind Project



Graphic shows which specific portion of the human field of view (124°) is visible in this single frame (40°) photo.

VIEWING INSTRUCTIONS: To approximate the field of view represented by a 15.7" single frame simulation captured with a 50-mm lens it should be printed on an 11" x 17" sheet of paper and viewed from 22 inches away¹. For the most realistic experience when viewing in a digital format, position your computer screen 20" away and adjust the PDF viewing software's zoom so that the calibration bar is 1 inch long.

1" Measured On Screen = View from 20" Away

In all cases care must be taken to not over or underrepresent the visual contrasts². Typical binocular human field of view is assumed to be 124-degrees horizontal and 55-degrees vertical. See Sheet 1 for citations.

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SHEET 7 - SINGLE FRAME (50-mm LENS) SIMULATION, RIGHT VIEW AND PROJECT EXTENTS

