VINEYARD VINEYARD

SUBMISSION FOR PURCHASE OF OFFSHORE WIND RENEWABLE ENERGY CERTIFICATES

ORECRFP24-1

PUBLIC

SEPTEMBER 9, 2024

Certain information in this proposal is non-public, proprietary, commercial, and/or financial information ("Confidential Information"), which has been redacted from the version of this proposal marked "PUBLIC." Such Confidential Information has been redacted from this proposal and/or is clearly marked "CONFIDENTIAL." Vineyard Offshore intends for all such Confidential Information to remain confidential. Further, the version of this proposal marked "CONFIDENTIAL" should be treated as a non-public record that is exempt from disclosure under applicable laws and as set forth in the Request for Proposals ORECRFP24-1 Purchase of Offshore Wind Renewable Energy Certificates issued on July 17, 2024 and updated on August 13, 2024.

Section 8.5 Visibility Study

Response to New York State Energy Research and Development Authority Request for Proposals ORECRFP24-1



TABLE OF CONTENTS

SECTION 8	RESPONSIBLE DEVELOPMENT						
8.5	VISIBILITY STUDY						
	8.5.1	Overview			8-1		
	8.5.2	Offshore Wind Generation Facility Site					
		8.5.2.1 Lease Area					
		8.5.2.2	Offshore \	Vind Generation Facility Layout	8-2		
	8.5.3	Visibility Assessments					
		8.5.3.1	Lease Area Visibility Study		8-4		
			8.5.3.1.1	Theoretical Visibility of the WTGs and ESP	8-5		
			8.5.3.1.2	Effects of Meteorological Conditions on			
				Visibility	8-6		
			8.5.3.1.3	Visual Simulations	8-7		
			8.5.3.1.4	Daytime Visibility of the WTGs in the Lease			
				Area	8-8		
			8.5.3.1.5	Visibility of Nighttime Lighting in the Lease			
				Area	8-9		
	8.5.4	Mitigatior	n Measures		8-10		

List of Figures

Figure 8.5-1	Lease Area Distance to Shore
Figure 8.5-2	Excelsior Wind Offshore Wind Generation Facility Layout

List of Tables



List of Attachments

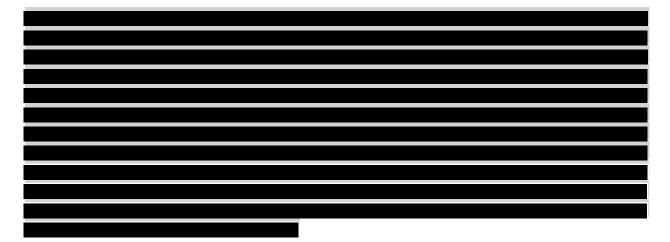


SECTION 8 RESPONSIBLE DEVELOPMENT

8.5 VISIBILITY STUDY

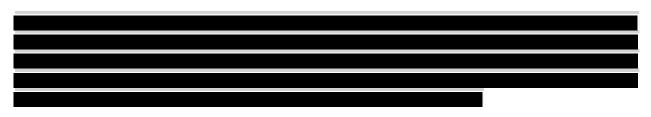
8.5.1 Overview

This section assesses the visibility and potential viewshed impacts of Excelsior Wind (the "Project"), a 1,350 megawatt (MW) Offshore Wind Generation Facility (OWF) that will be installed in Lease Area OCS-A 0544 (the "Lease Area"). The nearest wind turbine generator (WTG) will be more than 24 statute miles from the closest shoreline point in any state.



The location and design of the OWF (as they relate to potential visual impacts) and the results of the Visibility Study are detailed in the sections that follow.

8.5.2 Offshore Wind Generation Facility Site

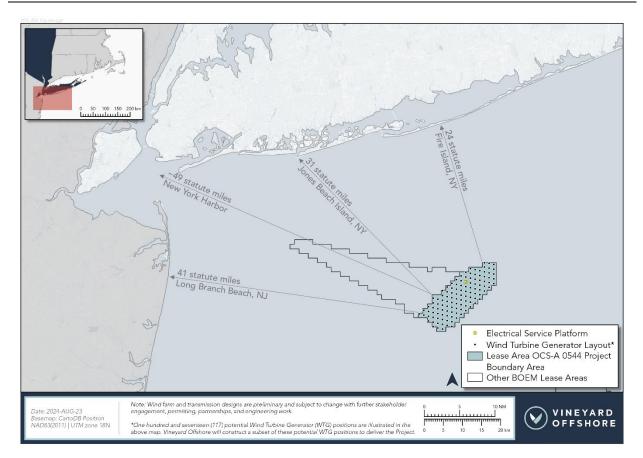


8.5.2.1 Lease Area

The Lease Area is approximately 43,056 acres in size and is located in the open Atlantic Ocean approximately 24 and 41 miles, respectively, from New York and New Jersey's nearest shorelines (see Figure 8.5-1).¹ The Lease Area abuts Empire Wind's Lease Area OCS-A 0512 along its western edge and has water depths between 124 and 154 feet (ft).

¹ Distances to shore are measured from the Lease Area boundary.





Offshore Wind Generation Facility Layout 8.5.2.2



PUBLIC

shoreline point of any state.

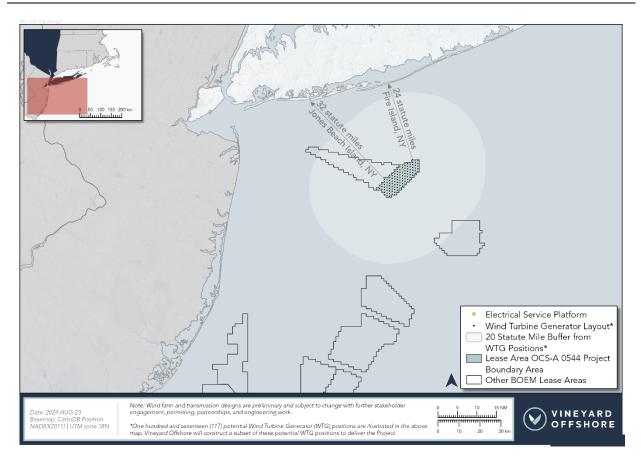
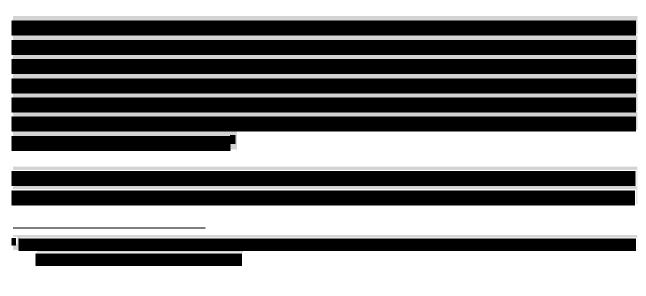


Figure 8.5-2 Excelsior Wind Offshore Wind Generation Facility Layout

8.5.3 Visibility Assessments

In accordance with the requirements of Section 6.2.8.5 of ORECRFP24-1, Vineyard Offshore has assessed the Project's visibility from shore and prepared photo simulations to support the assessment.

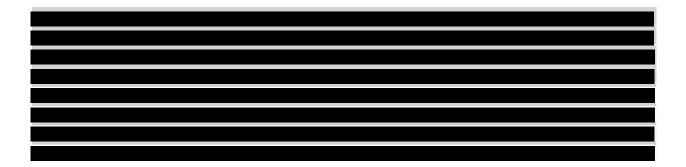


VINEYARD VINEYARD 8-3

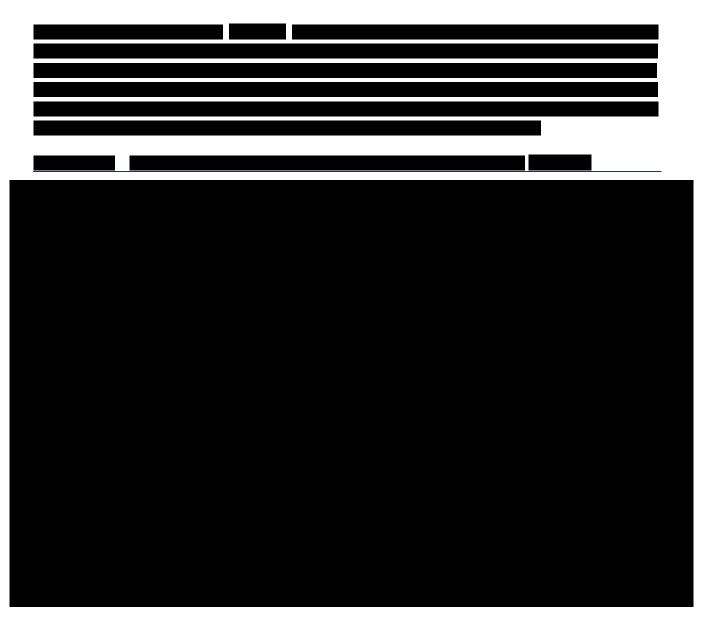
8.5.3.1 Lease Area Visibility Study







8.5.3.1.1 <u>Theoretical Visibility of the WTGs and ESP</u>



8.5.3.1.2 Effects of Meteorological Conditions on Visibility



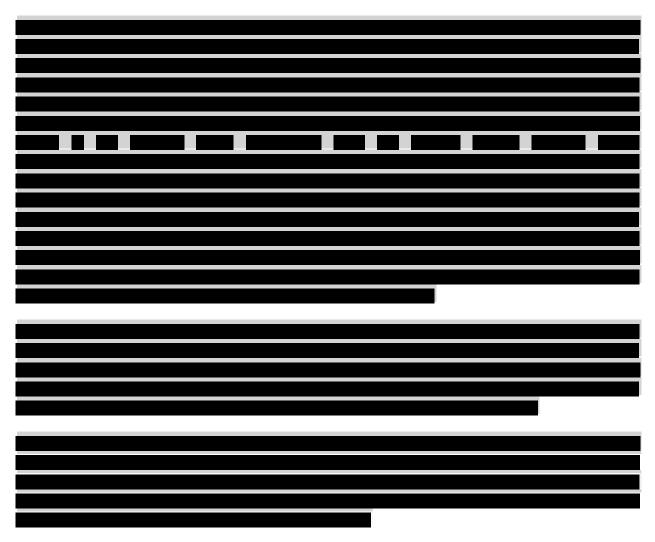
8.5.3.1.3 <u>Visual Simulations</u>



VINEYARD VINEYARD 8-7

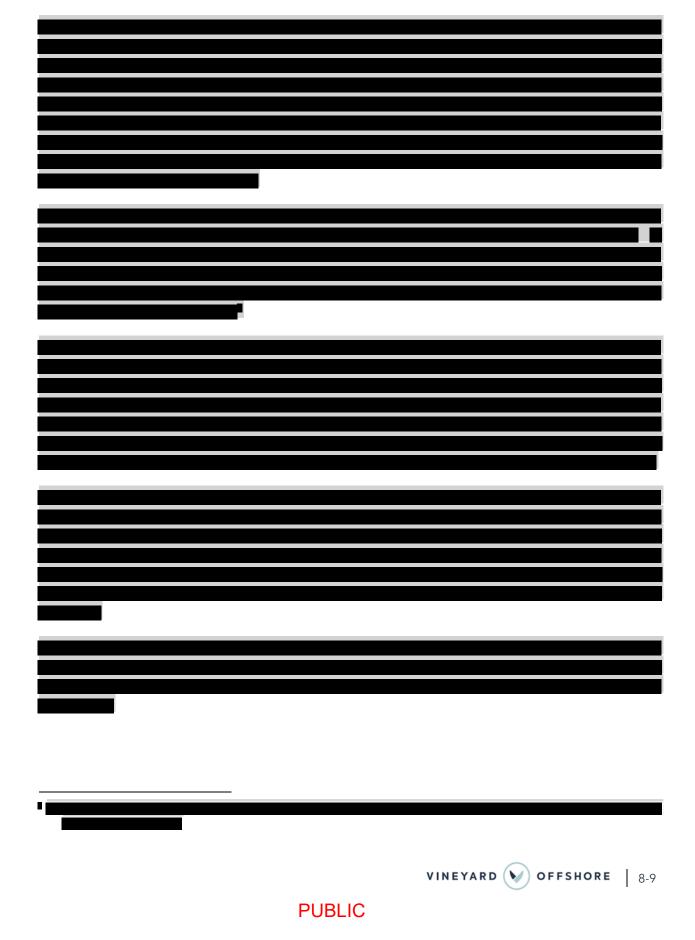


8.5.3.1.4 Daytime Visibility of the WTGs in the Lease Area

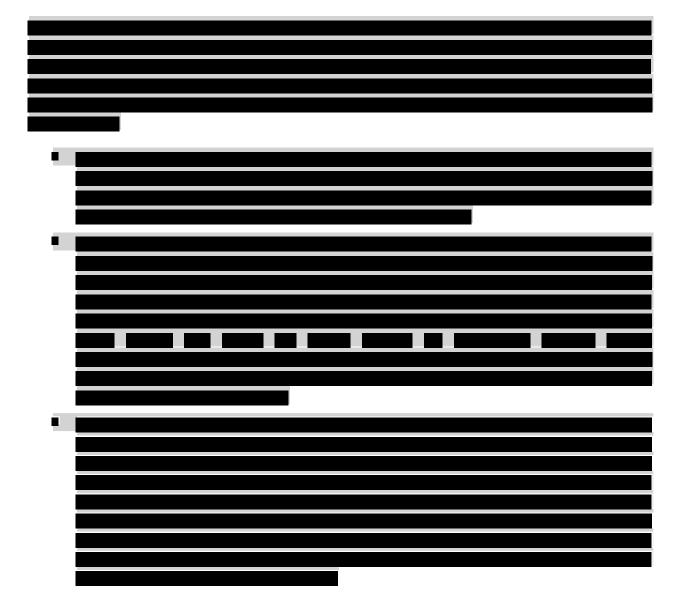


VINEYARD VINEYARD 8-8





8.5.4 Mitigation Measures



VINEYARD VINEYARD 8-10

Section 8.5 Attachments

Response to New York State Energy Research and Development Authority Request for Proposals ORECRFP24-1





Attachment 8.5-1:

Redacted



Attachment 8.5-2:

Redacted



Attachment 8.5-3:

Redacted