



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1**

5 Post Office Square, Suite 100
Boston, MA 02109

MEMORANDUM

SUBJECT: Concurrence Request for Approval of Alternative Model AERCOARE in Conjunction with AERMOD, in Support of Outer Continental Shelf PSD air permitting of the Park City Wind offshore wind power project

FROM: Jay McAlpine, Regional Air Permit Modeler (on detail)
Air Permits, Toxics, and Indoor Programs Branch, Air and Radiation Division
EPA Region 1, Boston, Massachusetts

THRU: Lynne Hamjian, Director
Air and Radiation Division
EPA Region 1, Boston, Massachusetts

TO: George Bridgers, Director of Model Clearinghouse
Air Quality Modeling Group, Office of Air Quality Planning and Standards

The U.S. Environmental Protection Agency (EPA) Region 1 seeks concurrence from the Model Clearinghouse regarding the prospective EPA Region 1 approval of an alternative model for an Outer Continental Shelf (OCS) Prevention of Significant Deterioration (PSD) permitting effort. The AERCOARE meteorological data preprocessor program will be used in conjunction with AERMOD (AERCOARE/AERMOD) to conduct an air quality modeling analysis as part of the PSD permit application for the proposed Vineyard Wind LLC's Park City Wind project to be located off the coast of Massachusetts near Martha's Vineyard. Vineyard Wind LLC has sought approval to allow the use of the AERCOARE/AERMOD model for their air quality modeling analysis, under 40 CFR Part 51, Appendix W §3.2.2(b), Condition (3), for the project's OCS PSD permit application. Under Condition (3), an alternative model may be used if the Regional Office finds the conditions specified in Appendix W §3.2.2(e) are satisfied.

Vineyard Wind LLC submitted their alternative model request on August 9, 2021. The request provided evidence and arguments supporting approvability of the modeling approach under Appendix W §3.2.2(b), Condition (3). EPA's prior approvals of the AERCOARE/AERMOD, using measured meteorological measurements from buoys, are well documented in the Model Clearinghouse's public database. EPA Region 1 also considered additional peer-reviewed scientific literature regarding the AERCOARE/AERMOD approach when using WRF-MMIF data, which is the approach proposed for the project.

EPA Region 1 has conducted a thorough review of the request and intends to approve the use of AERCOARE/AERMOD as an alternative model to conduct the air quality modeling analysis as part of the Park City Wind OCS PSD permit application. We have found the proposed application of the model is satisfactory under the requirements of §3.2.2(e). A technical analysis summarizing our review is attached to this memo for your consideration and includes the August 2021 alternative model request submitted by Vineyard Wind LLC. Please feel free to contact Jay McAlpine of my staff at (206) 553-0094 if you have any questions regarding the request.

ATTACHMENT