

**EXHIBIT DD**  
**SPECIFIC STANDARDS**  
OAR 345-021-0010(1)(dd)

**TABLE OF CONTENTS**

	<b>Page</b>
DD.1 INTRODUCTION .....	DD-1
DD.2 WIND ENERGY FACILITIES.....	DD-1



## DD.1 INTRODUCTION

**OAR 345-021-0010(1)(dd)** *If the proposed facility is a facility for which the Council has adopted specific standards, information about the facility providing evidence to support findings by the Council as required by the following rules:*

## DD.2 WIND ENERGY FACILITIES

**OAR 345-021-0010(1)(dd)(A)** *For wind energy facilities, OAR 345-024-0010 [To issue a site certificate for a proposed wind energy facility, the Council must find that the applicant:*

*(1) Can design, construct and operate the facility to exclude members of the public from close proximity to the turbine blades and electrical equipment.*

*(2) Can design, construct and operate the facility to preclude structural failure of the tower or blades that could endanger the public safety and to have adequate safety devices and testing procedures designed to warn of impending failure and to minimize the consequences of such failure.]*

Response: The Applicant's design will include fencing around all substations and other electrical equipment. The turbine generating equipment will be 80 meters above the ground and access to towers locked and limited to authorized personnel. The collector system will be located at least three feet underground.

During construction, access to the site will be limited to authorized personnel; the general public will be excluded. Authorized visitors to the site will be required to check in with security; construction personnel will be diligent in identifying and excluding non-authorized visitors.

During operations, all electrical components, such as the substations and turbines, will be locked and accessible only by authorized personnel.

Tower and blade design will be by a major wind turbine manufacturer, and the structures will be installed per manufacturer requirements. The turbines have automated cutoff devices to shut the equipment down when the wind is very strong and the turbine reaches the cut-out speed. Periodic inspections of all turbine equipment will be conducted per the manufacturer's specifications.

Each turbine will be equipped with vibration sensing equipment that will shut the turbine down if abnormal levels of vibration are detected. In the unlikely event of a blade defect, the preceding vibration caused by aerodynamic or structural flaws will trigger a shut down in order to prevent the type of failure that might create a personnel hazard.

*and -0015 [To issue a site certificate for a proposed wind energy facility, the Council must find that the applicant can design and construct the facility to reduce cumulative adverse environmental effects in the vicinity by practicable measures including, but not limited to, the following:*

- (1) Using existing roads to provide access to the facility site, or if new roads are needed, minimizing the amount of land used for new roads and locating them to reduce adverse environmental impacts.*
- (2) Using underground transmission lines and combining transmission routes.*
- (3) Connecting the facility to existing substations, or if new substations are needed, minimizing the number of new substations.*
- (4) Designing the facility to reduce the risk of injury to raptors or other vulnerable wildlife in areas near turbines or electrical equipment.*
- (5) Designing the components of the facility to minimize adverse visual features.*
- (6) Using the minimum lighting necessary for safety and security purposes and using techniques to prevent casting glare from the site, except as otherwise required by the Federal Aviation Administration or the Oregon Department of Aviation.]*

Response:

Roads: The Applicant will utilize existing county and farm roads for delivery of project components during construction and site access generally. Private roads will be required to be built for access to the turbines. These have been designed to be as short as possible and only wide enough to accommodate the necessary construction and operations traffic.

Underground Collector System: The collector system for the Project will be buried at least 3 feet underground. The Applicant proposes to construct two project substations. The first will transmit 200 MW of power to BPA just north of PPM Energy's Klondike Schoolhouse facilities; the second will transmit 200 MW of power to BPA at the John Day substation. Because of the different destinations for the power, two substations are the minimum number substations needed by the Project.

Existing Substations: Existing substations are miles away from the Project. The Applicant proposes to construct two project substations. The first will transmit 200 MW of power to BPA just north of PPM Energy's Klondike Schoolhouse facilities; the second will transmit 200 MW of power to the BPA's John Day substation. Because of the different destinations for the power, two substations are the minimum number of substation needed by the Project.

Transmission: Transmission from the east project substation to the BPA facility near Klondike Schoolhouse will be combined in the same right-of-way as the Wasco Electric Cooperative. Transmission from the west project substation to the John Day Substation will be adjacent to existing BPA high-voltage transmission lines for as much of the route as possible.

Design to Avoid Risks to Raptors and Other Vulnerable Wildlife: The Project will be designed to minimize raptor injury by adhering to the 1996 Avian Powerline Interaction Committee (APLIC) suggested practices for raptor protection on powerlines. Overall,

the project minimizes impacts to wildlife by minimizing the amount of disturbance in non-agricultural habitats, and provides mitigation according to ODFW habitat mitigation guidelines for unavoidable impacts to habitats.

Minimization of “Adverse Visual Features”: The Applicant understands that this standard applies to specific features on components, such as large logos, signs, and other similar details, versus the overall Project. The Project will not include unusual visual features, and signs, logos and similar components will be minimized.

Minimum Lighting Necessary Lighting requirements will be negotiated with the FAA. To minimize the number of lights, the Applicant will propose to place FAA lighting only on turbines at the ends of each string, and on turbines at the highest point within each string.