

## **Section 1 Project Description**

## 1.0 Project Description

Passadumkeag Windpark LLC is proposing the Passadumkeag Wind Project (the project), a 42-megawatt (MW) wind project located in Grand Falls Township, Penobscot County, Maine (Figure 1). The project also includes electrical collection infrastructure, an electrical substation, and an Operations and Maintenance (O&M) building. The project also includes one permanent 80-meter meteorological tower on the project site to monitor wind turbine performance.

The turbine portion of the project consists of 14 Vestas V112 3.0-MW turbines. Each turbine is 84 meters (approximately 276 feet) to the center of the hub, and a total of 140 meters (approximately 459 feet) to the tip of a fully extended blade. The entirety of the land utilized for the turbine portion of the project is located within property currently used for commercial forestry operations. The site contains developed logging roads that will be upgraded and used, where appropriate, to minimize clearing and wetland impacts.

Turbines are planned to be located on Passadumkeag ridge in Grand Falls Township. Power from the turbines will be collected in a 34.5-kilovolt (kV) collector line that will run approximately 17 miles from the ridge along Greenfield Road through Summit Township, Greenfield Township and Greenbush. Nearly all of this line is in an existing electrical distribution line right-of-way immediately adjacent to an existing road. The project will also construct a substation and O&M building in Greenbush, at the intersection of Greenfield Road with an existing 115-kV transmission line, Line 64.

Environmental studies completed before filing include two seasons of avian and bat surveys; a breeding bird survey; wetland delineations of the proposed ridgeline turbine corridor, proposed access road corridors, and a proposed electrical collection system, including a transmission line corridor and new substation; "in season" vernal pool surveys; and a rare, threatened, and endangered plant species survey. Additional reports and surveys include an analysis of historic architecture; Euro-American and Pre-Contact archaeology; visual impact analysis; shadow flicker analysis; sound analysis; and soils evaluation.

This application for the Project includes approximately 1.22 acres of wetland conversion by clearing trees associated with the collector line, and 9800 square feet of moderate value Inland Waterfowl and Wading Bird Habitat in two locations adjacent to Greenfield Road. There is no temporary or permanent wetland fill associated with the project design, and there are no new or expanded stream crossings. The Project also has two Permits by Rule, one for a Significant Vernal Pool habitat impact, and one for an Inland Waterfowl and Wading Bird Habitat impact.

## 2.0 Construction Plan

Construction is expected to take place in 2012. Construction of the project will generally follow the sequence of events detailed below.

1. Mobilization and preliminary layout and staking of new road segments, turbine clearings, an O&M building, and a substation site.  
*Week 1 – Week 4*
2. Commence clearing operations for roads, electrical collector lines, O&M building, and substation. Installation of erosion control measures in areas specified or required.  
*Week 3 – Week 8*
3. Installation of erosion control measures in areas specified or required.  
*Week 4 – Week 15*
4. Stumping, grubbing, and initial rough grading for roads and turbine laydown areas.  
*Week 5 – Week 16*
5. Blasting as necessary and on-site stockpiling of reusable blasted bedrock/ledge.  
*Week 6 – Week 18*

6. Substation and O&M building construction.  
*Week 6 – Week 21*
7. Stockpiling of imported road aggregate from local borrow pits (if required).  
*Week 7 – Week 19*
8. Final grading for roads and turbine areas.  
*Week 7 – Week 20*
9. Reseeding of temporary cleared areas.  
*Week 7 – Week 25*
10. Construction of turbine foundations and substation transformer pad.  
*Week 11 – Week 24*
11. Depending on turbine delivery schedule, some installation of overhead/underground 34.5-kV on-site electrical collection system, including pad-mount transformers may take place in this phase.  
*Week 13 – Week 30*
12. Delivery of turbine components to individual turbine sites.  
*Week 20-35*
13. Erection of base/mid-tower sections, assembly of rotors, erection of top tower section and nacelle, and erection of assembled rotor. Tower wiring, final cleaning, and final quality checks of wind turbine.  
*Week 20-38*
14. Energization of substation and collection system with quality checks.  
*Week 22*
15. Commissioning and testing of wind turbine generators and electrical interconnections.  
*Week 36-40*
16. Start of commercial operations.  
*Week 42*

**Figure**