

4906-17-05 Technical Data

(A) PROJECT AREA SITE

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(1) Geography and Topography

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except that Figure 5-1 has been modified to show the additional eight turbines and associated facilities.

(2) Aerial Photography

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except that Figure 5-2 has been modified to show the additional eight turbines and associated facilities.

(3) Site Mapping

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except that Figure 5-3 has been modified to show the additional eight turbines and associated facilities.

(4) Geology and Seismology

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except that Figure 5-4 and 5-5 has been modified to show the additional eight turbines and associated facilities.

(a) Site Geology

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(b) Geologic Hazards

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except the following:

- Figures 5-6 and 5-7 have been modified to show the additional eight turbines and associated facilities.
- The Applicant submitted the results of turbine-specific geotechnical studies conducted in spring 2010 and the final geotechnical report to the OPSB on July 2010. Appendix L provides supplementary analysis conducted for the eight additional turbines.

(c) Soil Suitability

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except the following:

- The Stormwater Pollution Prevention Plan (SWPPP) will be amended and amended pages will be provided to OPSB and OEPA. In addition, the revised SWPPP will be available onsite during construction.

(5) Hydrology and Wind

(a) Water Budgets

(i) Surface Water Resources

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(ii) Groundwater Resources

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except that Figure 5-8 has been modified to show the additional eight turbines and associated facilities.

(iii) Construction Water Usage

Water use during construction of the Facility will entail such operations as dust suppression and road watering. The Applicant's General Contractor is purchasing concrete from a local supplier and will not be constructing a temporary concrete batch plant for producing concrete required during construction as previously identified in the March 31, 2010 Supplement.

(iv) Operation Water Usage

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(b) Floods and High Winds

(i) Floods

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except that Figure 5-9 has been modified to show the additional eight turbines and associated facilities.

(ii) Winds

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(c) Maps

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(B) LAYOUT AND CONSTRUCTION

This section describes the layout and construction of the Facility.

(1) Project Area Site Activities

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except that Figure 5-10 has been modified to show the additional eight turbines and associated facilities.

(a) Wind Turbine Foundation

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except for the following:

- Figure 5-10 has been updated to remove the potential locations of the concrete batch plant. The Applicant's General Contractor is purchasing concrete from a local supplier. The Applicant will not be constructing a temporary concrete batch plant for producing concrete required during construction.
- The crane pad includes an area of 100 feet by 75 feet. At restoration the pad base will remain level with permanent gravel around the turbine. The Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010 identified an area of 40 feet by 60 feet. [Application, 5-21]

(b) Underground Electric Collection System

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except for the following: [Application, 5-22]

- The underground collection system will require varying widths of temporary right-of-way (ROW) depending upon the number of collection lines in the trench:
 - 1 Collector = 20 feet
 - 2 Collectors = 30 feet
 - 3 Collectors = 40 feet

The Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010 identified a 20-foot ROW.

(c) Aboveground Collection Lines

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(d) Substations

The Applicant has been able to reduce the number of collector substations required (from two to one) through electrical system layout efficiencies. The proposed voltage transmission process requires one collector substation that connects to the Project collection substation, which in turn connects to the interconnection substation.

(e) O&M Building

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(f) Test Borings and Cone Penetrating Test

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except for the following:

- The Applicant will submit the results of turbine-specific geotechnical studies and the final geotechnical report to the OPSB before construction. Appendix L provides additional analysis conducted for the eight additional turbines.

(g) Removal of Vegetation [Application, 5-25 to 26]

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except for the following:

It is anticipated that 66.5 acres of vegetation (66.5 acres of cultivated crops, zero acres of pasture, and zero acres of deciduous forest) will be temporarily removed during construction of the eight additional turbines covered by this Amendment; and of that, 5.4 acres (5.4 acres of cultivated crops and zero acres of deciduous forest) will be removed permanently. A tree clearing plan is being developed and will be submitted to OPSB prior to construction.

(h) Grading and Drainage

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(i) Access Roads [Application, 5-27 to 5-28]

Road building will include about 54.7 miles of one-time pass temporary crane paths with only minor grading to maintain the necessary slope for safe transportation. Only limited post-construction restoration would be required. After construction is complete, permanent access roads will be utilized for maintenance activities. The 42.9 miles of permanent access roads will be up to 20 feet wide (including 16-foot wide access road and 4-foot wide area for stormwater drainage).

(j) Removal and Disposal of Debris

No text changes from the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010 have occurred in this section.

(k) Post-Construction Reclamation

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(2) Layout

Figure 5-10 provides a map that shows the various elements of the Facility.

(a) Wind-Powered Electric Generation Turbines [Application, 5-29]

Figure A05-10 provides the location of the proposed 160 G-90 wind-powered electric generating turbines at the scale of 1:12,000.

(b) Transformers and Collection Lines [Application, 5-29]

The proposed Facility will require approximately 97.7 miles of underground and 7.8 miles of aboveground 34.5 kV collection system and approximately 1.8 miles of aboveground 115 kV collection line. Figure 5-10 provides the location of the collection lines.

(c) Construction Laydown Areas

No text changes from the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010 have occurred in this section..

(d) Transmission Lines

No text changes from the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010 have occurred in this section.

(e) Substations

The Applicant has been able to reduce the number of collector substations required (from two to one) through electrical system layout efficiencies. The proposed voltage transmission process requires one collector substation that connects to the Project collection substation, which in turn connects to the interconnection substation.

(f) Transportation Facilities and Access Roads [Application, 5-30]

A total of 42.9 miles of access roads will be required for the Facility. Figure 5-10 provides the location of the access roads used during construction and maintenance activities.

(g) Security Facilities

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(h) Grade Elevations

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(i) Other Pertinent Installations

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(3) Structures

No text changes have occurred in this section (Sections 3(a) through 3(e)) of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(4) Plans for Construction

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(5) Future Plans

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(C) EQUIPMENT [APPLICATION, 5-35]

As previously discussed, the equipment to be used for the Project area will include the following.

- 160 wind turbine generators¹;
- An electrical collection system using 34.5 kV underground and aboveground collection lines;
- Some 115 kV aboveground collection lines;
- One 34.5 kV to 115 kV collector substation;
- One 115 kV to 345 kV substation
- One interconnection substation;
- Up to two permanent met towers and a SODAR facility; and
- An O&M building.

The following sections provide a description for each Facility component.

¹ Within this Application, specific locations for 160 turbines and other related Facility components are identified. The queue position for the proposed development has a maximum potential output of 350 MW or 175 2.0 MW turbines.

(1) Wind Powered Generation Equipment**(a) Wind Energy Turbines**

No text changes have occurred in this section (Sections (a)(i) through (a)(iv)) of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(b) Electrical Components

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(i) 34.5 kV Electric Collection System

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except for the following: [Application, 5-38]

- Approximately 97.7 miles of underground collector lines and approximately 7.8 miles of aboveground 34.5 kV collector lines will be required for the Facility. The March 31, 2010 filing identified 103.6 and 5.4 miles respectively. There is no change in miles of aboveground 34.5 kV collector lines.

(ii) 115 kV Electric Line [Application, 5-38]

- In locations where more than one set of aboveground 34.5 kV lines are needed, a small substation will be constructed to transform the electricity to 115 kV. By doing so, this will allow the use of only one set of poles. Approximately 1.8 miles of aboveground collection lines at 115 kV will be required.

(iii) Substations [Application, 5-39]

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010, except for the following:

- The Applicant has been able to reduce the number of collector substations required (from two to one) through electrical system layout efficiencies. The Applicant would like to clarify that the proposed voltage transformation process requires one collector substation that connects to the Project collection sub, which in turn connects to the interconnection sub.

(2) Safety Equipment

No text changes have occurred in this section (Sections 2(a) through 2(c)) of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(3) Any Other Major Equipment

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(a) O&M Building

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(b) Met Tower(s)

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(c) SODAR Unit

No text changes have occurred in this section of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.

(d) Temporary Concrete Batch Plant [Application, 5-47]

The Applicant's General Contractor will purchase all concrete from a local supplier. The Applicant will not be constructing a temporary concrete batch plant for producing concrete required during construction. In the March 31, 2010 Supplement, the Applicant was considering constructing a temporary batch plant at one of two locations.

(D) REGIONAL ELECTRIC POWER SYSTEMS

No text changes have occurred in this section (Section D(1) through D(2)) of the Blue Creek Application approved by OPSB for a Certificate of Environmental Compatibility and Public Need on August 23, 2010.