

INTRODUCTION

The Kibby Expansion Wind Power Project (the “Kibby Expansion Project” or “Project”) is a 45 megawatt (“MW”) grid-scale wind energy project proposed to be located in Kibby and Chain of Ponds Townships, Franklin County, Maine. The Project is being proposed by TransCanada Maine Wind Development Inc. (“TransCanada”), which is a wholly owned subsidiary of TransCanada Corporation, a leader in the responsible development and reliable operation of North American energy infrastructure, including the adjacent Kibby Wind Power Project (the “Kibby Project”). The Kibby Expansion Project consists of 15 Vestas V90 or similar 3 MW wind turbine generators (“WTGs”) along the Sisk Mountain ridgeline, adjacent and to the west of the current Kibby Project. Associated elements of the Project include: access to the turbines utilizing the existing forestry roadway network to the greatest extent possible, construction of new ridgeline roads, aboveground 34.5 kilovolt (“kV”) electrical interconnections (collector lines) between the turbines and to a common, newly proposed Kibby Expansion Project Substation, and a short 115 kV electric transmission tap line between the new Kibby Expansion Project Substation and the existing Kibby Project 115 kV electric transmission line. The project footprint has been optimized for environmental, engineering and wind resource conditions. The Kibby Expansion facilities are expected to be in-service in October 2011.

The Kibby Expansion Project provides up to 45 MW of generating capacity in addition the 132 MW Kibby Project, 66 MW of which are currently in commercial operation on the “A Ridge” of Kibby Mountain with an additional 66 MW currently under construction on the Kibby Range “B Ridge” and expected to be in-service in October 2010. All of the new turbines are located within the expedited permitting area recently established by PL 2007, Chapter 661. This application is being submitted in accordance with the expedited wind energy development permitting process established by PL 2007, Chapter 661 and the subsequent “*Checklist and Guidance for Land Use Regulation Commission (“LURC”) Wind Energy Development Permit Applications* (the “Checklist”).”

The Kibby Expansion Project will utilize the same Vestas V90 3 MW wind turbines that are being utilized in the Kibby Project. The new turbine locations have been sited to optimize the use of the well-known, significant wind resource in the area, taking into consideration access for operation and maintenance while avoiding or minimizing to the greatest extent practicable potential impacts on the natural resources present on the Sisk Mountain ridge. Access for the project has been designed to utilize existing forestry roads and currently cleared areas to the maximum extent possible, keeping the length of new or improved roadways to the minimum necessary to ensure safe and efficient access. Siting of Project access has considered elevation, ground conditions and environmental issues to ensure that locations for roadways will minimize possible resource impacts. Through consultation with state and federal agencies and building upon the methods which were successfully implemented during the construction of the Kibby

Project, techniques have been identified for road design and construction that will minimize erosion potential and ensure that drainage patterns are maintained. As is the case for the Kibby Project, roads will not be paved. The travel surface of the road used to access the Sisk Mountain ridgeline will be approximately 20 feet. Access between turbines by crawler cranes will require a road travel surface width of 34 feet for construction, after which only 20 feet will be maintained. Detailed site plans are provided in Exhibit B.13.

The Kibby Expansion Project Substation will be located entirely in uplands off of Wahl Road at the base of the Kibby Mountain and Kibby Range ridges, approximately 800 feet from the existing Kibby Project Substation. This location will make use of the existing Gold Brook Road and existing improvements to the Wahl Road for access, and will not require any new 115kV transmission line other than an approximately 325-foot tap line to connect the new substation with the existing Kibby 115kV transmission line. The route for the proposed aboveground 34.5 kV collector line corridor extending from the new turbines on the Sisk Mountain ridge to the new substation has been selected to generally parallel existing or proposed roadways to minimize the amount of new corridor required which, in turn, minimizes visual and natural resource impacts.

Note that additional engineering refinements throughout the construction process are an integral part of the Project's intended implementation. Exhibit B.11 outlines a communication and review process, similar to that used successfully during construction of the Kibby Project that will identify those changes that require formal review and approval as opposed to notice, and the role of the third-party inspector and LURC staff in approving certain changes in the field. As with the Kibby Project, detailed geotechnical information has not been collected for permitting but will be obtained as part of the construction process and determinations of as-built locations for turbines and roads. Due to the Project location, the impacts associated with clearing and access to complete a geotechnical program sufficient for determining final placement of Project elements would be substantially similar to those associated with the clearing and access required for Project construction. As occurred during construction of the Kibby Project, TransCanada intends to conduct the geotechnical program as part of the construction process. As a result, the final design reflected in this application incorporates conservative assumptions that will be refined and reduced, if possible, through geotechnical and other field decisions. The Project as outlined in this application reduces impacts to the greatest extent practicable, and careful Project implementation will ensure that impact reduction continues to be a focus throughout the Project construction effort.

This application follows the organizational format established by the Checklist, and addresses the elements of the Project directly associated with construction and operation of the Project as set forth in the Checklist, including associated temporary work space requirements. Because the Kibby Expansion Project takes maximum advantage of the facilities approved for the original Kibby Project, there are no related infrastructure improvements needed outside of the immediate

Kibby and Sisk Mountain area. All of the new turbines are located within the expedited permitting area. A separate application will be filed with the U.S. Army Corps of Engineers that will address impacts to Waters of the United States (“U.S.”).

Key facts regarding the Kibby Expansion Project are provided in Table I-1. Details regarding each Project element are provided in the application.

Table I-1: Kibby Expansion Project Key Facts

Item	Units
Number of turbines	15
Turbine capacity	
<u>Each</u>	3.0 MW
<u>Total</u>	45.0 MW
Energy output per year	
<u>Each</u>	8 million kWh
<u>Total</u>	120 million kWh
Total new clearing	138.6 acres
Total new permanent clearing	55.0 acres
Total area affected by construction ¹	177.9 acres
New permanent development / maintained area ²	66.4 acres
New access roads ³	1.1 miles
Improved access roads	2.2 miles
Ridgeline Crane Roads	3.6 miles
Collector lines	8.9 miles
Total wetlands affected by construction	4.4 acres
Total wetland fill	0.8 acres
Total wetland permanently cleared ⁴	3.5 acres

¹ Includes areas with existing disturbance within contractor work areas except Gold Brook Road, Mile 2.5 Road and Wahl Road up to the Kibby Project Substation.

² Does not include the existing area of the Mile 5 and Wahl Roads that will be improved.

³ Does not include temporary skidder trail/construction access road.

⁴ Does not include filled wetlands.