

V-3.0 CONFORMANCE WITH LURC APPROVAL CRITERIA

The Kibby Wind Power Project 115 kV transmission line will cross through the following subdistricts within LURC jurisdiction: M-GN, P-SL, P-WL, P-UA, and P-RR. Construction and operation of the transmission line will meet all applicable statutory and regulatory criteria due to careful route selection, detailed environmental analyses, and extensive consultation with scientific experts and regulatory authorities.

The transmission line is a utility facility as defined in LURC Regulation 10.02(191). Utility facilities are allowed with a permit and subject to standards in all of the subdistricts the transmission line traverses. As discussed below, this element of the Kibby Wind Power Project meets the applicable standards set forth in 12 MRSA §685-A and B and Subchapter III of the LURC Regulations.

V-3.1 Consistency with Statutory Development Criteria (12 MRSA §685- B(4))

As discussed below, the 115 kV transmission line component of the Kibby Wind Power Project satisfies the statutory requirements of 12 MRSA §685-B(4).

V-3.1.1 Adequate Technical and Financial Provision for Complying with State Environmental Laws and Regulations

See Volume I, Section 1.5.3, for details regarding the applicant's technical and financial ability and Volume I, Section 1.3, for other applicable laws and permits.

V-3.1.2 Adequate Parking/Traffic Provisions

During construction, adequate provision will be made to accommodate all required loading and parking areas so that there will not be unreasonable traffic congestion or unsafe conditions on the existing roadways. In light of the fact that Routes 27 and 16 will be the primary routes for construction workers, and this area is not heavily traveled, any congestion is expected to be minimal. TransCanada will work with MDOT to ensure that construction traffic is coordinated with any ongoing highway improvement projects to avoid/minimize impacts, and will provide any additional traffic control personnel or equipment determined to be needed for safe traffic control on area roadways during construction.

Traffic associated with operation of the transmission line is *de minimis* and will consist of TransCanada staff and contractors traveling to the ROW to conduct routine maintenance and inspection activities typical of utility corridor maintenance.

See Section V-7.7 for additional details.

V-3.1.3 Adequate Provisions for Harmonious Fit into Existing Natural Environment

The project will not have an undue effect on the existing uses, scenic character and natural and historic resources in the area. The route for the transmission line has been carefully selected to

avoid sensitive natural areas and minimize visual impact. Because the poles can be installed with minimal ground disturbance, there will be little impact resulting from the proposed transmission line ROW.

The project vicinity is not known for any particularly outstanding natural resources or unique views. There are not large roadless areas that will be disturbed by the development. The project area is not within or near protected public lands, nor does it contain any of Maine's most well-known and highly valued mountains, such as are found in Saddleback, Redington, Sugarloaf, Katahdin, and Baxter State Park, for example.

TransCanada is working with the Maine Historic Preservation Commission and tribes to ensure that any potential issues are addressed. Three areas have been identified requiring ground surveys. It is anticipated that adjustments can be made to avoid historic resource impact if it is determined through those surveys this would be appropriate. See Section V-7.0 for additional detail.

V-3.1.4 Proposed Land Use Will Not Have an Undue Adverse Impact on Existing Uses or Resources

As demonstrated throughout Volume V, the transmission line has been carefully sited to ensure that it does not adversely impact existing uses or resources in the area. The majority of the transmission corridor (98 percent) is within active forest management land. Timber from the ROW will be removed in cooperation with the landowners. In addition, commercial logging activities may continue in the area adjacent to the ROW unimpeded. Approximately 6.0 miles (9.7 km), or 21 percent of the transmission line, is located adjacent to an existing 115 kV transmission line, further minimizing impacts to existing uses and resources. See generally Sections V-1.0 and V-2.0 for a discussion of the routing of the transmission line and alternatives analysis, which demonstrates the siting criteria and steps taken to minimize overall impacts.

The 115 kV transmission line ROW also avoids impacts to high value recreational areas. Where the ROW crosses Route 27 and the Appalachian Trail, it is adjacent to an existing transmission line, which minimizes new impacts to those existing resources. In addition, vegetative screening consistent with the existing transmission line in that area will be used to minimize visual impacts to vehicles on Route 27 and users of the Appalachian Trail. See Section V-7.0 for details on the recreational resources and measures taken to minimize impacts to such resources.

While, during construction, recreational use of the proposed ROW will be discouraged for safety reasons, once installation is complete existing recreational uses may continue and are not expected to be adversely impacted by the project. Indeed, the improved access and utility corridor development may improve existing recreational opportunities, such as hiking and cross country skiing. See Section V-7.4.2.

The routing of the transmission line and placement of structures has taken into account and avoided to the maximum extent practicable impacts to sensitive habitat and resources such as wetlands. See Section V-5.0 and V-6.0 for a discussion of resources and steps to minimize impacts to those resources. In addition, TransCanada has proposed vegetation clearing and ROW management measures that will further ensure that sensitive resources are not adversely impacted. See Sections V-5.0 and V-6.0, and Appendix V-A and V-B.

Finally, TransCanada has developed a detailed erosion and sedimentation control plan and specialized construction measures to protect resources during construction. See Appendix V-1-A for additional details regarding construction techniques and soil and erosion control.

V-3.1.5 No Unreasonable Soil Erosion

Erosion control devices will be installed prior to the initiation of clearing and the limited grading activities that occur in connection with transmission line construction. Sediment barriers (i.e., silt fences and/or hay bales) will be installed between wetlands/waterbodies and all disturbed areas unless land contour conditions slope away from these resources. Temporary water bars will also be installed in graded areas with slopes to divert run-off from disturbed soils into vegetated areas. Additional information regarding erosion control is provided in the E&S Plan (Appendix V-A).

V-3.1.6 In Conformance with Statutes and Regulations

As discussed throughout this application, the 115 kV transmission line will be in full conformance with all applicable statutes and regulations.

V-3.1.7 Public's Health, Safety and Welfare are Adequately Protected

The 115 kV transmission line has been carefully sited and designed and will be engineered, constructed and operated in a manner that will present no significant health or safety threats to the public. In fact, by displacing hundreds of thousands of tons of fossil fuel emissions per year, the Kibby Wind Power Project will have an overall long-term positive effect on public health, safety and welfare.

V-3.1.8 Evidence of Economic Benefits

The Kibby Wind Power Project will have a significant economic benefit on the region, primarily through payment of substantial property taxes, the creation of jobs in an area with a higher than average unemployment rate, and a host community benefit payment to the town of Eustis. See Volume I, Sections 2.1 and 9.2 for more detail.

V-3.1.9 Evidence of Impact on Energy Resources

Currently, approximately 40 percent of New England's electricity supply depends upon natural gas. Such over-reliance on natural gas has resulted in large increases in electricity prices, price volatility and reliability risks, particularly when demand is high and natural gas supplies are low.

Natural gas consumption in New England is growing while adequate future supplies are questionable. Reducing the region's dependence on natural gas through the diversification of energy sources is critical to the future of this area. The project will generate 357 million kilowatt-hours per year of clean, renewable energy, which will help to diversify the regional energy supply, while reducing dependence on imported fossil fuels. See Volume I, Section 2.1 for additional detail.

V-3.1.10 Evidence of Sufficient Right, Title and Interest

See Exhibit V-B, which demonstrates sufficient Right, Title and Interest for all of the LURC jurisdictional property along the transmission line.

V-3.2 Consistency with LURC Regulatory Criteria

V-3.2.1 Chapter 10.23, Special Exceptions in Protection Subdistricts

This transmission line will traverse the wetland protection subdistrict (P-WL), shoreland protection subdistrict (P-SL), unusual area protection subdistrict (P-UA), and recreation protection subdistrict (P-RR) which allow for utility facilities as special exceptions. As discussed below, to the extent that the 115 kV transmission line component of the Kibby Wind Power Project traverses the P-WL, P-SL, P-UA, and P-RR subdistricts, it satisfies the regulatory requirements for special exceptions.

V-3.2.1.1 Alternative Site Analysis

A special exception use will be allowed if, among other criteria, an applicant demonstrates that there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant. To meet this standard, TransCanada has conducted an analysis of potential interconnection locations and routes which were carefully considered for the Kibby Wind Power Project. See Section V-2.0 for a more detailed analysis of the alternatives considered for the 115 kV transmission line. As demonstrated in its alternatives analysis, TransCanada has selected a corridor that minimizes overall impacts consistent with the project purpose.

TransCanada has also minimized permanent impacts to wetlands within the ROW by avoiding or completely spanning wetlands where possible. In three locations it was not possible to locate structures entirely outside of the wetland due to site topography and wetland extent. In those locations, the small impact associated with pole placement is not expected to adversely impact the hydrology of overall functions and values served by the particular wetlands.

In addition to permanent impacts associated with pole placement, there will be wetland conversion from forested to shrub and/or emergent communities. While there may be a change in some functions and values associated with that conversion, there will not be any permanent loss in functions and values.

Finally, TransCanada will utilize existing logging roads to access the ROW during construction and operation and there will be no permanent wetland impacts associated with access. See generally Section V-6.0 for details regarding wetland impacts and the measures implemented to minimize impacts to those resources. Temporary impacts to wetlands during construction will be minimal.

V-3.2.1.2 *Appropriate Buffering*

The Kibby Wind Power Project 115 kV transmission line will be buffered from other uses and resources within the P-WL, P-SL, P-RR, and P-UA subdistricts with which the line is incompatible. For example, herbicides will not be applied, mixed, transferred or stored on the ROW or within 100 feet (30.5 meters [m]) of any wetland with standing water, stream, or rare plant site. And in the P-RR zone, which is centered around the Appalachian Trail, appropriate vegetative buffers, determined in consultation with the National Park Service, will be maintained to eliminate or minimize impacts to the trail to the extent possible.

V-3.2.2 *Chapter 10.25, Development Standards*

As discussed below, the 115 kV transmission line component of the Kibby Wind Power Project satisfies the regulatory standards of Chapter 10.25 of the Commission regulations.

V-3.2.2.1 *Technical and Financial Capacity*

See Volume I, Section 1.5 for details regarding the applicant's technical and financial ability.

V-3.2.2.2 *Vehicular Circulation, Access and Parking*

See the discussion in Section V-3.1.2 above.

V-3.2.2.3 *Scenic Character, Natural and Historic Features*

The project is located within a scenic but not unique area that includes numerous mountain peaks, streams and ponds. Forest harvesting is an integral part of the landscape historically and today. The transmission line will generally only be visible from the ROW itself and at road crossings, as this working forest provides plenty of visual buffering at most distances. Additionally, the ROW route has been sited to avoid settled areas and utilize topography to keep visual impacts minimal.

Scenic Character

Other more specific review criteria are:

- a. *The design of a proposed development shall take into account the scenic character of the surrounding area. Structures shall be located, designed and landscaped to*

reasonably minimize their visual impact on the surrounding areas, particularly when viewed from existing roadways or shorelines.

The transmission line has been extremely well sited to minimize views from sensitive public viewing areas. The line will only be visible from a small portion of the Appalachian Trail. See Section V-7.0 for a discussion with regard to potential visibility.

b. To the extent practicable, proposed structures and other visually intrusive development shall be placed in locations least likely to block or interrupt scenic views as seen from traveled ways, water bodies, or public property.

The transmission line will not block or interrupt scenic views or be visually intrusive from any public viewing locations.

c. If a site includes a ridge elevated above surrounding areas, the design of the development shall preserve the natural character of the ridgeline. (LURC Rules Section 10.25.E.1 Scenic Character, Natural and Historic Features)

The transmission line route avoids crossing highly visible ridge lines to the extent practicable. One visible ridge that is traversed by the ROW, Hedgehog Hill, is crossed by an existing ROW, and the proposed transmission line will be adjacent to the existing line, minimizing additional visual impacts.

Natural and Historic Features

a. Although two plant species listed as imperiled (S2) have been observed in the transmission line corridor, the installation is not expected to have an undue impact on those species. See Section V-5.2.1 for a more detailed discussion.

b. Maine Historic Preservation Commission (MHPC) has identified three locations along the transmission corridor which may contain areas of archaeological significance. Those areas are to be surveyed at a later date (as soon as weather permits), in accordance with a scope of work declared to be acceptable in a February 16, 2007 letter from MHPC. Once the survey has been undertaken, the results will be provided to LURC. It is not anticipated that significant cultural resource issues arise. Because the three areas of interest are located along streambeds, impact to such areas will be minimized because the transmission line design already prioritizes distance from such areas. Furthermore, the impact area required for pole placement is very small, and adjustments can be made if it were determined that a resource needing avoidance was located in a particular work area. See Section V-7.5.

V-3.2.2.4 Noise and Lighting

Aside from construction activities, there will be minimal noise associated with operation of the transmission line. See Section V-7.3 for additional details.

The transmission lines will not require lighting.

V-3.2.2.5 *Soil Suitability*

Based on the results of the soil survey activities and analysis, soils in the proposed project area are considered to be suitable for the proposed development. See Section V-4.0 and Exhibit V-E for more details.

V-3.2.2.6 *Solid Waste Disposal*

No significant solid waste will be generated from operation and maintenance of the transmission lines. Vegetative and woody debris associated with clearing activities during construction will be managed as described (see Section 9.8.1 of Volume I) and other solid waste generated by construction activities will be appropriately managed and disposed of off-site in a licensed facility. See Section V-7.8 for a more complete discussion.

V-3.2.2.7 *Surface Water Quality*

The transmission line construction and operation will have no adverse impacts on surface water quality. There is no anticipated direct discharge of pollutants associated with the transmission line, and best management practices will be employed and buffers implemented to protect surface water quality. TransCanada has proposed 100-foot (30.5 m) buffers on either side of perennial water bodies. The buffer provisions limit the placement of structures within buffer areas and restrict the manner and amount of vegetative clearing that may occur within the buffer. These measures will minimize the potential for erosion and sedimentation during construction and will provide important ongoing benefits to the water resources during operation of the line. The buffers and their benefits are discussed in greater detail in Section 5.0 of the Vegetation Management Plan (Appendix V-B). In addition, erosion and sedimentation control measures will be implemented to further minimize the potential for impacts to surface waters, as detailed in the E&S Plan (Appendix V-A).

V-3.2.2.8 *Phosphorus Control*

Phosphorus control standards apply only to those non-residential developments that create disturbed areas of one acre or more within the direct watershed of a body of standing water of at least ten acres in size. Construction of the transmission line will not result in the creation of new impervious areas or adversely alter the hydrology of the affected area. As discussed in Section V-1.0, the transmission corridor will be a vegetated ROW similar to other utility corridors in Maine. While existing forested areas will be converted to shrub and/or emergent vegetation, there will be no significant change in stormwater runoff characteristics, including quality and quantity. Therefore, no specific phosphorus control measures are necessary.

V-3.2.2.9 Erosion and Sedimentation Control

As discussed in Section V-3.2.6, transmission line construction techniques will incorporate careful erosion and sedimentation control measures. Additional information regarding erosion control is provided in the E&S Plan (Appendix V-A).

V-3.2.2.10 Groundwater Quality

The project will have no significant impact on groundwater quality. See Section V-6.2 for more detail.

V-3.2.2.11 Air Quality

The Kibby Wind Power Project will result in a significant net air quality benefit to Maine and the region by displacing a portion of regional electricity generation using fossil fuels or other combustion sources

The Kibby Wind Power Project will displace: approximately 200,000 tons per year of carbon dioxide (CO₂), a greenhouse gas; over 300 tons per year of sulfur dioxide (SO₂), an acid rain precursor; and approximately 90 tons per year of nitrogen oxides (NO_x), an ozone precursor, which would otherwise be emitted by fossil-fuel-fired power plants in the region. The approximately 200,000 tons of CO₂ offset per year by the Kibby Wind Power Project is equivalent to removing about 35,000 cars from the road. The transmission line element of the project is essential to realization of this benefit. See Section 6 in Volume I for more details on the Kibby Wind Power Project's air quality benefits.

V-3.2.2.12 Wetland Alterations

As discussed in Section V-3.1.2.9, the 115 kV transmission line has been carefully designed to have minimal impact on wetland resources. Where possible, wetlands have been avoided or completely spanned and pole placement located outside of wetland. The ROW will, however, traverse a corridor within which wetlands are located. This will generally not result in loss of wetlands, but rather conversion of wetlands from forested wetlands to shrub and emergent wetlands typically associated with transmission lines. The current design is based on a minimum spacing of 25 feet (7.6 m) from the edges of wetlands. There are a few locations where extensive wetland systems exist that could not be avoided. As designed, of the proposed 223 transmission structures, only three structures are located in wetlands. As a result, 18 anchors are located in wetlands. Three additional structures are located within 25 feet (7.6 m) of wetlands.

V-3.2.3 Chapter 10.26, Dimensional Requirements

Although the dimensional requirements are intended for buildings and similar structures, the poles associated with the transmission line have been set back from streams and the upland edges of wetlands to the maximum extent possible. For example, structures have been placed

greater than 100 feet (30.5 m) from streams to the extent possible. One structure is 75 feet (22.9 m) from an intermittent stream. Similarly, poles are set back greater than 100 feet (30.5 m) from all paved traveled roadways. One structure is set back 25 feet (7.6 m) from a gravel traveled roadway, Tim Pond Road. This structure location is required since wetland avoidance for adjacent structures create engineering constraints that dictate the structure's placement this close to the road. The resulting advantage to having the structure this close is that the conductor height will be maximized at the road crossing. Thus, the transmission line design incorporates the minimum setbacks included in LURC's dimensional requirements to the maximum extent practicable.

V-3.2.4 Chapter 10.27, Activity Specific Standards

Although the activity-specific standards do not apply where, as here, a permit is being issued by the Commission, the 115 kV transmission line satisfies the vegetation clearing and road and water crossing standards, which is further evidence of the development's consistency with LURC's more general criteria.

V-3.2.4.1 Vegetation Clearing

A vegetative buffer strip shall be retained within 75 feet (22.9 m) of the normal high water mark of any body of standing water less than 10 acres in size, or any flowing water draining less than 50 square miles, pursuant to 10.27, B.1, and shall be maintained in accordance with the standards set forth in 10.27, B.2. TransCanada is proposing 100-foot (30.5-m) buffers on all perennial waterbodies, which will meet the objectives and purposes of this standard.

V-3.2.4.2 Road and Water Crossings

Road and water crossings in P-WL1, P-WL2, and P-SL subdistricts will be designed and constructed to meet the standards in 10.27,D.