November 27, 2018

Mr. Erle Townsend
Office of the Commissioner
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333

Subject: RoxWind #L-27863-ES-A-N; L-27863-NJ-B-N
Roxbury Township
Applicant – RoxWind LLC
Letter of Response #3

Dear Mr. Townsend:

On behalf of RoxWind LLC, Stantec has received and reviewed comments from LandWorks in their *Review of the RoxWind LLC Project Scenic Resource Impact Assessment* dated November 7, 2018. Stantec been engaged in the permitting, design and/or construction monitoring of nine commercial wind projects in Maine and is intimately familiar with Maine regulatory and Best Management Practices for wind projects. For ease of reference, we have summarized several comments on pages 6-7 that LandWorks raised related to the project's civil design below in italics, followed by our response in **bold**.

Comment:

LandWorks states that the project plans prepared by Stantec do not reflect accurate post-construction clearing effects. They cite specific drawings and locations where they conclude additional clearing beyond what is reflected in the project plans will occur. Their comments reflect a lack of understanding of civil design and construction techniques.

Response:

Stantec has reviewed the project drawings and the proposed post construction clearing limits on the plans. Our experience on similar projects, including designing and observing construction of Maine's largest wind farms in Bingham and Oakfield, has been that clearing limits, as established at the toe of fill slopes or cut slopes during design, are reasonably maintained by the contractor during the course of the actual construction. Typically, the contractor relies on the digital design information and the use of electronic equipment for layout control and for the initial clearing limits layout. Thus, the ability to control the limits of work starts very early in the construction process and the typical goals of minimizing disturbed areas, avoidance of resources, etc. can be reasonably achieved. The ability to control clearing limits is also aided specifically on the RoxWind project by the following conditions:

The ridgeline road and turbine pad areas are defined by two basic zones:

- **The first zone is an earthwork fill zone to construct the road basically from the north end of the ridge in the vicinity of the existing transmission line crossing (Station 145+00) to the WTG#2 pad area at Station 160+00. There will be a fill slope on the west facing side of the road, although this fill zone is generally contained within the elevation range of 1,750 to 1,920 feet. Any visual exposure to the major project fill slopes is limited to a somewhat lower section of the ridge. Further, the natural topography on the west side of the ridge runs in a southwest direction, whereby we believe there will be natural buffering of the fill area at least from the visual lines from the southwest and the Whitecap position. The WTG#4 location is also a modest fill area. However, the road and pad are expected to be nearly at grade with existing ground, thus minimizing the clearing limits required for the road and pad areas along the final 500 feet of road at the south end of the ridge. The south end of the project will take advantage of the existing tree cover, since there is limited clearing and cuts/fills at the end of the road. We also note that new clearing for the project in some areas is already minimized due to the logging activity that has occurred over much of the top of the ridge in the past.**

- **The second basic construction zone consists of an earthwork cut that extends from the WTG#2 position at Station 160+00 to nearly the top of the ridge at Station 183+00, just beyond WTG #3. The construction of the road and the pad areas for WTG#2 and #3 are in cut areas thus reducing any opportunity for exposure as well as aiding with the ability to maintain the work limits. We expect that these cut zones will result in modest exposed rock conditions that will aid with minimizing erosion and exposure issues. We also note that WTG#3 position will be located northeast of the height of land so its visual exposure from the southwest and Whitecap is substantially shielded by the natural topography. The height of land is about elevation 2,143 feet and the WTG#3 pad is at 2,114 feet.**

Comment:

LandWorks also asserts that T3 and T4 clearing will results in ongoing erosion due to severe climate conditions, including high wind/rain storms and icing events, and suggests that management strategies are needed to address these issues.

Response:

The plans have been developed in accordance with the provisions of the MaineDEP Chapter 500 Basic Standards provisions and our extensive design experience to address erosion and sediment control during the course of construction and through long term operation of the facility. We have found that these projects are largely benefited by the long experience and construction techniques employed by the contractors building the facilities. This includes the substantial use of blasted rock material to secure and stabilize ground conditions and to deal with runoff and related issues. They also employ other various Best Management Practices to prevent soil erosion such as erosion control mix placement, riprap stabilization, and vegetation reestablishment. Again, we note that the

WTG#3 location is in an earthwork cut zone so that will likely result in either some limited exposed ledge surface and/or heavily revegetated area. The WTG#4 area is nearly at-grade so the limits of cuts and fills are minimized as are the clearing limits. The exposure to upstream runoff passing through the work area is also limited. On this basis we are confident that, as with similar sites developed in Maine, the site will be satisfactorily managed against the more severe weather conditions characteristic of Maine's hilltops and ridgelines.

If you have any questions with the information being submitted, please contact our office.

Sincerely,

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