

KIDDER HILL COMMUNITY WIND

To: Irasburg Select Board
Irasburg Planning Commission
Lowell Select Board
Lowell Planning Commission
Ten-Mile Town Select Boards
Ten-Mile Town Planning Commissions
Northeast Vermont Development Association
Adjoining Landowners

VT Agency of Agriculture, Food & Markets
VT Department of Public Service
VT Agency of Natural Resources
VT Agency of Transportation
VT Division of Historic Preservation
VT Department of Health

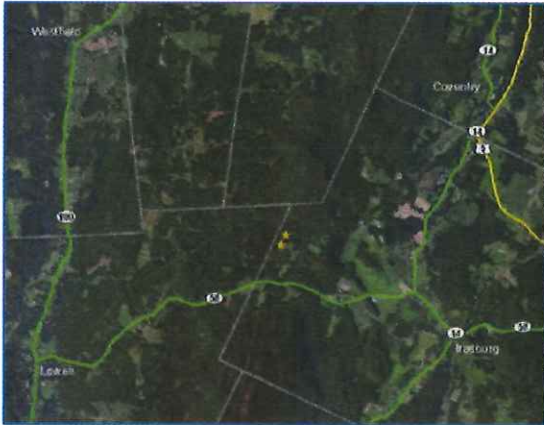
RE: Kidder Hill Community Wind Project 45-Day Pre-Filing Notice

Date: December 23, 2016

Introduction

Kidder Hill Community Wind LLC (KHCW) wishes to install and operate two wind turbines on a private hilltop property located in the Towns of Lowell and Irasburg, Vermont. KHCW prefers to sell the power produced from the project to Vermont electric utilities, with a portion (up to 500 kW) reserved for members of the host community(ies) on a net-metered basis. KHCW is seeking input on its preferred power sales arrangement and its preliminary plans for the installation of the wind turbines. This input will inform KHCW's application for a Section 248 certificate of public good that KHCW expects to file on or after February 6, 2017.

The enclosed Project Site Plans show the three (3) preferred options for the main project components described below (Attachments A1 through A3). A natural resource map (Attachment B) and a USGS map that identifies the general location of project components in relation to the surrounding area (Attachment C) are included. We have also included with this letter a diagram of a typical wind turbine (Attachment D) and a photographic simulation of two proposed wind turbines (Attachment E). A glossary of key technical and other wind-specific terms is also provided at the end of this letter. KHCW welcomes input from you and other stakeholders on the alternative turbine locations and other aspects of the project design so that we can consider potential impacts and mitigation where appropriate.



Location Map

Project Description and Construction Plans

Kidder Hill Community Wind is the latest wind energy project of lifelong Vermonter David Blittersdorf, an experienced renewable energy business leader. David grew up in Pittsford, Vermont within view of Vermont's first grid-connected, 1.25 MW wind turbine generator on Grandpa's Knob. At the age of 14, David built his first wind turbine to power lights for the small shack where he boiled sap into maple syrup. He later co-founded NRG Systems, located in Hinesburg, VT, an internationally recognized leader in wind

resource instrumentation manufacturing. In 2012, David became a partner in Georgia Mountain Community Wind, a 10MW, four wind turbine project that has been supplying electricity to the City of Burlington, VT since December 2012.



David's Log Cabin on Kidder Hill

The KHCW project will be located along a $\pm \frac{1}{4}$ mile section of hilltop, approximately 1,760 to 1780 \pm feet above sea level on a portion of the ± 560 acres of land straddling the Lowell/Irasburg townline. The hilltop property affords space for various land uses in addition to residential living (see insert), including pasturing cows, residential wind energy production, snowmobiling and other recreational activities, and logging.

KHCW has prepared three options (Scenarios 1, 2 and 3) primarily for the local communities' consideration. These options are enclosed and

show three turbine layouts that differ slightly in the location of the turbine foundations. The Lowell Select Board has indicated its support for having Lowell host KHCW's two wind turbines, although KHCW would like to offer the adjacent town of Irasburg an opportunity to receive direct economic benefits from hosting a wind turbine on the Irasburg side of David's property. Therefore, Scenario 1 sites two wind turbines in Irasburg, Scenario 2 sites two wind turbines in Lowell, and Scenario 3 sites the southern wind turbine in Lowell and the northern wind turbine in Irasburg. At this time, KHCW intends to submit all three Scenarios to the Public Service Board for its consideration.

Natural Resource Review

KHCW commissioned a natural resource review in and around the area where the project components are proposed to be located. Each Scenario is designed so the project will avoid all regulated wetlands and wetland buffers within the vicinity of the access road and larger parcel. No other protected natural resources were identified on the project site. A complete

natural resources report will be filed with the Public Service Board petition.

Wind Turbines

The wind turbine models under consideration for the project have three main components: a three-bladed rotor, a nacelle, and a supporting tower. The kinetic energy in the wind turns the three blades attached to the rotor. The resulting mechanical power turns the generator to create electricity. The nacelle houses most of the moving parts, sits atop the tower and functions to “yaw” or face into the wind.

The wind turbine towers will be a neutral, off-white color which softens their visual prominence on the horizon. The towers will provide protection from the elements for electrical and communication cables and operational computer equipment, as well as safe access for service personnel. Being enclosed, the towers prevent birds and raptors from nesting or perching on them. Typical wind turbine components are labeled on the wind turbine diagram included with this package. As approved by the Federal Aviation Administration

(FAA), the wind turbines selected for this project will be up to 499 feet high when a blade is in its highest position. Both wind turbines will have FAA-regulated lighting on top of the nacelle.

The wind turbine model selected for the project will have an up to 2.5 megawatt (MW) generator for a total installed electric capacity of up to 5 MW. The specific wind turbine manufacturer will be selected after a formal wind turbine solicitation process is completed closer to the construction period. For our impact analyses, we have modeled two wind turbines up to four hundred ninety-nine feet (499') tall, when a blade is in its highest position.

Transportation and Access Road

The wind turbines will be accessed via an existing driveway off Kidder Hill Road, a local Class 4 town road, located near the Lowell/Irasburg town line, off the north side of State Route 58. Some upgrading to the driveway will be required to accommodate construction vehicles, and a new access way of approximately 35 feet in width will be created between the two turbines. This width is temporary and is needed to enable movement of the installation crane between the wind turbine base areas for raising turbine components. After installation, the access way will be returned to the existing driveway width.

Construction Materials

Most road and turbine pad construction materials are expected to be sourced locally whenever possible. These road and turbine foundation materials would use standard trucks for delivery to the site. Vehicles will utilize the state and local roads in the area in accordance with state and local regulations.

Turbine Components

The largest wind turbine components, namely tower sections, blades, hubs and nacelles will require special handling and transport vehicles from the manufacturing facilities to the

project site. Transportation regulations regulate oversize/overweight loads and will require the wind turbine components to be shipped with special permits to travel over Vermont's roads and rail network. Specific transportation plans will be coordinated with town, county and state transportation officials and will be subject to Public Service Board approval.

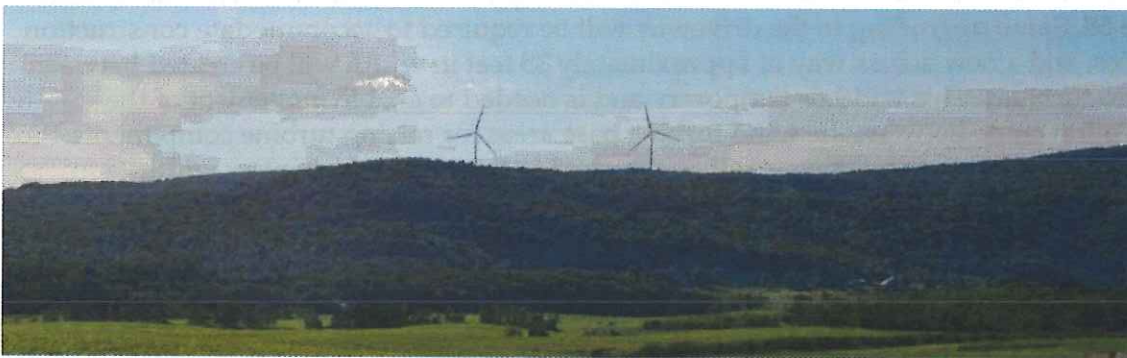
Electrical Collection System

A new electric collection line will carry power generated from the wind turbines through one of two options. Either Option 1, north to an interconnection point on Green Mountain Power's ("GMP") existing 46 kV transmission line, or Option 2, south to Route 58 and on to Route 14 to an interconnection point on Vermont Electric Cooperative's ("VEC") distribution line that parallels Route 58 to Route 14. The latter will necessitate the project to install upgrades to the existing VEC line. The electric collection line will be installed underground between the wind turbines. Safety equipment (enabling the project to be switched off at any time as necessary) will be installed at the point of interconnection.

Under Option 1, single poles will carry the line overhead from the northern turbine to the point of interconnection with GMP's existing transmission line. Option 2 routes a new 12 kV distribution line along the western side of Kidder Hill Road to Route 58, then easterly along Route 58 to a location along Route 14 where there are existing VEC 12kV distribution facilities. This southerly route would involve the Project rebuilding or rerouting the existing VEC distribution line.

Interconnection requests to VEC and ISO New England (the latter for connection to GMP) are being evaluated to assure electric grid reliability and stability and to identify needed upgrades or modifications to safely interconnect the project. We expect the interconnection studies to be completed shortly after submittal of our Section 248 petition to the Public Service Board in early February 2017.

Aesthetics



Landworks of Middlebury, Vermont is conducting an aesthetic assessment of the project, which will consider the potential visual impact of the project and associated interconnection facilities, and identify measures that could be taken to soften any such impact. The assessment follows the parameters established by the Public Service Board for

energy generation projects using the "Quechee" analysis. Particular to wind energy generation, the aesthetic assessment will consider potential visual impact within a ten-mile (minimum) radius of each turbine. This review will consist of over 318 square miles and cover 16 towns.

This region contains a mix of residential, agricultural, forestry, commercial, industrial and utility development within the project's viewshed. The project is not expected to be visible from most scenic resources in the area, or from population centers in Orleans, Barton, or Newport City, due to topography, vegetation, and existing structures. A complete aesthetics analysis will be submitted with the petition for a certificate of public good.

Project Benefits

Based on available wind data, and assuming turbines are selected that will facilitate a 5 MW wind project producing at an annual 30% capacity factor, the estimated net annual energy production will be 13,140,000 kWh. For reference, this amounts to the annual electricity requirements of over 2,000 average Vermont households.

An additional value is the ability of KHCW to provide its output at long-term stable prices, that are not subject to volatile price swings in New England's electricity markets. Vermont state policy has typically encouraged utilities to enter long-term, stably priced power contracts for renewable energy as a fundamental way to add value to local energy supplies and protect ratepayers from rate increases caused by volatile short-term energy purchase strategies. The KHCW project would be part of the answer to Vermont's future electricity generation needs and will help Vermont achieve energy independence and further greenhouse gas reductions.

Most important are the project's benefits from avoiding energy made from polluting fossil fuel-fired electric generation plants, which also helps to minimize acid rain, ozone depletion, dirty-air related health problems, and climate change. We expect that the project will reduce greenhouse gas emissions by approximately 4,792 tons/year, at an annual value of \$479,200. Over the twenty-year life of the project, the present value of the greenhouse gas reductions will equal \$ 7.1 million.

This project will have a positive impact on the regional and state economy both during the construction period and during the ongoing operation of the facility. Significant dollars are and will be paid to Vermont firms for the project's development and construction jobs in Vermont, and in particular Orleans County, during the construction period.

"Today, I want to continue to produce more renewable energy in Vermont, by building a community wind energy project that will help us to continue to lead on the clean energy front. This is an exciting, smaller-scale, community wind project behind my log cabin. The wind is local, the electrons will be used locally, the financing is local, and so much of the work is local. This is a great community wind opportunity."

David Blittersdorf

Based upon payments in other Vermont communities hosting wind generation facilities, we estimate the project will contribute approximately \$40,000 in direct local annual payments. As well, we estimate that the project will contribute approximately \$800,000 to the state-wide education fund over the 20-year life of the project.

Finally, this project can serve as a local clean energy classroom. As experienced at other Vermont wind facilities such as Georgia Mountain Community Wind, community members, visitors to the area and school groups visit these facilities annually. With the emphasis in our public schools on Science, Technology, Engineering, and Math—a STEM education—a project like this is an ideal aid to local teachers to bring difficult subjects to life with practical examples in our community.

Next Steps

We anticipate filing a petition for Kidder Hill Community Wind with the Vermont Public Service Board on or after February 6, 2017. The Project schedule contemplates receipt of all necessary permits and approvals in the first half of 2018, so that the Project can break ground later that year.

Right of Planning Commissions to Comment on the Project Plans

Under state law (30 V.S.A § 248(f)), municipal and regional planning commissions may make recommendations to the Board and to the petitioner (Kidder Hill Community Wind) in a Section 248 proceeding at least 7 days prior to filing the petition with the Public Service Board. If you would like us to take your comments and suggestions into account before we file our petition with the Public Service Board, we would appreciate receiving them no later than January 30, 2017, which is 7 days before our anticipated February 6, 2017 filing date. There will be additional opportunities to file comments after the petition is filed, including another 45-day period for planning commissions to file revised recommendations with the Public Service Board.

Additional information about the Public Service Board Section 248 process, including how to participate in the Board's proceedings, can be found in the "Guide to the Vermont Public Service Board's Section 248 Process" at <http://psb.vermont.gov>. The Guide may be outdated as amendments to Section 248 now enable municipalities and regional planning commissions to participate as formal parties in the Board proceeding. We look forward to Lowell and Irasburg's participation in this process.

We hope that you will provide comments, share information and ask questions early and often so that we can evaluate and incorporate your suggestions and ideas into the overall planning and design process. As the project is still in the design phase, we will continue discussions and welcome feedback on this project from your representatives, as well as various key stakeholders.

If you are interested in a presentation on the project, or have comments or request further information, please call 802-744-0426 or email to kidderhillcommunitywind@gmail.com.

Thank you for your participation in this process.

Sincerely,



Leslie A. Cadwell
Counsel for Kidder Hill Community Wind, LLC

Enclosures

Glossary

- Capacity (vs electricity): The maximum amount of power an electric generator can produce, typically provided in Megawatts.
- Comprehensive Energy Plan: The Comprehensive Energy Plan (CEP) addresses Vermont's energy future for electricity, thermal energy (heating), transportation, and land use.
- Electric Collection Line: The electrical line that connects an electric generating plant to the electrical network of an electric distribution or transmission utility.
- Electric Generator: The component of the wind turbine that converts the energy extracted from the spinning rotor blades into electricity.
- Hub: The center component of the wind turbine rotor where each of the three blades is mounted.
- ISO New England: Independent System Operator of New England. The entity responsible for management of the New England regional power grid.
- Kilowatt hour (kWh): A measure of electrical energy equivalent to a power consumption of 1,000 watts for 1 hour.
- Megawatt (MW): A unit of electrical power equal to one million watts; a measure of the output of a power station. One Megawatt of power can light ten thousand 100W lightbulbs.
- Nacelle: The component of the wind turbine that sits atop the tower, houses most of the moving parts, and functions to yaw or face the wind turbine rotor into the wind.
- Nameplate capacity (or "rated capacity"): The number registered with authorities for classifying the maximum possible power output of an electric generator, as rated by the manufacturer. This capacity does not necessarily reflect the amount of power that will be generated.
- Quechee Analysis: A two-part test utilized by the Public Service Board in assessing whether a proposed project will have an undue adverse effect on aesthetics under 30 V.S.A. § 248. The analysis involves a series of questions designed to identify whether a given project will have an "adverse" impact on the aesthetics and scenic and natural beauty of an area, if so, whether that adverse impact can be considered "undue."
- Rotor: The part of the turbine that rotates. The rotor of a conventional wind turbine consists of three blades and a hub.
- Safety equipment (protection equipment, switchgear and/or electrical disconnect): Electrical switches, fuses and devices that enable an electric generator(s) to be

disconnected from the electric grid thereby protecting it and the grid from equipment malfunction.

- **System Impact Study:** an electrical engineering assessment of the ability of a proposed project to interconnect safely and reliably to the electric grid.
- **Tower:** The component of the wind turbine that supports the nacelle and rotor.
- **Viewshed:** The surrounding land area from which a structure or object is visible.
- **Wind Turbine:** A generator and supporting components that converts the kinetic energy of the wind to electric energy. The main components of a conventional wind turbine are the three blades, hub, generator, nacelle, and tower.
- **Yaw:** To turn by angular motion around a vertical axis.