

DEERFIELD WIND NEWSLETTER

Winter 2007/2008



Dear Neighbors,

Happy Holiday Season! We're writing to you now to bring you up to date on the Deerfield Wind project progress and to answer some of the questions and comments we've heard from you at public meetings and events over the past several months.

First, in filings to both the Vermont Public Service Board (PSB) and to the National Forest Service, we have significantly reduced the overall project footprint by altering the design. Instead of the 'up to 24 wind turbines' originally specified, the project now consists of only 17 turbines, each capable of producing 2 megawatts of power, for a total project size of 34 megawatts (MW), in Searsburg and Readsboro, VT.

Our updated website www.ppmenergy.com/deerfield.html has more information on Deerfield Wind and will provide you with the full scope of the project, including photo simulations of the wind farm from several vantage points in Searsburg, Readsboro, Whitingham and Wilmington as well as maps showing access roads and transmission routes. Some of these visuals are included in this newsletter. The website also features technical aspects of the project, and gives you direct access to the results of environmental and other studies already conducted at the site. And, the website offers a way for you to contact us for more information.

At recent public meetings, Deerfield Wind has received a lot of positive feedback from the local communities regarding project development, for which we are grateful. However, we have also heard people's concerns and questions about the project and want to address them directly. We would like to do our best to respond to your inquiries. And if you don't see the information you're looking for, we are available to answer you personally.



Photosimulation of Deerfield Wind on Rt 100 approaching Heartwellville, Readsboro



The PPM-sponsored bus tour of the Searsburg Wind Facility was part of the Deerfield Valley Farmer's Day Fair held in Wilmington on August 25, 2007.



YOUR QUESTIONS & COMMENTS ADDRESSED

Here is a sampling of the questions we've heard from area residents.

IS A WIND FARM A PERMITTED USE ON FOREST SERVICE LAND?

The role of the US Forest Service is to protect and manage the land for various uses. Forest resources, including wildlife habitat, wilderness, clean water and wetlands, timber and forest products, recreation opportunities, and energy production are managed and conserved through a balance of activities and uses. <http://www.fs.fed.us/r9/gmfl/>
In addition, the most recent Green Mountain National Forest Land and Resource Management Plan (LRMP) of 2006 encourages Renewable Energy Generation as a goal for portions of Forest Service lands. The Deerfield Wind project is proposed within a management area that the Forest Service has designated for



Maple Ridge Wind Farm in Lowville, NY

“Diverse Forest Use” which, among many other uses, includes opportunities for renewable energy development. This site was selected principally because years of testing have shown it to be an excellent wind resource. Also, the site is adjacent to an existing transmission line and the Searsburg Wind Facility, so Deerfield Wind will be utilizing existing infrastructure.

HOW STRONG IS THE WIND AT THE DEERFIELD WIND SITE?

Many years of wind resource data collection and lessons learned from Green Mountain Power's nearby Searsburg Wind Facility indicate that Deerfield Wind project area can definitely support the 34 MW project. The generally north-south oriented ridgelines are well situated to capture the persistent westerly wind flow. The long-term average wind speeds of greater than 17mph (7.5 m/s) are well within the desired operating wind speeds of the Gamesa 2MW wind turbines selected for this project.

VERMONT SKI AREAS ON NATIONAL FOREST LANDS

Did you know that large portions of well-known, privately owned Vermont ski areas, including Mount Snow, Sugarbush, and Bromley, are located in part on Forest Service lands? These commercial developments, the recreation opportunities they provide, and the special use fees that they pay for using Green Mountain National Forest lands, are all part of the diverse use and management of our national forests.

WHO DECIDES IF THE DEERFIELD WIND PROJECT WILL ACTUALLY GO FORWARD?

The Deerfield Wind project layout is proposed on both National Forest Service lands and a smaller portion of private lands. As such, we have applied for a special use authorization (permit) from the United States Forest Service. The evaluation of this permit application is being conducted under the National Environmental Policy Act (NEPA). As a result, an Environmental Impact Statement is being prepared.

<http://www.epa.gov/compliance/nepa/index.html>

Deerfield Wind also has submitted a permit application to the Vermont Public Service Board (PSB) in accordance with Section 248 of Title 30 of the Vermont statutes. The PSB is charged with the review of all electric generation facilities in Vermont, regardless of their fuel source. A positive §248 review will result in the issuing of a Certificate of Public Good that will allow the project to move forward. Much of the same project-specific information required for the §248 review is also required for the federal NEPA process and, in the case of the Deerfield Wind project, the permitting approval process is occurring simultaneously.

http://www.state.vt.us/psb/document/Citizens_Guide_to_248.pdf

These independent public processes review the project in order to determine if it is in the public's good interest. The project will need authorization through both processes in order to be constructed and operated. The studies, findings, and most other information generated in both reviews are

VERMONTERS FAVOR WIND POWER

In a 2005 statewide survey, Green Mountain Power asked its customers if they supported the use of wind turbines as a method for generating electricity in Vermont.

61% strongly supported wind farms, while 10% strongly opposed them, a support ratio better than 6:1.

When asked in a follow-up question about wind turbines being visible, support dropped to 53% and opposition rose to 17%, a support ratio of 3:1.

considered part of the public record. To obtain this information at the state process level please see the Public Service Board's web site <http://www.state.vt.us/psb>. To obtain information regarding the key documents for the NEPA process, please contact the Forest Service at 802-362-2307.

Final decisions are expected by Fall 2008.

HOW IS GREEN MOUNTAIN POWER (GMP) INVOLVED?

Green Mountain Power Company owns and operates the neighboring Searsburg Wind Facility. GMP has no ownership interests in Deerfield Wind but is negotiating a long-term, fixed-rate power purchase agreement with PPM to buy at least 50% of the energy generated by the Deerfield project for their Vermont electric customers. PPM hopes to secure other Vermont-based purchasers of Deerfield's power so all of the power can be used locally.

MUST THE WIND TURBINES BE LIT?

Federal Aviation Administration (FAA) regulations require that structures over 200 feet be lit for aircraft safety. The good news is that the FAA has reduced its requirement that every turbine in a string must be lit. We estimate as few as 7-8 turbines out of 17 will have a single pulsing red light on the generator housing, also known as the “nacelle”—not on rotor tips. The FAA also requires that red lights flash between 20 and 40 times per minute. Deerfield Wind will use lights which flash 20 times per minute.

WHY CAN'T DEERFIELD WIND USE SHORTER TURBINES THAT DON'T REQUIRE LIGHTS?

Shorter wind turbines, such as those at the existing Searsburg Wind Facility installed more than a decade ago (550kW), are not as efficient as the new, taller, larger generating wind turbines primarily because the newer wind turbines can more effectively utilize higher wind speeds available at higher heights above the ground. As a result, the majority of the shorter wind turbines are no longer



Maple Ridge Wind Farm in Lowville, NY

being manufactured, including the model used at Searsburg. In addition, the cost of development and infrastructure today mean these shorter turbines are generally no longer financially viable for utility-scale wind farms. Larger turbines also offset more green house gas pollution from a smaller project footprint.

DEERFIELD WIND WILL PRODUCE ONLY A SMALL AMOUNT OF VERMONT'S TOTAL ELECTRICITY NEEDS. WHY BOTHER?

Wind development in New England is likely to consist of smaller projects, instead of much larger projects seen in Midwestern and Western states. Overall the contribution of wind-produced electricity is expected to grow considerably and become an important source of clean power both for Vermont and New England. Right now, approximately 975 megawatts of wind power is either operating or going through permitting processes within our New England electric system. Deerfield Wind will generate the equivalent of the average annual electricity needs of approximately 14,000 Vermont households – a little less than the 18,375 households

DIRTY ELECTRICITY

“Coal generates 54% of our electricity, and is the single largest air polluter in the United States. A typical (500 megawatt) coal plant burns 1.4 million tons of coal each year. There are about 600 U.S. coal plants. Coal pollutes when it is mined, transported to the power plant, stored, and burned.” – Union of Concerned Scientists

(year 2000 census) in Windham County. State energy planning experts agree that wind can make a significant contribution to Vermont's future energy needs, possibly providing 15% - 20% of our needs as more plants are developed in the region over the next 12 – 15 years.

HOW MUCH NOISE WILL DEERFIELD WIND TURBINES GENERATE?

The noise of wind moving over turbine blades does generate noise, but when carefully sited, projects like Deerfield's modern wind turbines meet or exceed applicable noise standards and guidelines. To ensure that sound levels near the project area will be in compliance with accepted guidelines, PPM conducted a noise study in which background (ambient) noise was monitored near the project area and was measured at an average hourly range between 40dBA (decibels) at night and 60dBA during the day near local residences. The noise study model then added the noise from the project (using manufacturers' noise specifications) to the ambient background noise, which included the existing Searsburg wind turbines. Results show that the project would be in compliance with the World Health Organization's recommended nighttime guideline for protection against sleep disturbance of 45dBA averaged over an 8-hour night. For complete text of the noise analysis, please see www.ppmenergy.com/deerfield.html

WHAT ABOUT "SHADOW FLICKER" FROM THE TURBINES' ROTORS?

At certain times of the day, when the sun is shining and low on the horizon, shadow flicker can occur and, in the absence of any vegetation shielding, be noticeable to

GREENPEACE USA ON WIND POWER

"If we don't switch to cleaner forms of energy, climate change will severely and irrevocably alter much of our landscape as well as the animal and plant life it contains. And in the United States, over 24,000 people are dying prematurely each year because of dirty power plant pollution – we obviously need to change our energy sources fast, and wind provides a clean, safe alternative." – Greenpeace USA

nearby residences. As with sound, careful analyses and siting of wind turbines can eliminate this as an issue. The results of this analysis are also available on the project web site at www.ppmenergy.com/deerfield.html

ARE THERE NEGATIVE HEALTH EFFECTS FOR PEOPLE WHO LIVE NEAR WIND TURBINES?

Wind energy is the leading new electric generating technology that is improving the air quality and contributing to improved health of all humans. Though concerns surface from time to time that wind turbines could produce adverse health effects on people living nearby, no scientific studies have substantiated any adverse impacts, anywhere.

WILL DEERFIELD WIND TURBINES INTERFERE WITH TV SIGNALS FROM ALBANY?

Historically there have been a few reports of wind turbines interfering with analog TV signals. Whereas newer blade technology

and enhanced digital reception have reduced interference, there remains the possibility that interference can occur. The FCC's mandate to transition all off-air television broadcasts from analog to digital signals by February 2009 should eliminate any turbine-related contrast variation before the project is even built. However, Deerfield Wind is currently studying the extent to which interference may occur to analog signal reception. In the event interference occurs, PPM works directly with the individual to resolve the problem.

WE'RE CONCERNED THAT DEERFIELD WIND WILL HAVE A NEGATIVE IMPACT ON PROPERTY VALUES AND TOURISM IN THE AREA.

Since 1997, when the Searsburg Wind Facility was installed, there's been a steady rise in property values in Searsburg and surrounding towns. A government-funded scientific study conducted in 2003, *The Effect of Wind Development on Local Property Values*, prepared by the Renewable Energy Policy Project (REPP), examined 25,000 real estate transactions within five miles of ten wind farms built in

the United States between 1998 and 2001. In a majority of cases, properties that had a view of wind turbines appreciated in real estate value more quickly than nearby properties that did not have a view of the wind turbines, according to the study. A more recent study conducted by Ryan Wisler and Ben Hoen of Lawrence Berkeley National Laboratory found that data from 3,638 home sales transactions near 6 communities with wind projects (two in upstate NY, two in Pennsylvania, and one each in Iowa and Illinois) indicated no effect on sales price from proximity to wind projects.

With regard to tourism, anecdotal reports indicate that Searsburg's wind turbines have been a source of considerable interest to area visitors. Educational tours conducted by GMP are filled as quickly as they are announced and people stop daily at the informational kiosk at the base of the facility.

IN WHAT OTHER WAYS WILL THE AREA ECONOMY BENEFIT FROM THE PROJECT?

Unlike fossil fuel-fired generation, which now occupies a prominent position in the New England electric system and sends a lot of revenue out of state, wind power facilities will contribute significantly to the local economies. Many significant business opportunities are created for local contractors during construction and several local jobs will continue through the project's operation. Deerfield Wind has already invested in many Vermont based firms to help study this project. Perhaps just as importantly to the communities in which the project is sited, Deerfield Wind will make significant tax payments without the need for corresponding outlays

SIERRA CLUB ON WIND POWER

"Today, we have the technology and the know-how to move beyond our dependence on polluting power plants by using clean, safe, and affordable renewable energy. By harnessing renewable sources of energy like the sun and the wind, we can transform how we produce electricity."

—Sierra Club, "Clean Power Comes on Strong"

of town services. Deerfield Wind will be a substantial investment that will result in hundreds of thousands of dollars in local property tax payments to the towns of Searsburg and Readsboro, and a comparable level of payments to the State of Vermont for education property taxes. Currently, PPM is in negotiations with the Towns of Searsburg and Readsboro to work out the details of these payments, which will occur for the life of the project.

WHO ARE PPM AND ITS NEW PARTNER, IBERDROLA?

PPM Energy has developed and now operates more than 1,760 megawatts of wind energy in the United States. PPM Energy is part of the Iberdrola family of companies. Iberdrola is one of the largest owners and operators of renewable energy facilities in the world.

HOW MUCH LAND DISTURBANCE WILL ACTUALLY OCCUR AS A RESULT OF PERMITTING AND CONSTRUCTION OF THE DEERFIELD WIND PROJECT?

The Deerfield Wind project has applied for a special use authorization (permit) of up to 80 acres of Green Mountain National Forest land. Approximately 68 acres of GMNF and 4 acres of private lands are needed for access and service roads for the turbines, and pads for the crane, for the electrical collector system and interconnection lines, and the associated facilities such as the proposed substation, maintenance shed, and temporary work areas. After the initial clearing for construction many of the areas will be allowed to revegetate thereby further reducing the impact.



Photograph of existing Searsburg Wind Facility from Town Road Whitingham with photosimulations of Deerfield Wind

SUPPORT DEERFIELD WIND!

Wind power is a new technology that has proven itself as a reliable, clean, and economical source of electric generation. While these characteristics and the attendant public health benefits ensure wind's success over the long-term, pioneering developments like the Deerfield Wind project need local support and promotion to become reality. It represents an important clean, new electric generation source for Vermont and the New England Power grid that will benefit us all with cleaner air and reduced production of greenhouse gases. Additionally, it will provide substantial benefits to the local and regional economies. The project will help establish clean electrical generation in the years to come, thereby supporting state and regional planning and public policy initiatives that have been designed with the goals to not only clean up our air, but to stabilize fuel prices and reduce our dependence on fossil fuels for electricity production.

WANT MORE INFORMATION ON DEERFIELD WIND?

We are very interested in your comments and questions regarding the Deerfield Wind project.

FOR INFORMATION ABOUT THE DEERFIELD WIND PROJECT

Neil Habig, PPM Energy

Phone: 609-466-1475

Email: Neil.Habig@ppmenergy.com

Kristen Goland

Phone: 508-397-6130

Email: Kristen.Goland@ppmenergy.com

OR

Sam Bittman

Email: Sam.Bittman@verizon.net

FOR INFORMATION ABOUT THE FOREST SERVICE REVIEW

Bob Bayer, Deerfield Wind Power

Coordinator, GMNF

Phone: 802-362-2307 ext. 218

Email: Rbayer@fs.fed.us

FOR INFORMATION ABOUT THE SEARSBURG WIND FACILITY

Dorothy Schnure, Green Mountain Power

Phone: 802-655-8418

Email: Schnure@greenmountainpower.biz



Photograph of existing Searsburg Wind Facility from Harriman Reservoir, Wilmington with photosimulations of Deerfield Wind

