

# Blue Spruce Farm



**Location** Bridport, VT

**Description** Net metered 100 kW distributed wind generation system at a dairy farm.

**Model** NPS 100-24, 37 meter tower

**Major load centers** Milking parlor, fans in the barn that circulate air and keep the cows comfortable.

**Average wind speed** 5.2 m/s (about 11.6 mph)

**Energy produced per year** 176,000 kWh annually

**Annual carbon offset** 132 tons

## First Vermont Cow Power Farm Now Also Capturing Wind Energy

The first farm in Vermont to put Cow Power on the electric grid is now capturing energy from the wind. Blue Spruce Farm produces over 4 million gallons of top quality milk each year, which is used to make locally produced Cabot Cheese. The family crops 3,000 acres to feed their dairy cows. In 2006 they became the first farm in Vermont to turn cow manure into electricity with a methane digester, and they generate 2.5 million kilowatts of electricity annually for their community.

**“The Audet family led the way with Cow Power, so it was logical for us to approach them when we were looking for a partner to host a community-scale wind turbine. As far as we know, Blue Spruce is the only farm in the US that’s producing renewable electricity from cow power and from wind power.”**

- MARY POWELL, PRESIDENT AND CEO OF GREEN MOUNTAIN POWER, THE LOCAL ELECTRIC UTILITY WHO OWNS THE TURBINE

The Northern Power 100-24 was installed in March 2013, just one month after ground breaking. With the wind blowing off Lake Champlain, the location is ideal, and the NPS 100 is expected to generate 176,000 kWh power per year for the farm and the community. As part of the partnership with Green Mountain Power, Blue Spruce Farm will receive a portion of the power produced through net metering, making the NPS 100 turbine a good financial decision for both Blue Spruce Farm and GMP.





### Sustainability: Today and Beyond

Blue Spruce Farm's two Cabot Cheese plants are owned by the Audet's and other local farm families, employing over 575 people, while providing a valuable market for Vermont milk and global distribution of international award-winning cheddar cheese. Blue Spruce Farm is proud of their heritage, commitment to community, and being an integral part of the Cabot Co-Op making the World's Best Cheddar.

### The Wind Turbine for Blue Spruce Farm: NPS 100-24

The Audet family has been farming in Bridport since 1958. They are committed to practices that reduce costs, energy use and waste, with a focus on protecting the environment and improving the health and comfort of their cows. Harvesting the wind that blows across the fields for electricity fits naturally with what they do.

**RELIABLE TECHNOLOGY** The turbine's innovative low-maintenance, gearless design allows the Audet family to stay focused on what's important—their hard working girls (the cows of course!) The robust, reliable design coupled with Northern Power's fleet availability of over 98 percent, 24x7 monitoring and local service assured the Audet's that their turbine will continue to perform for many years to come.

**THE "GREENING" OF BUSINESS** Blue Spruce Farm values green business practices, and was the first farm in the state to install a Cow Power bio-digester, naturally processing all the waste from the farm and using the methane gas produced to power generators that push electricity into the grid. Adding the wind turbine to their environmentally friendly farm was a natural expansion of their business.

**REDUCE CARBON FOOTPRINT** Using wind power replaces fossil fuels and contributes positively to sustainability.



### Good stewards of the land

Demonstrating the future of renewable energy is a big part of the secret to their success and the Audet family is always ready to try the next great thing. The family has a real sense of the environment and how to use technology to do a better job to make quality dairy products available to everyone.

Feasibility, engineering, and installation services for the Blue Spruce Farm installation were performed by Aegis Wind.



29 Pitman Road,  
Barre, VT, USA 05641

222 Third Street, Suite 3300,  
Cambridge, MA, USA 02141

Thurgauerstrasse 40  
8050 Zurich, Switzerland