

Georgia Mountain Community Wind August 2012

Georgia Mountain Community Wind LLC (GMCW) is a locally owned and developed wind power project that will provide a long-term source of clean power along with economic and environmental benefits to Vermonters. This renewable energy project will harness the power of the winds flowing across the Champlain Valley using 4 wind turbines, 2 in Milton and 2 in Georgia, and will generate approximately 27 million kilowatt hours of electricity annually -- roughly equivalent to the needs of over 4,200 average Vermont households. The approximately \$28 million project will have a total electric rated capacity of 10 megawatts. This pollution free energy is expected to displace the production of approximately 12,700 tons of carbon dioxide emission (2010 marginal emissions rates on the regional electric system). In addition, the landowner is conserving over 100 acres of land in perpetuity. GMCW has a long-term stably priced contract with Burlington Electric Department for all the electrical output and environmental attributes. This is approximately 30% of BED's annual residential usage.



GMCW's footprint and major components are identified in the above aerial photo taken May 19, 2012. (Source: Google Earth)

Construction in Progress and Turbine Deliveries Scheduled



J.A McDonald's crews excavate a storm water detention pond.

Spring and summer on Georgia Mountain have been busy. Depending on the work underway, 45-65 people are working on the site, with over a dozen off-site contractors and consultants directly supporting the engineering, construction, and transportation work. Since the project received its "Certificate of Public Good" from the Vermont Public Service Board last summer, a wind turbine supplier and balance of plant contractor were selected. Tree clearing of approximately 33 acres for the 1.8 miles of service road, 2.4 miles of 34 kV electric collector line, and wind turbine 'pad' sites took place in early May. By way of comparison, if this same acreage was developed with solar voltaic trackers, it would require roughly 3,100 trackers and produce approximately one fifth the amount of electricity.

Construction of the service road, storm water runoff features and erosion control systems followed and will be completed in late August/early September. All rock material used in construction is being obtained and produced onsite. A recent inspection by the VT Agency of Natural Resources and our experience with summer storms shows the erosion control measures are working well.

Construction and installation activities for the wind turbine foundations and electrical collection system, including several new pole placements along North Rd from Husky Manufacturing to Georgia Mountain Maples sugarhouse, are beginning to gear up now and are scheduled to be completed in late September/early October.

Wind turbine components (tower sections, blades, generators, nacelles, and electronics) are scheduled to begin arriving in late September/early October. Testing and commissioning of civil, mechanical, and electrical systems will take place in October/November. The project is scheduled to be in service this December.

As the site work progresses, wind turbine components are being manufactured in different locations around the world. U.S. wind turbine parts comprise over 60% of the turbine's components, manufactured in Arkansas and Tennessee plants. The generator and certain electrical components are presently en-route from China and Finland. As parts begin to arrive, some larger components will be staged at an area along route 104A before being transported to the top of the hill once the turbine foundations are ready to receive them.



The Harrison Family, Jim, Janet, Kathy and Kevin have been promoting locally produced renewable energy for years.

Local Ownership and Local Funding

Georgia Mountain Community Wind is a partnership between two life- long native Vermont business owners with a passion for home-grown sustainable energy – The Jim Harrison Family and David Blittersdorf.

Over 6 years ago, Jim Harrison and his family began investigating the wind electric generating potential on Georgia Mountain and implementing wind resource, environmental, and feasibility studies. The Harrisons of Georgia, VT own and operate their 3rd generation businesses of Harrison Concrete Const., and Redi-Mix Corp., and more recently started Georgia Mountain

Maples, a maple sugaring operation co-existing on their property around the wind project. Early on, the Harrisons received two matching grants from Vermont’s Clean Energy Development Fund, to help fund initial feasibility studies. Several years and volumes of studies later, they led the project through the state’s rigorous permitting processes.

Earlier this year, David Blittersdorf assumed a majority ownership in GMCW. David is a lifelong Vermonter and is CEO of AllEarth Renewables, a successful manufacturer and developer of wind and solar energy systems using the Earth Turbine and AllSun Tracker technologies. David is also the founder and previous owner of NRG Systems in Hinesburg, VT. For his work at AllEarth Renewables and its solar tracker, Blittersdorf was recently named by *Business Week* as one of 25 of “America’s Most Promising Social Entrepreneurs.” AllEarth Renewables was Vermont’s fastest growing business in 2010 and 2011 and named 2012 Business of the Year by the Lake Champlain Regional Chamber of Commerce.

In addition to the owners’ equity, the Merchants Bank, the only independent statewide banking company in Vermont, is providing construction and long-term debt financing for this Vermont renewable energy project.



David Blittersdorf, the managing member of GMCW, LLC surveys progress during a July site inspection.

Local Jobs and Key Contractors

From the beginning, it has been a priority of the owners to use local expertise, labor and supplies to the extent practical. Jim and David turned to Northeast Wind, a Waterbury-based wind power consulting firm, to represent their interests throughout the development, permitting, procurement and construction activities, with Martha Staskus serving as their Project Manager.

Northeast Wind has over 30 years of experience in commercial wind development, project management and construction oversight in the region. J.A. McDonald, based in Lyndonville is constructing the service road, turbine pads, and underground collection system. This firm has considerable experience with heavy construction projects in Vermont’s mountain environments including the Kingdom Community Wind Project in Lowell. Construction activities are being overseen by the Cianchette family business, Cianbro Corporation, headquartered in Maine, who brings extensive experience with construction of large infrastructure projects, including New England wind power facilities.



Bill Lovely, Cianbro Construction Sr Project Manager, reviews plans with Martha Staskus, Owner’s Representative.



Chris Davidson, Site Work Superintendent for J.A. McDonald, Lyndonville, Vermont.



Site clearing work for the service road to the northern two turbine sites is made ready for excavation. Clearing work was done by Doug Edwards Timber Harvesting from Cambridge Vermont.



Drilling rigs work to prepare a wind turbine foundation site at the top of the mountain with Lake Champlain in the background.



First concrete footing is poured for turbine 3 on July 25th.



J.A. McDonald bulldozer setting the rough grade for the service road. Erosion control measures are undertaken in parallel with construction to ensure minimal impacts from run-off.



A newly completed storm water retention pond midway up the service road is the largest of four reservoirs constructed.



Rock anchor rods protrude approximately 8 feet from the footing for a turbine foundation. Rebar will be installed inside the ring of anchor rods before the concrete foundation is poured nearly to within 1 foot of the top of the rods.

Safety

Safety is the #1 concern during construction and is taken very seriously by everyone involved with the project. In preparation for construction, Cianbro Construction facilitated emergency response logistics planning with Milton Fire and Rescue. After touring the site, an emergency response meeting place was established and protocols for action were identified. Happy to report - not needed to date – although we certainly appreciate the planning.



Milton Fire and Rescue representatives meet on site with Cianbro Construction in early June.

What's Ahead and Your Questions...

As work progresses into the fall season, we will keep you updated with future newsletters that will include progress updates and focus on wind energy. Next month, we will share more information about the Goldwind 2.5 megawatt, 426 ft. tall turbines with 262 ft. hub-heights and 328 ft. diameter, three-blade rotors being used in this renewable energy project.

The GMCW Construction Information Line (802-242-1476) has been active since the beginning of construction. Please feel free to contact Martha Staskus with any questions or comments. Email is typically the quickest way -- marthas@northeastwind.com.

Thank you all.

Georgia Mountain Community Wind

Other businesses and services who are contributing to the success of this renewable energy project:

Northeast Wind	Waterbury Center, VT
Cross Consulting Engineers	St. Albans, VT
Cianbro	Pittsfield, ME
J.A. McDonald	Lyndon Center, VT
Greenleaf Consulting	Westford, VT
Doug Edwards Timber Harvesting	Cambridge, VT
RLC Engineering	Augusta, ME
Thomas Drilling & Blasting	Spofford, NH
NRG Systems	Hinesburg, VT
Alpha Testing & Engineering	Milton, VT
Terracon	Manchester, NH
J.F. Gray Associates	Portsmouth, NH
Central Vermont Public Service /Green Mountain Power	Rutland, VT
Dunkiel Saunders Elliott Raubvogel Hand	Burlington, VT
Downs Rachlin Martin	Burlington, VT
Stantec Consulting	South Burlington, VT
WEST, Inc.	Waterbury, VT
Northern Economic Consulting	Westford, VT
Resource Systems Group	Burlington, VT
Patricia C. Billings Consulting	West Rutland, VT
UVM Archaeology Program	Burlington, VT
Arrowwood Environmental	Huntington, VT
Liz Pritchett Associates	Montpelier, VT
Landworks	Middlebury, VT
Vermont Center for Ecostudies	White River Jct., VT
Addison Consulting	Middlebury, VT
Milton Building Supply	Milton, VT
The Dam Store	Milton, VT
Steeple Market	Fairfax, VT
Buy Monthly Publishing	Waterbury Center, VT
Maple Grove Campground	Fairfax, VT
Nye's Green Valley Farm B&B	Jeffersonville, VT
Days Inn	Colchester, VT
Handy's Extended Stay Suites	Colchester, VT
Motel 6	Colchester, VT
Lund Rebar Services	Winthrop, MA
3-Phase Line Construction	Farmington, NH
Rene's Irving Gas & Deli	Milton, VT
And, numerous other local service businesses.	