# Where we are at the end of November

The remaining wind turbine components arrived on-site, in particular the sixteen tower sections (four for each wind turbine) by the end of the month. As these were delivered, the raising of the wind turbine components from ground level up – four tower sections, then nacelle, generator and rotor assembly (the three blades attached to a hub) - began. By the end of the month, three of the four wind turbines were "flying rotors." Generally, and fortunately for the construction crews, November weather conditions were milder than normal, enabling steady progress throughout the month. Work this month has set the stage for energizing the electrical systems and commissioning the wind turbines in December.

Large turbine parts arrive for assembly make for a busy construction site in early November.

## Wind Turbine Installation



A construction worker guides the offloading of a tower section near the turbine pad.

The main event this month was lifting the wind turbine components. The first tower base section was 'set' at Site #2 in Georgia on a chilly November 3<sup>rd</sup>. Over the next couple days, the remaining sections were added, standing approximately 256 feet tall. Then, the wind turbine nacelle was placed atop the tower. On the next calm-wind day, the donut-shaped permanent magnet direct drive generator was attached to the nacelle, and finally the rotor assembly was 'flown' with the hub being attached to the outside of the generator. With the tip of the rotor blade in its highest position, the wind turbines stand approximately 426 feet. At this point, FAA was notified that the turbine was erected and their prescribed lighting on



The first rotor is hoisted in to position at Site #2 on a crisp, clear November 14th.

repeated for the three other turbines. By the end of November, three of the four wind turbines were fully assembled, with the tower sections of the 4<sup>th</sup> wind turbine being readied for installation.

top of the nacelle was activated. Under calm wind conditions, this serial process was



Technicians sit on top of and inside the generator guiding the rotor as it is lifted into position.

While the assembly of the wind turbine components may be the most visible activity on the site these days, there are numerous other tasks being wrapped up. The final details, tasks and testing necessary for safely energizing the electric collection system were underway. Crews from GMCW's electric line installation company, 3-Phase Line Construction, Farmington, NH and I.C. Reed, Raymond, NH and the



The Manitowac 16000 crane, with its 31' track crawls to the next wind turbine pad site.

interconnecting utility, Green Mountain Power and Fairpoint communications and FiberNext, Concord, NH all worked together to complete punch list items, and test GMP's upgraded power line extension from the Husky Injection Modeling facility driveway along North Road to the interconnection point of GMCW's electric collection line to the wind turbines and the fiber optic communication systems.

With the last large transport loads on site, J.A. MacDonald site construction excavators, dump trucks and graders and the landscaping crews narrowed the access road surface, installed storm water features, and stabilized the site for winter. When access allows, and growing conditions return, crews will return to revegetate and further reduce the project's 'foot print'.

# **Community Interest**



Katherine Norris of Milton, who lives near Lake Arrowhead, captured this photo of two wind turbines, backlit by the morning sunrise on Nov 23.

As the turbines became a visible feature on the local landscape, interest from individuals and groups grew. A few "regulars" call the GMCW Construction Line to check-in; nearby school classes and administrators want to bring students to include GMCW in their curriculums; and the local weekly newspaper, the Milton Independent has started a photo contest.

After an Earth Science class from Bellows Free Academy in Fairfax did not see the rotor assembly go up during their morning tour, they were able



Students from Bellows Free Academy High School tour the site on November 14th as part of their Earth Science class studies, taught by Tom Lane.

to watch it "fly" from their classroom later that afternoon. Franklin West Superviory Union (fswu.org) later blogged about the students' field trip and created a video slideshow of pictures from their hands-on learning experience. Georgia schools STEM (Science/Technology/Engineering/Mathematics) Coordinator and parents have withstood the very cold temperatures in late

November to gather construction footage and answers to student-prepared questions. Planning for a future Skype session and class tour are just some of the creative events teachers and community members are welcoming GMCW.



Terri Hallenbeck (right), Burlington Free Press reporter, and David Blittersdorf (left) pause for a photo while a nacelle goes up behind them.

Television reporters and print journalists have visited the construction site and requested access to construction and component delivery events. Courtney Lamdin, Milton Independent reporter provided her readers extensive photo coverage of the construction activities after a first-hand afternoon observing tower section arrivals. By the end of November, Milton Independent (<a href="https://www.miltonindependent.com">www.miltonindependent.com</a>) editors were asking readers to submit their "creative captures of Chittenden County's first commercial wind operation going up right in your backyard" with the best photos to be selected for publication in January. GMCW has arranged with editors to provide a personal tour for their selected winner.

# The Project

Georgia Mountain Community Wind's 10 megawatt wind power project is locally owned and developed and will provide long-term, clean power along with economic and environmental benefits to Vermonters. The 4-wind turbine, renewable energy project will harness the power of the winds flowing across the Champlain Valley with two turbines in Milton and two in Georgia and generate the annual electric usage of approximately 4,200 average Vermont households. GMCW is the first commercial-scale wind project in Chittenden & Franklin Counties. The Burlington Electric Department will utilize its electrical output and environmental attributes. The project uses land owned by the Harrison Family of Georgia and Green Crow Corporation, a timber products company locally based in Waterbury, Vermont.

### Questions and Contact.....

The GMCW Construction Information Line (802-242-1476) remains available, providing 24/7 message access to key project personnel. Project owners, David Blittersdorf and The Harrison Family, along with the project team, again thank the surrounding communities and busiensses and services for all the ongoing support and contributions to the success of Georgia Mountain Community Wind.

Stay tuned for December's Update,

Martha Staskus, Project Manager, Northeast Wind