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Wind turbine commissioned at Applied Materials Varian Semiconductor Equipment site

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Applied's Varian Semiconductor Equipment business unit successfully commissioned a 2.5 megawatt wind turbine at their Gloucester, Mass. site—one of the largest turbines on the eastern seaboard at one of the strongest land-based wind production sites in the state. The $7.5 million capital project required approximately a dozen, local, state and federal permits in order to allow its construction and is believed to be the largest distributed generation project in the Commonwealth and largest single turbine on the East Coast. Boreal Renewable Energy Development supported Varian throughout the development cycle for this project and believes it to be the largest behind-the-meter project in New England. The installation of the wind turbine will supply greater than 30% of the site's electricity and reduce site operating expenses by more than $1 million annually. What's more, 99% of the power generated by the turbine will be used on-site, resulting in a 34% projected reduction in CO2 emissions—greatly reducing Applied's carbon footprint. As only one of only a handful of private wind turbine projects in Massachusetts, Applied will provide city officials with access to the research, technology, and the turbine itself, serving as an "on-site laboratory" to leverage learnings and resources. The Kenersys K-100 turbine measures 100 meters in height (as tall as a 30-floor building), with a 100 meter rotor diameter and a vertically aligned tip of blade at ~492 feet elevation. The eligibility for the wind energy Production Tax Credit (or a 30% tax credit in lieu of the PTC) was extended as long as the project initiates construction in 2013 as part of the recent Federal tax bill of December, 2012. In addition, the Massachusetts Clean Energy Center has provided a program for feasibility study grants and expects to issue design and construction grant program to further support wind energy. Therefore, significant economic and environmental benefits can still be achieved at commercial/industrial sites that fit the following criteria: (1) significant electrical demand or the ability to net meter; (2) located in windy areas with good buffer and (3) an internal champion willing to advance the project through all of the necessary hurdles. Once examined, the benefits of a wind turbine project are highly positive and especially rewarding for a variety of commercial/industrial properties as long as there is the will to move forward in the first quarter of 2013 to meet the Federal tax eligibility requirement deadline.

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