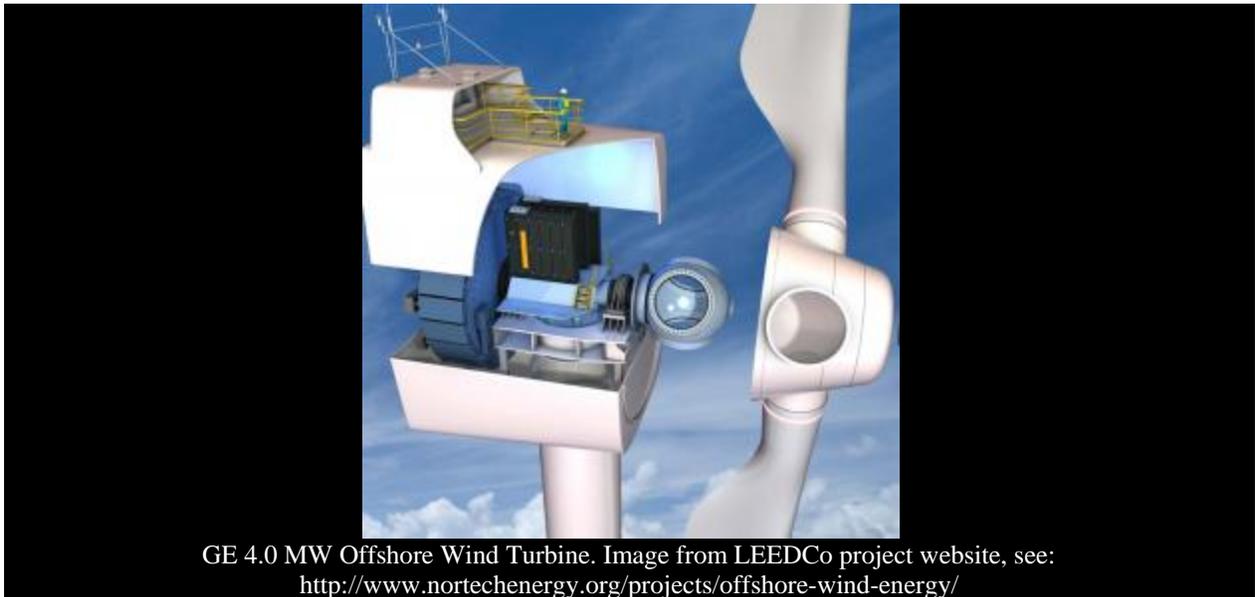


# ENERGY ON THE HORIZON: OFFSHORE WIND TURBINES SCHEDULED FOR CLEVELAND



CLEVELAND, OH – At the American Wind Energy Association’s annual trade show in May in Dallas, Ohio Gov. Ted Strickland announced plans for the placement of five wind turbines in Lake Erie by 2012. This pilot project features a unique partnership between the Lake Erie Energy Development Corp. (LEEDCo), a non-profit corporation in Cleveland, and General Electric—and would result in the first operating off-shore wind farm in the U.S.

The wind turbines that Clevelanders will see in Lake Erie in the not too distant future will be GE's next generation wind turbine, a 4 megawatt machine designed specifically for offshore deployment.

Five, 4 megawatt machines will be installed totaling 20 megawatts which is capable of powering about 5,000 homes. These turbines, the largest in GE's fleet, are gearless, direct-drive wind turbines that feature innovative advanced loads controls and aero-elastically tailored blade technology.

If all goes as planned, we can expect to look north and see clean, renewable energy in Lake Erie by 2012. And if things continue to go smoothly, LEEDCo and GE say we can expect to have hundreds (1,000 MW) of these turbines spinning over the horizon off the shores of Northeast Ohio by 2020.

There are only seven offshore wind projects underway in the U.S. according to AWEA's 2009 Annual Report. The Northeast Ohio project is the only one planned in the Great Lakes, a sign that the project may in fact be the first freshwater wind farm in the U.S.

Strickland said, "Ohio's greatest potential for creating wind energy is offshore in Lake Erie, and this partnership marks a significant step forward. In Ohio, we have all the right assets to make offshore wind energy successful, including an innovative workforce and the manufacturing strengths that would allow us to build all the component parts for wind turbines.

This partnership will not only advance offshore wind technologies, it will also advance Ohio's economy. We are eager to continue the state's strong collaboration with GE and LEEDCo as we pursue this exciting, first-of-its-kind initiative for Lake Erie."

In addition to collaborating on the initial 20-megawatt project, GE and LEEDCo will create a strategic plan to identify opportunities for cost reduction to make offshore wind energy in the Great Lakes economically viable. GE and LEEDCo will also work jointly on advocacy and public policy issues to increase support for offshore wind energy, and accelerate the growth of America's offshore wind industry.

"LEEDCo is pleased to be working with GE and we value the equipment efficiency, product innovation, and commercial acumen they bring to the partnership," said Dr. Lorry Wagner, president of LEEDCo. "Together, we aim to develop a cost-effective approach for installing and maintaining offshore wind turbines with the highest possible availability. We are confident that as the GE product line develops and our methodologies mature, the combination will promote a self-sustaining and growing market for offshore wind in Lake Erie and the Great Lakes, providing economic opportunity and emissions-free energy for Northern Ohio."



Image from Lake Erie Energy Development Corporation (LEEDCo) website. see:  
<http://www.nortechenergy.org/projects/off-shore-wind-energy/>

The plans to develop an off-shore wind farm on Lake Erie have been underway for more than four years. In 2009, a feasibility study was completed that included data regarding off-shore wind farms and how to integrate into Lake Erie, including benthic conditions; fisheries data; avian populations and habitat; geophysical and geotechnical data; cable routing, installation and bottom considerations; shipping lanes, sailing courses, salt mine location and interaction; Federal Aviation Administration requirements; viewshed and view simulation; icing data; electrical grid interconnection; wind data analysis; underwater cultural heritage; and analysis of local, state and federal agency requirements. At present, an avian radar platform and anabat acoustic system has been placed on the Cleveland Water Department intake crib. This equipment and methodology have been used worldwide for siting wind farms both onshore and offshore. During the summer of 2010 an underwater cultural heritage and fisheries survey is planned. The area under consideration will include the proposed turbine locations and several cable paths.

In addition, one or more soil borings are planned so that exact geotechnical data can be obtained for foundation design. LEEDCo, based in Cleveland, Ohio, is a regional nonprofit economic development corporation, leading efforts to build, install, and deploy an offshore wind farm on Lake Erie while spurring economic development in Northern Ohio's wind energy industry. LEEDCo stems from the efforts of the Great Lakes Energy Development Task Force, chaired by Cuyahoga County Prosecutor Bill Mason, to explore offshore wind. LEEDCo's founding partners include the Cleveland Foundation, the City of Cleveland, Cuyahoga County, Lorain County and NorTech. NorTech Energy Enterprise, an initiative of NorTech, led the effort to launch LEEDCo, which was incorporated in late 2009.

Source: <http://www.publicherald.org/archives/6769/investigative-reports/energy-investigations/>