

United States Senate
WASHINGTON, DC 20510

July 9, 2012

The Honorable Steven Chu
Secretary of Energy
1000 Independence Avenue, S.W.
Washington, DC 20585

Re: *New England Aqua Ventus I* proposal; submitted under the solicitation DE-FOA-0000410 Offshore Wind Advanced Technology Demonstration Projects

Dear Secretary Chu:

We write to express our strong support of an innovative and exciting proposal that has the promise to harness the abundant, offshore wind in New England to create clean, affordable energy. The proposal, titled *New England Aqua Ventus I*, presents an unique opportunity to advance new technologies for deepwater floating offshore wind energy through the deployment of a 12 megawatt (MW) pilot floating wind farm. This forward-looking project will provide the necessary data and operating experience to support the potential development of a 500 MW commercial offshore wind farm off the coast of New England with an electricity target of 10.8 cents per kilowatt hour by 2020.

The project team, comprised of New England and global leaders, has the expertise and experience in wind development, turbine manufacturing, marine construction, grid connectivity, and large-scale testing/demonstration to overcome the many challenges to building and deploying a pilot floating wind farm within the aggressive time schedule established by the Department. *New England Aqua Ventus I* utilizes the expertise of the Universities of Maine and Massachusetts as well as the Maine Maritime Academy; Iberdrola, the largest wind developer in the world; Ershigs, Inc, the largest composite material fabricator in the U.S.; Central Maine Power, the largest utility in Maine; T. Y. Lin International, the world leader in pre-stressed concrete design; Cianbro and Bath Iron Works, two of the largest businesses in Maine; the Portsmouth Naval Shipyard, which could be an off-taker of electricity; and Technip, which manufactured the first floating wind turbine hull in the world and deployed all but one of the floating oil and gas production spars in the world. This team has the right experience and financial resources to quickly get the turbines into the water and begin power generation.

The 12 MW project will demonstrate two 6-MW Voltornus units, a potentially transformative offshore wind technology that lowers construction and operation costs and increases reliability. The Voltornus uses a pre-stressed concrete floating semisubmersible platform, an advanced composites tower, and next-generation 6 MW permanent-magnet direct drive turbines (PMDD), the largest ever placed on a floating turbine. The Voltornus floating platform is designed for three 20-year life cycles, rather than the single 20-year life cycle common to wind projects. The Voltornus can easily be towed fully-assembled to and from shore after each 20-year cycle for turbine replacement that reduces capital costs by nearly 50 percent after the first deployment. The *Voltornus* can also be assembled and deployed from any waterfront facility with a 30 ft water depth. As a result, this technology allows commercial farms to be planned 20-50 miles offshore and beyond the horizon.

The first-phase of the project will utilize the University of Maine Deepwater Offshore Wind Test Site, which is in state waters 2.5 miles off Monhegan Island. This is a high-value, low-risk location that is already leased to the University of Maine. It has ten years of mete-ocean data, including 10 years of wind measurements, a fast track (60-days) hardware permit by the state of Maine, and a Finding of No Significant Impact (FONSI) issued for a scale prototype at the site in 2011. The Monhegan site already has a baseline of quality environmental and ecological data and geophysical and geotechnical investigations data, providing a clear head start on permitting and deployment.

As demonstrated in the commitment letters, the *New England Aqua Ventus I* project team has already committed \$32 million to cost-share this project, thirty-two times the first-year, \$1 million cost-share requirement from DOE. The project management plan is modeled on Iberdrola's successful deployment of 13,700 MW of wind projects and the 10,000 MW of offshore wind projects in the development pipeline.

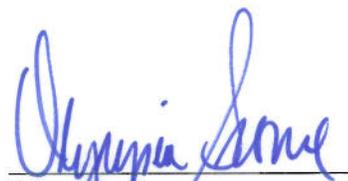
New England is an ideal region for this DOE demonstration program. A study of wind integration, completed by ISO New England in 2010, concluded that a 24 percent wind penetration on the regional grid is feasible by 2020, which could be met by the integration of 9.7 gigawatts (GW) of offshore wind. The New England region has an outstanding offshore wind resource with 391 GW of offshore wind capacity within 50 nautical miles. This resource is over 11 times the total ISO New England grid capacity of about 30-35 GW. Of the New England offshore wind capacity, 230 GW, or 59 percent, is in water depths exceeding 60 meters. The Renewable Portfolio Standard (RPS) demand in the New England states is predicted to reach 20,000 GWh by 2020, which equates to an annual market value of \$2 billion per year. Accessing this deepwater offshore wind resource in a cost-effective manner would provide unprecedented opportunities for meeting the region's RPS goals, local energy generation, and energy cost stability. A 9.7 GW network of deepwater offshore wind farms could attract over \$40 billion of private investment to our New England region with the potential to create 20,000 - 30,000 jobs.

We strongly support the *New England Aqua Ventus I* proposal and are encouraged that this proposal will create domestic, clean, affordable energy for the U.S. and provide economic growth and vitality to the New England region. We respectfully request that you give this application every appropriate consideration, subject to all applicable laws and regulations.

Sincerely,



Susan Collins
United States Senator


Olympia Snowe
United States Senator

Jeanne Shaheen
United States Senator