



Virginia Coastal Energy Research Consortium (VCERC) Offshore Wind Fact Sheet

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The Virginia Coastal Energy Research Consortium (VCERC) was chartered by Gov. Kaine and leaders from both parties in the Virginia legislature to research and foster the development of marine energy sources as a critical energy solution. VCERC is providing a critical step in bringing marine resources to the nation's energy portfolio by providing the collaborative engineering, scientific and economic research and planning needed by our business partners to pave the way for investors, markets and consumers.

- Offshore wind represents one of the most economically viable pathways for achieving the US DOE wind power goal of 20% by 2030. VCERC estimates for levelized energy costs based on real world bid for turbine and infrastructure installation show that offshore wind costs are equal to or better than comparable new coal, nuclear, and natural gas-fired generation, while holding the promise of further cost benefits as federal rules on carbon are defined and the hedge value against volatility of fossil fuels rises.
- Virginia offshore wind potential using VCERC wind assessment of class 5 and 6 winds, current lease blocks and available technology is estimated at 3 Gigawatts (GW) based on 3.5 to 5 megawatt turbines. Long term estimates are considerably higher as deeper water foundations and higher yield technology are developed, and as further mapping makes more areas available for development.
- The development of marine energy for US DOD facilities in Virginia and around the world will provide benefits to national security, taxpayers and the environment.

VCERC is positioning Virginia as a global leader in marine renewable energy. VCERC members and partners are collaborating to compete for maritime energy projects around the world, from wave energy in Scotland to wind energy off our shores and tidal energy in Chile.

- Critical project infrastructure including waterside manufacturing and transportation of marine structures and components, port and harbor capability, vessel and birthing capability and extensive marine engineering and construction capability are key strengths for Virginia.
- Initial Phase One development of 500 to 600 megawatts off Hampton roads would create over 1,000 high skill jobs while providing clean, sustainable energy at reliable and competitive costs.

While VCERC has provided much needed leadership and research in building offshore energy opportunity, funding issues remain a critical priority - current funding expires in June of 2009. Additional work focusing on radar, data acquisition for atmospheric, oceanic, and subsea variables (AOS), turbine reliability and grid infrastructure remain critical needs for project development.