

Offshore Wind Energy & “The Dog”

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Since its proposed inception, Jim Gordon, President of Cape Wind, has faced litigation, criticism, resistance and a host of other upsets related to the project. In January 2015 the Cape Wind project was stalled indefinitely after a missed financial deadline resulted in both National Grid and NStar (now EverSource) terminating their power purchase agreements; and subsequently Quonset Development Corporation (a port facility), Falmouth Harbor Marina (proposed headquarters), and New Bedford Marine Commerce (staging and construction area) terminated their leases with Cape Wind.

With the impending demise of the ill-fated Cape Wind Project, it’s easy to wonder “Why are we considering Off Shore Wind now?”

About 20 miles south of Horseneck Beach, where the gulf and jet streams pivot, is track of ocean considered to be one of the windiest places on Earth. This area, currently an untapped resource, represents a staggering 22% of the offshore wind energy in the United States.

The area began as an 800 sq. mile rectangle; and according to Paul Vigeant, Vice President of Workforce Development at Bristol Community College and Managing Director of the New Bedford Wind Energy Center, “through the involvement of fishermen, freight forwarders, environmentalist and people who monitor the ocean” local, state and federal officials “planned... and took out certain areas that were sensitive to fisheries, migratory patterns for mammals and birds and shipping channels...” to create what is now known as “The Dog”.

While the phenomena is fascinating, for it to be a feasible energy solution we must explore how this project will succeed where Cape Wind ultimately failed.

Cape Wind was located approximately 5-10 miles off shore, between Martha’s Vineyard and Cape Cod. Residents were concerned that the wind turbines would be visually disruptive. The Dog has what Paul Vigeant calls, a “visual pollution friendly” location, of 20 miles south of Horseneck Beach. The distance from the shore makes these turbines nearly invisible to the naked eye.

Financing proved to be problematic for Cape Wind. Cape Wind had a power purchase agreement; and a non-competitive bidding process allowed those in charge of Cape Wind to charge without restriction. This resulted in a .22 to .23 cent per kilowatt fee. Energy generated in the Dog Area will be competitively bid. Currently three major players in the wind energy/ investment world hold leases on separate tracks of The Dog.

The first company, Danish Oil & Natural Gas Company or DONG, has built 20 of the 80 wind farms in Europe; and has an estimated 1.3 billion dollar cash reserve ready to invest in Offshore Wind in The Dog area. The second company, Deepwater Wind, is currently financed to do the first offshore wind project in the United States, building a five-turbine farm off Block Island. The third company, OffshoreMW is financed by Black Stone Capital Group, the world’s largest private equity investment company. All three companies have both the financial backing and experience to provide a sustainable wind energy solution.

The size of turbines to be used in the Cape Wind project are considerably smaller than those that will be used for The Dog area. One hundred wind turbines with 1-2 megawatts size generators were proposed for Cape Wind. In The Dog area approximately 200 wind towers, each with 8MW to 10MW turbines, will be created with “propellers as large as Fenway Park.” Wind farms on the federal waters could “generate at least 10,000 megawatts, minimum,” says Representative Pat Haddad. With a quantity and scale this large, The Department of Energy’s Wind Vision report forecasts that offshore wind will achieve cost reductions of 22% by 2020, 43% by 2030, and 51% by 2050.

Additionally, New Bedford, MA has the first purposeful built port to service offshore wind. Massachusetts recently invested 100 million dollars into this facility as a deployment port. “With structures as large as seven story buildings these structures must be built in places with direct access to shipping ports,” says Mr. Vigeant. Fall River and New Bedford are port facilities that are directly accessible to The Dog.

Once the wind farm is created, companies looking to do business in the South Coast will be at the forefront of an entire new industry. In addition to maintaining the wind farm, jobs in building, manufacturing, transportation and a range of support services will be necessary. The European industry created 75,000 wind energy related jobs by 2014 according to the European Wind Energy Association.

Bristol Community College is preparing students for the many vocational needs of a wind farm. In 2004, the Engineering and Technology programs at Bristol Community College were tailored to focus on advanced manufacturing. A Wind Engineering “certificate” track was created, and a certificate program has been in existence for the past six years. Bristol Community College continues to focus its efforts on meeting the needs of vocational career seekers in our community and recognizes the need to be forward thinking. “Once you put the device in the ocean, they’re expected to be there for 20 years,” and will require routine maintenance says Mr. Vigeant.

Representative Haddad has introduced a bill, which if passed, will dictate how much of Massachusetts electricity will come from green power. Energy sources named in the bill include gas, better access to Hydro-Quebec, land solar, land wind energy and 2,000 megawatts of shore wind. Should this bill pass sometime between now and July production will start and about five years from now we can expect these farms to be in production.

“With the highest cost for energy in the continental U.S., and 10,000 megawatts scheduled to be decommissioned in four years, we need to begin filling the gap now,” says Rob Mellion, President and CEO of the Fall River Area Chamber of Commerce. Offshore wind stands to be a key factor in the diversified energy mix the South Coast needs.