

America's First Offshore Wind Farm and the Influence of Oil & Gas Experience

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After many years of anticipation Deepwater Wind has delivered power from the first offshore wind farm installed in the United States to the residences of Block Island, RI. This significant event in providing a new renewable energy source in the United States was greatly influence by offshore engineering and construction experience gain from sixty years of oil & gas development in the Gulf of Mexico. Aspects of the Block Island Wind Farm foundation design, fabrication, loadout, transportation and installation along with HSE aspects of the project will be discussed. Similarities and differences with current oil & gas practices will be identified.

In addition, the design conditions for the Block Island Wind Farm will be compared to Western Gulf of Mexico conditions to provide insight with respect to developing Wind Energy Areas in the Gulf of Mexico. In particular the hazard of Atlantic Coast and Gulf of Mexico hurricane conditions will be discussed in order to demonstrate how the recent Atlantic Coast experience influenced by oil & gas can inform future Gulf of Mexico wind turbine foundation designs for hurricane conditions.