

Offshore Renewable Energy Feasibility Study for Gulf of Mexico

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Abstract

The National Renewable Energy Laboratory (NREL) will explore the feasibility of offshore renewable energy in the Gulf of Mexico, in a new study commissioned this year by the Bureau of Ocean Energy Management (BOEM). This presentation describes the study elements which include an initial task to assess all possible renewable energy sources in the Gulf of Mexico with respect to the available resource, the readiness of the technology, and the potential cost. The technologies include offshore wind energy, wave energy, tidal energy, ocean current energy, ocean-based solar energy, ocean thermal gradients, and deep water source cooling. The study will also briefly cover hydrogen conversion and storage. Together with BOEM and partners, NREL will select the most viable technology from the above list and perform more detailed economic and site specific analysis to determine the cost and feasibility of a defined technology scenario. Research will also include an assessment of the existing Gulf of Mexico supply chain and regional jobs.