

Role of Public Power Authority in Offshore Wind Power Development

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Abstract

Preliminary calculations suggest the availability of large scale offshore wind power resource in the Mid-Atlantic bight, from Massachusetts to North Carolina. The development of this resource can replace most of the large fossil fuel based power plants presently used for meeting electric demand in the region. These power plants are the major source of greenhouse emissions in US. After much uncertainty, policy mechanisms are being crafted at the federal level to facilitate offshore wind resource development. At the state level, Texas recently leased submerged lands in the state waters for the development of an offshore wind power facility. Other coastal states may soon follow the suit. The focus has shifted to the financial feasibility of resource development. At many locations, the land-based wind power is competing successfully with conventional energy sources such as coal, natural gas and oil for electric generation. But the offshore wind power remains more expensive compared to land-based facilities due to higher construction and maintenance costs in the marine environment. The creation of long-term energy market by the Public Power Authorities can make the resource development competitive by offsetting the upfront capital cost. This presentation explores the role of Public Power Authorities in offshore wind power development.

Common pool resources such as hydro-electric power in many parts of US were developed, and still operated by Public Power Authorities. Power Authorities are government corporations, created by a legislative mandate to provide energy related public service. They enjoy financial flexibility to facilitate long-term power purchase agreements for renewable energy sources such as offshore wind power. This creates a stable alternative market and provides incentives for investors to develop and harness the resource at competitive costs. The energy consumers are ensured long-term secure supply of renewable energy at affordable prices. Such an arrangement ensures optimal development of this common pool resource for greatest public benefit.