



Offshore Wind: A Nearby Energy Source



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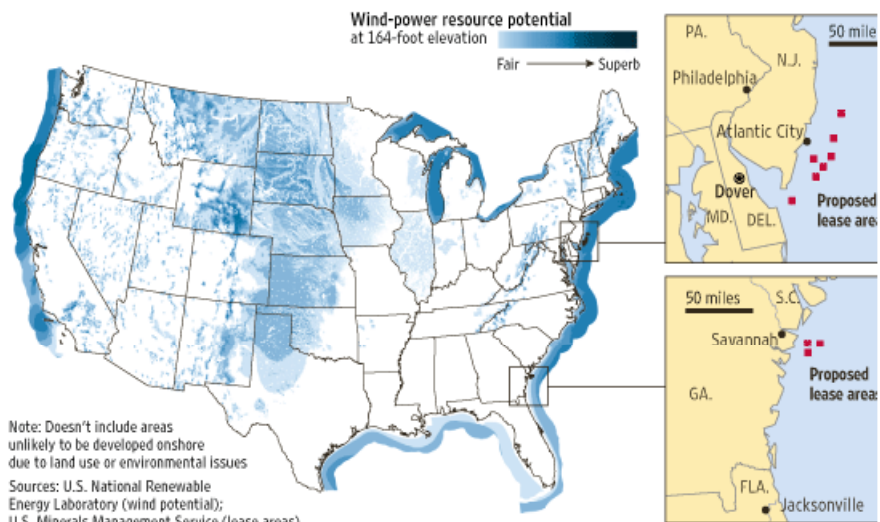


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Wind in the Water

The U.S. government is considering leasing several tracts of ocean off the East Coast to developers that want to erect wind turbines to generate electricity.





Why Invest:

- Northeast has relatively shallow water and few strong hurricanes, which make it a good candidate for offshore wind.
- Studies estimate 24,000 megawatts (MW) of potential wind power off the New Jersey coast.
- New Jersey has established a strong framework of policies, regulations and financial incentives to enable the development of local renewable energy resources.



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New Jersey's Clean Energy Goals

30% by 2020



20 percent reduction in GHG by 2020
 20 reduction in energy use by 2020
 30 percent use of renewable energy by 2020
 2,120 GWh solar photovoltaic by 2020

3000 MW of Offshore Wind by 2020




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- June 23, 2009 the federal government issued five exploratory leases for wind energy production on the Outer Continental Shelf offshore of New Jersey and Delaware.
- The leases will allow the construction of meteorological towers from six to 18 miles offshore to collect site-specific data on wind speed, intensity, and direction.



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Benefits: OSW provides economic development benefits including green jobs

“Wind energy off the Atlantic coast is a very significant resource. The technology is proven, effective and available, and can create new jobs for Americans while reducing our expensive and dangerous dependence on foreign oil.”

(Interior Secretary Ken Salazar)



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Benefits:

- \$7.5 billion investment in NJ and DE alone.
- Each of the proposed wind parks cost a billion to billion and half dollars. Half of that is for the turbines alone.
- East Coast manufacturing hubs needed to support the wind park development.
- Green jobs including an estimated 800 new jobs per wind park.



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Economic Significance:

- OSW by being so close to the load center can also contribute to the mitigation of New Jersey's congestion prices
- PJM Congestion Costs to New Jersey utilities In 2006 Were \$261 Million.
- Reducing congestion costs requires Transmission Upgrades, New Local Generation, and/or Demand Response



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PJM Approved Transmission Lines:



MAPP - \$1.425 Billion
 Trailco - \$970 Million
 PATH - \$1.8 Billion
 Susquehanna-Roseland - \$900 Million - \$1 Billion

Total - \$4.2 Billion



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Economic Significance :

- **500-kV Circuit to Supply Northern New Jersey.**
 This \$932 million transmission upgrade project, the "Susquehanna-Lackwanna-Jefferson-Roseland" line, will bring coal and nuclear generation supplies from Northeastern and Central Pennsylvania into New Jersey by about June 1, 2012.
- **500-kV Circuit to Supply Southern New Jersey.**
 This \$1.05 billion transmission upgrade project, the "Possum Point-Calvert Cliffs-Indian River-Salem" line, also referred to as the Mid-Atlantic Power Pathway (MAPP), will bring power from the PJM West region to New Jersey.



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Regional Significance:

- Offshore wind resources are closer to Northeast load centers. Investment in research and development focused on reducing costs and improving reliability promise to make offshore wind competitive with Midwest Wind on a delivered cost of power basis.
- Offshore wind requires investment in new transmission backbone to facilitate interconnection of offshore wind to major load centers in Northeast.
- Development of this backbone will require coordination of DOE, MMS and FERC as part of an Outer Continental Shelf energy resource development plan.



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Action: What can the Federal Government do to support Offshore Wind:

- Strong federal incentives that are simple, transparent and technology neutral.
- Establish an offshore wind transmission regime with appropriate state involvement.
- Encourage FERC and NERC to support robust planning within RTOs to support integration of local renewables.
- Extend the wind Production Tax Credit which is currently set to expire on 12/31/2012.



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