Bluewater Wind

Virginia Commission on Energy and Environment

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Bluewater Wind is a developer of offshore wind energy committed to bringing clean, reliable and affordable electricity to the Mid-Atlantic, New England, and the Great Lakes.

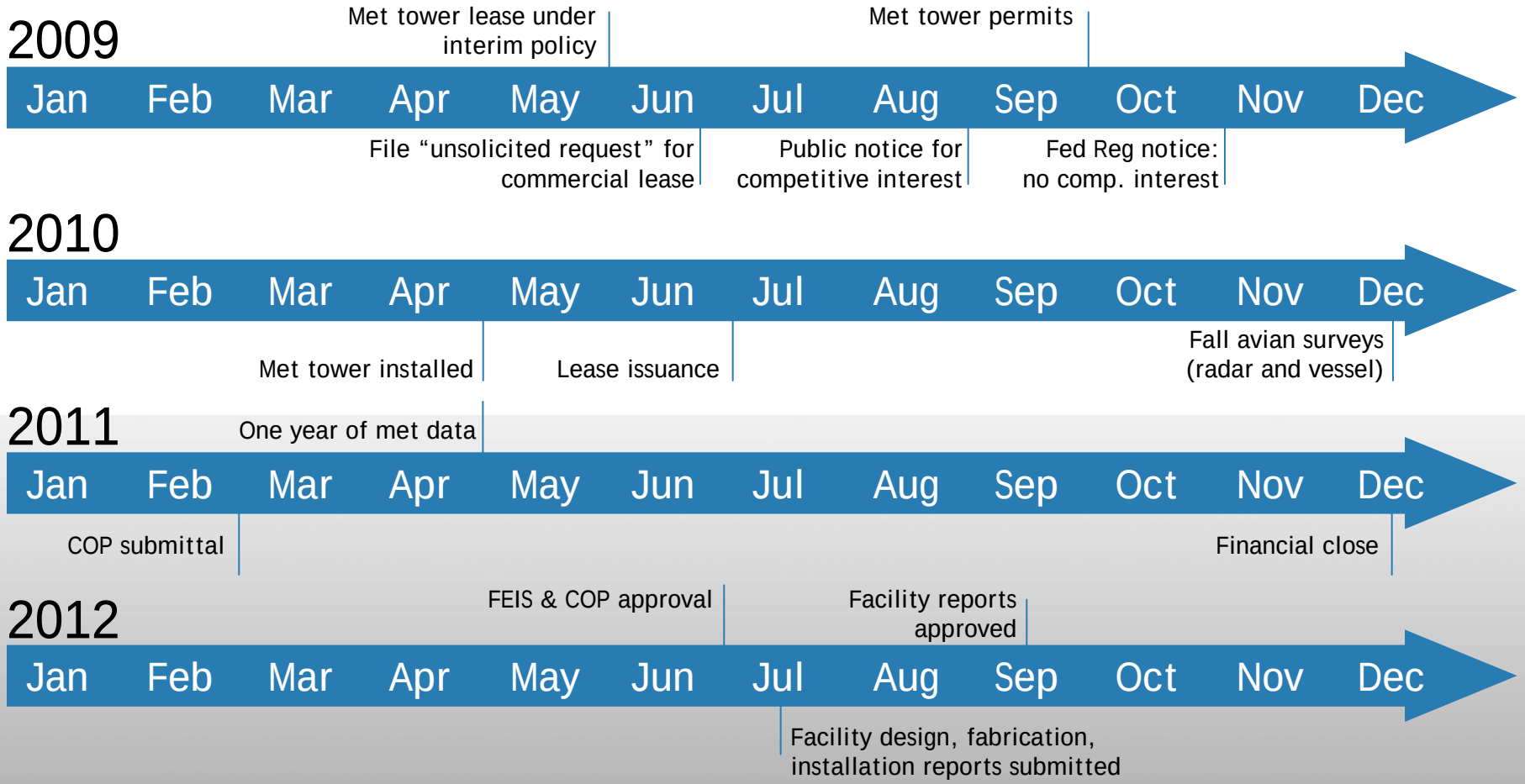
Bluewater Wind Project Portfolio

State/Area	Size	Status
Delaware	230- 450 MW	PPA signed, seeking additional off-takers
New Jersey	350 MW	Met tower approved
Maryland	600 MW	Preliminary sites identified, first-level studies in process
New York	350 MW	Responding to RFI
New England	450 MW	On short list; any award depends on nuke re-licensing
Great Lakes includes Ontario, Canada	1,300 MW	Advanced discussions with state and provincial officials

How Offshore Wind Came to Delaware

- 1999 - Deregulation and establishment of artificial price caps for seven years
- July 2005 - Delaware's Renewable Portfolio Standard begins
- February 2006 – Rate cap expires - 59% rate increase for DP&L customers April 2006 - House Bill 6 passed
- December 2006 - RFP issued by DP&L
- June 2008 – Power Purchase Agreement signed

MMS Timeline



Note: Assumes interim policy met tower lease avoids SAP approval process, no competition or lawsuits, first fall radar avian studies will be in Fall 2010, COP submittal requires fall avian radar data, and financial close can take place after environmental studies are complete and filed with agencies but before FEIS

Five Pillars of Developing a Wind Project

- Wind Resource
- Site Control/Access
- Permitable – Community Support
- Interconnection to Grid
- Long-term contracts with one or more parties

Desired Qualities of an Offshore Wind Energy Site

- Good wind resource – 18 mph avg. or >
- Cooperation with distribution companies
- Support from public officials, citizens, and environmentalists
- Electrical grid that can accommodate new generation with minimal upgrades
- Load pockets close to the coast
- Low environmental impact
- Seamless regulatory and permitting process

Benefits of Developing Offshore Wind

- **Achieving State/Federal Goals**
  - Increasing number of states with RPS requirements
  - Potential national RPS in 2009/2010
  - Reduction in local and regional GHG emissions
- **Lower Impact As Compared with Land-Based Wind**
  - Stronger, more consistent winds near load centers
  - Decreased access to high wind land-based sites
  - Fewer wildlife barriers far offshore (avian and bat)
- **Price Stability/Economic Development**
  - Hedge against rising and highly volatile fossil fuel prices
  - Replacement for aging fleet of coal and nuclear plants
  - Development of a new industry for a state

Wind Energy Creates Jobs

- Biologists (marine and terrestrial)
- Civil, mechanical, and electrical engineers
- Marketing, communication and public affairs professionals
- Finance and project development
- Iron workers, electricians, heavy equipment operators, and boat captains

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Facilitating Development of Offshore Wind

- Location/siting
  - VA has already done a lot of good work evaluating the State's offshore wind potential
- Feasibility & Economic Impact Analysis
  - Work by Prof. Hagerman and his colleagues at Virginia Tech's Advanced Research Institute

Encouraging Development of Offshore Wind

- Financial
  - Tax incentives or subsidies to bring OSW more in-line with cheap coal that's abundant in VA
  - Offshore REC carve-out
  - Cost-shares for portions of project
    - Meteorological tower
    - Cost sharing of export cable and electrical grid upgrades

Encouraging Development of Offshore Wind Cont'd.

- Regulatory Coordination
  - Coastal Zone Management
  - Avian and benthic studies
  - Coordination with other state regulatory agencies
- Legal
  - Long-term PPAs must be specifically approved by legislature and acceptable to the SCC
- Legislative
  - REC legislation
  - Strong state-mandated (non-optional) RPS
  - GHG emission standards

Encouraging Development of Offshore Wind Cont'd.

- Economic Development Support
  - Support from the VA Economic Development Partnership in attracting offshore suppliers and service providers to the state
  - Identify and invest in ports capable of supporting the construction and O&M of offshore wind parks
- Executive Support
  - Political support within Delaware, New Jersey, Rhode Island and Great Lake states have catalyzed offshore wind development

Approval Process

Federal, State & Local Reviews

- **Federal Regulations and Reviews**
  - Energy Policy Act 2005
  - Coastal Zone Management Act of 1972
  - Rivers and Harbors Acts of 1890 and 1899
  - Clean Water Act of 1977
  - Navigation and Navigable Waters
  - Federal Aviation Administration
  - National Environmental Policy Act
  - Archaeological and Historic Preservation Act of 1974
  - Fish and Wildlife Coordination Act of 1958
  - Endangered Species Act of 1973
  - Estuary Protection Act
  - Marine Protection, Research, and Sanctuaries Act
  - US Coast Guard
  - Marine Mammal Protection Act
  - Magneson-Stevens Conservation and Management Act
  - Migratory Bird Treaty Act
  - Abandoned Shipwreck Act
  - Approval for Private Aids to Navigation

- **Local Authorities**
  - To be participant in NEPA/State review
  - Municipalities with potential visible impacts
  - Local communities transited by onshore cable route
  - Building permits as required

- **State Regulations, Permits & Approvals**
  - Department of Natural Resources- State Environmental Review (associated with NEPA)
  - Coastal Federal Consistency Certification
  - Subaqueous lands permits and leases
  - Wetlands permit
  - Section 401 Water Certification
  - Storm Water Permit
  - Air Quality Permits
  - Div. of Fish and Wildlife
  - Div of Parks and Recreation
  - Beach Preservation Act of 1972
  - Public Service Commission/Board of Public Utilities
  - River Basin/Bay Commission
  - Heritage/Historical Commission
  - Economic Development Office
  - Energy Office
  - Department of Transportation

Thank You

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