Offshore Wind Policy Considerations in Industry and Port Development

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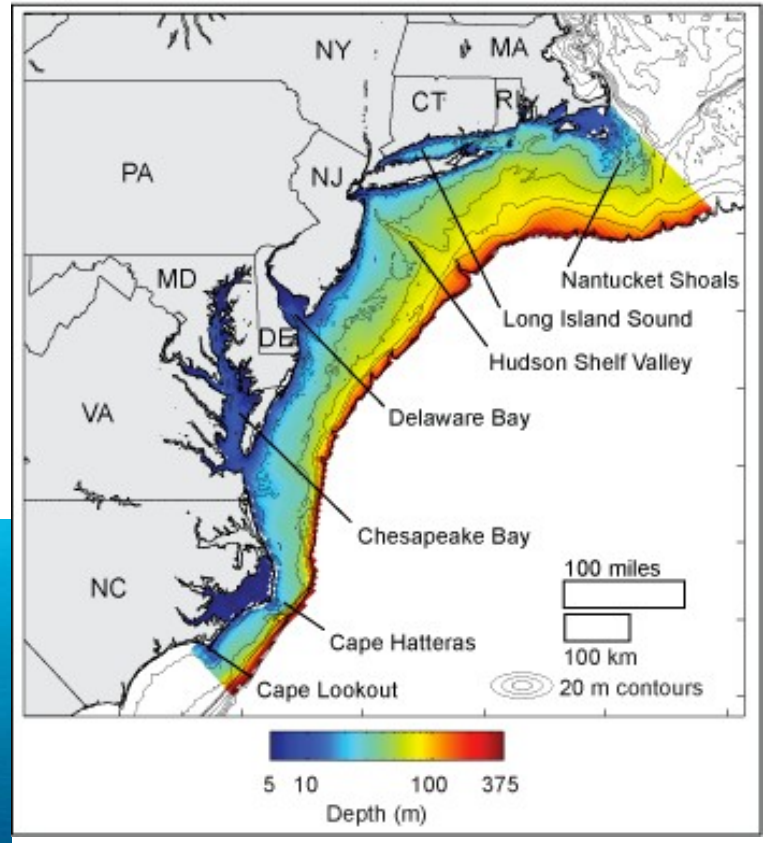
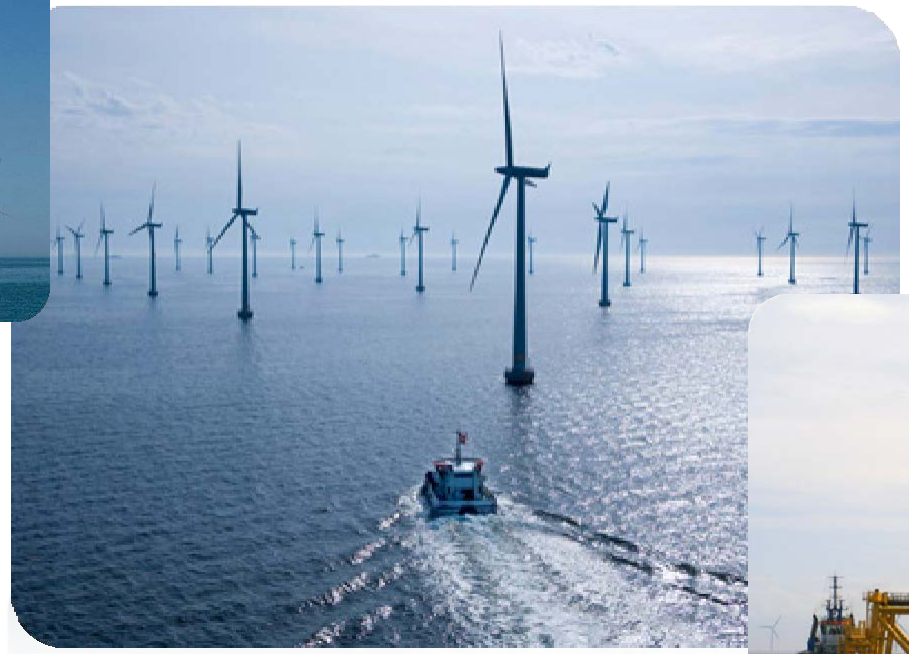


Estimated policy impacts > 29 years Starting in 2020?

Policy Elements =
Technology +
Science +
Stakeholder Involvement
Economics + Costs

2 years of construction



25 years of operation

2 years of decommissioning

Slide adapted from Offshore Wind Energy Class. University of DE

Stakeholder Engagement

Opportunities & Conundrums

- **Link between Government Policies & Business Decisions**
  - State RPSs & competitive RFPs are **major** steps forward
  - RI Ocean Special Area Management Plan (SAMP) success story
  - BOEM --- State task forces, NEPA & permit processes for leases
    - Building the scientific knowledge base
  - DOE --- Technology R&D & demonstrations
- **Port Development Requirements:**
  - CAPEX for infrastructure needs = Business decisions, lease fees
  - Models? New Bedford, Esbjerg, Bremerhaven
  - Where are the Atlantic open waterfront sites?
    - Laydown areas, proximity, draft, bridges
  - Complications: contaminated soils, dredging, competing interests of ports, environmental justice

Is offshore market on the same path as land-based wind industry?

- Imported EU technology for decades
- Inconsistent fed/state climate policies
- High hurdles without top-down (federal) policies & in-state RPS goals
- Connect the dots with broader **regional** perspectives
- Need champions & regional leaders:
  - Realizing economic benefits
  - Applying technology innovations
  - Training maritime workforce
  - Addressing community concerns

https://www.energy.gov/eere/wind/downloads/2016-offshore-wind-technologies-market-report