New York’s Offshore Wind Initiative

NASEO Annual Meeting
September 17, 2019
9,000 MW of offshore wind by 2035

10,000 JOBS ENOUGH TO POWER 6 MILLION HOMES BILLIONS IN INFRASTRUCTURE 30% OF NEW YORK’S ELECTRICITY LOAD

NEW YORK’S NATION-LEADING CLIMATE LAW Climate Leadership and Community Protection Act
Record Competition

Evaluation Criteria

70% price
20% economic benefits
10% project viability

INAUGURAL SOLICITATION, 2018

4 proposers
18 bids
1,696 MW of offshore wind capacity

Enough to power over half of all New York City households
AWARD RESULTS: TWO PROJECTS

Empire Wind
816 MW

Sunrise Wind
880 MW
AWARD RESULTS: TWO PROJECTS

Project Timelines

Research and Stakeholder Engagement
New York State Energy Research and Development Authority (NYSERDA) leads design of project guidelines
2017 - Ongoing

Permitting and Approvals
Developers identify sites for turbines and substations, map cable routes, and obtain federal, state, and local permits and approvals
2019 - 2023

Construction and Installation
Developers install foundations, lay cables, build substations, and assemble wind turbines
2022 - 2024

Operations
Offshore wind projects produce renewable electricity to power New York State (25+ years)
2024 - 2050+

Proposal Review and Contract Awards
Developers submit proposals to NYSERDA, who reviews and awards contracts
2019

2020 - 2024 Manufacturing
Developers work with supply chain to manufacture and transport components

2024 Commissioning
Developers and grid operators conduct pre-operational testing
NEW YORK STATE OFFSHORE WIND MASTER PLAN
Charting a Course to 2,400 Megawatts of Offshore Wind Energy

20+ Economic and Environmental Studies

Including:
- Birds and Bat Study
- Environmental Sensitivity Analysis
- Fish and Fisheries Study
- Marine Mammals and Sea Turtles Study
- and more...

Roadmap for advancing the development of offshore wind in a cost-effective and responsible manner.
Ongoing Research

**Metocean Buoys in the New York Bight**

- Two floating LiDAR (light detection and ranging) buoys deployed August 2019 for a 2-year period
- Remote sensing will provide continuous data on wind, ocean currents, and wildlife
  - Acoustic monitoring for birds, bats, and marine mammals
  - Nanotag antennas and fish tag receivers
Ongoing Research

Environmental and Fisheries Research for Offshore Wind

- Recently completed a 3-year aerial survey of birds, marine mammals, sharks and fish shoals
- 2019 competitive solicitation selected five multi-year projects
  - $2 million in funding
  - Reduce risks to wildlife and fisheries
  - Inform offshore wind development process
  - Take a regional perspective
Public Engagement

Technical Working Groups

- Environmental
- Commercial Fishing
- Jobs/Supply Chain
- Maritime

Key Stakeholders
Offshore Wind Developers
Technical & Facilitation Support
Regional State Agencies
Federal Agencies

Cost-Effective and Responsible Advancement of Offshore Wind for New York
Public Engagement

Research Opportunities

National Offshore Wind Research and Development Consortium

Supports 3 Research Pillars:
1. Offshore Wind Plant Technology Advancement
2. Offshore Wind Power Resource and Physical Site Characterization
3. Installation, O&M and Supply Chain Solutions

Focused on reducing the levelized cost of electricity (LCOE) for offshore wind in the United States by facilitating innovations directly responsive to technical and supply chain barriers