

New York State Offshore Wind Master Plan Update

Agenda

- Introduction
- Update on Offshore Wind Master Plan
- Siting Standards and Wind Energy Areas
- Intermediate reports and schedule
- Market Advisory Group
- Questions and answers



Offshore Wind Master Plan

Announced by Governor Andrew M. Cuomo in 2016 State of the State

Goal

Provide a comprehensive State roadmap for advancing development of offshore wind in a cost effective and responsible manner to help meet the state's clean energy goals and Clean Energy Standard requirements to meet 50% of New York's electricity needs with renewable sources by 2030.

Blueprint - NYS Offshore Wind Master Plan



Issued September 2016 https://www.nyserda.ny.gov/offshorewind



2017 State of the State - Commitment to Develop Offshore Wind Power

Announced by Governor Andrew M. Cuomo on January 10, 2017

Proposal to develop up to 2.4 gigawatts of offshore wind power by 2030, enough power generation for 1.25 million homes and the largest commitment in U.S. history.

Called on the Long Island Power Authority to approve the 90 MW Deepwater South Fork project.



Offshore Wind Master Plan

Key Elements

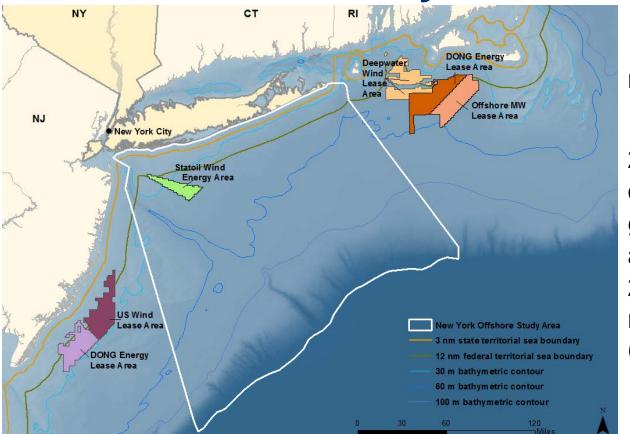
- 1) Siting standards, site identification, procurement strategies and timing
- 2) Cost, benefit, interconnection and related studies
- 3) Analysis and support for Public Service Commission proceedings on offtake and transmission
- 4) Stakeholder and community engagement
- 5) Supply chain analysis



Offshore Wind Master Plan

- The Plan will include multiple new recommended WEAs to achieve NYS's clean energy goals.
- 2) Studies will be conducted and approaches analyzed that will support the development of the plan.
- 3) Some studies may carryover into 2018 or may outline approaches to inform where additional work is needed.
- 4) The Master Plan will include analysis, recommendations, best solutions and best practices to advance OSW.
- 5) The Master Plan is a NYSERDA-led, collaborative effort that will engage stakeholders across communities, among agencies, NGO's, and across jurisdictions.

Master Plan Offshore Study Area



12,600 square nautical miles

2,400 MW offshore wind goal requires approximately 280 square nautical miles (237,000 acres)



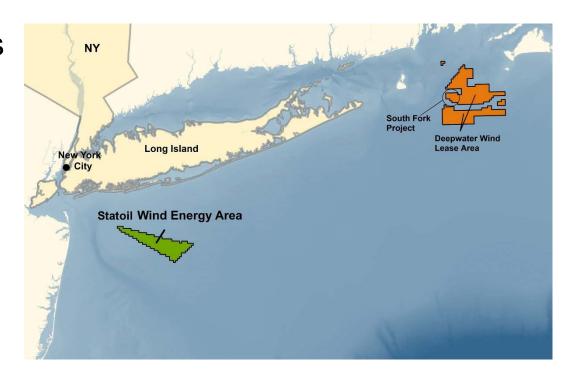
Surveys, Studies and Outreach Underway

- Digital Aerial Wildlife Survey (Summer & Fall 2016 surveys complete)
- Multi-beam Echo Sounder and Benthic Survey (Spring 2017)
- Metocean Data Analysis
- Commercial Fishing Studies
- Archaeology and Cultural Studies
- Cumulative Effects Study
- Shipping and Navigational Risk Assessment
- Aviation & Radar Assessment
- US Installation Vessel Study
- New York Port Study
- Grid & Interconnection Study



South Fork Project

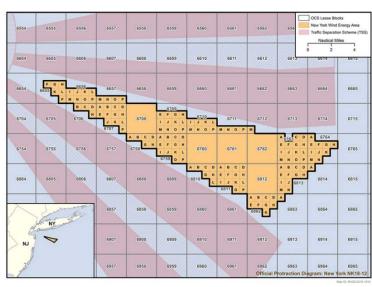
- LIPA Board of Trustees approved on January 25, 2017
- 90 megawatt offshore wind farm
- 30 Miles east of Montauk
- Enough to power 50,000 Long Island homes





BOEM New York Wind Energy Area (WEA) Auction

- BOEM held auction for first New York State Wind Energy Area Lease (79,350 acres) on December 15-16, 2016
- 6 Bidders, 33 rounds
- Statoil won auction, lease executed on March 15, 2017
- Pending Lawsuit by Fisheries Survival Fund as lead plaintiff



Additional WEAs required to achieve Governor's call for 2,400 MW of offshore wind



Strategy Update

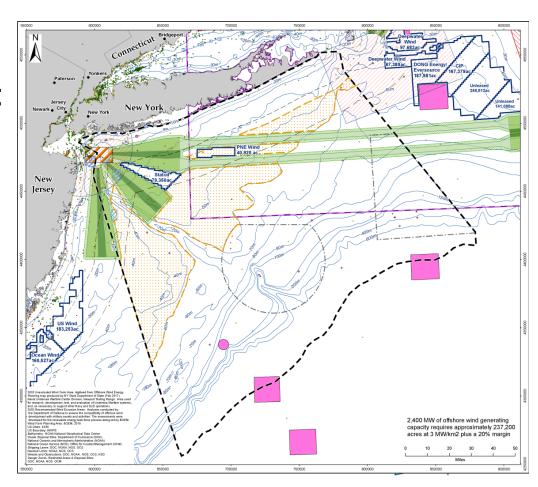
- Create competition among developers for offtake agreements for existing and new lease areas that meet New York's requirements and achieve the state's goals for offshore wind at the lowest cost and with the greatest benefits for New Yorkers.
- Existing lease areas outside of the Master Plan Study Area may compete for offtake.



Siting Standards

New York specific including:

- Visibility projects to be effectively not visible from shore
- Environment projects to avoid sensitive habitats
- Fishing minimize impact to and promote co-existence with through siting and layouts
- Navigation allow for safe and efficient maritime passage



Identification of Additional Sites for Offshore Wind Development

- Approximately 237,000 acres required for 2,400 MW
- Multiple sites required that <u>taken together</u> work for the maritime, fishing, environmental and other stakeholders
- Identification of sites best suited for development based on the Siting Standards
- New sites will be submitted to BOEM with a request for competitive auctions



Offtake and Procurement for Long Term Contracts

- NYSERDA is developing an Offshore Wind Offtake
 Options Proposal be filed with Public Service
 Commission for comment and decision making in the
 Clean Energy Standard docket (Case 15-E-0302)
- Procurement will be competitive, designed to achieve the lowest cost and greatest benefits for New Yorkers
- The offtake mechanism will be available only for projects in areas that meet the siting standards determined for the Master Plan



2017 Milestone Schedule* / Intermediate Reports

- May U.S. Jones Act Compliant Installation Vessel Study
- June Offshore Wind Offtake Options Proposal
- July NY Ports and Infrastructure for Offshore Wind Study
 - Marine Navigation Study
- Aug Environmental Studies
- Sept Multi-Beam EchoSounder and Benthic Survey Results
 - Fisheries Assessment Report
 - NY Offshore Wind Siting Standards and Identification of Preferred Sites for Development
- Dec NYS Offshore Wind Master Plan

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^{*} Dates are subject to change.

www.nyserda.ny.gov/offshorewind

- Updates
- Reports & Data
- Email sign up





- Objective Create a Market Advisory Group of industry leaders to strategically engage on topics related to the Offshore Wind Master Plan
- Through the Market Advisory Group, NYSERDA will solicit developer and industry input for surveys, studies and other areas of the Master Plan to ensure that work addresses practical project development, financing and construction constraints, and minimizes costs to consumers



Potential Areas of Engagement:

- Wind Energy Areas
 - Number, size and capacity of new areas to be identified (i.e. multiple sites of 79,000 acres with 800 MW each)
- Development timeline
 - Estimated project schedules including permitting, financing and construction and ways to reduce overall timeline



Potential Areas of Engagement:

- Cost drivers and cost mitigation strategies
- Site assessment and characterization
- Supply chain and development constraints (including but not limited to vessels, local manufacturing, workforce skill gaps)
- Transmission considerations (Offshore preferences, interconnection, etc.)



- The Group: 15 industry experts (1 rep. per firm) comprised of a well-rounded set of expertise including legal, finance, engineering, supply chain and project development. The group should include representatives with a wide variety of expertise in Europe and/or the U.S.
- The Ask: Approx. 10 +/- hours per month:
 - Bi-weekly or monthly group calls
 - Direct one-on-one engagement with NSYERDA staff
 - Review and comment on documents or topics over email



- Interaction between NYSERDA and Advisors will respect industry needs for privacy; no comments will be attributable to any specific firm
- Members of the Advisory Group should represent industry's interests, not individual company interests
- There will **not** be advantages given to members of the Advisory Group

Nomination/Selection process:

 To become a member of the Market Advisory Group interested individuals should self-nominate via email (to

Allison.Rose@nyserda.ny.gov):

- identify your interest in participation,
- outline your unique qualifications
- outline additional areas of expertise accessible though the your firm and/or network
- maximum 500 words, attach resume



Submit participation questions and self-nomination emails to:

Allison Rose
Project Manager
NYSERDA
+1-518-862-1090 x 3551
Allison.Rose@nyserda.ny.gov



Questions?



