





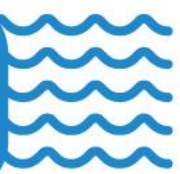
**NYSERDA**

# **New York State Offshore Wind Update**

**May 23, 2018**



## New York Clean Energy Standard

  
**50%**  
 **renewable  
energy by**  
**2030** 

**New York State will commit to building:**

**2,400 megawatts of offshore  
wind power by 2030, which will  
generate enough power for  
up to 1.2 million homes.**



# Offshore Wind Master Plan

*A comprehensive state roadmap for advancing development of offshore wind in a cost-effective and responsible manner*

## Key Elements

- Identifies the most favorable areas for potential offshore wind energy development
- Describes the economic and environmental benefits of offshore wind energy development
- Addresses mechanisms to procure offshore wind energy at the lowest ratepayer cost
- Analyzes costs and cost-reduction pathways
- Recommends measures to mitigate potential impacts of offshore wind energy development
- Identifies infrastructure requirements and assesses existing facilities
- Identifies workforce opportunities



## NEW YORK STATE OFFSHORE WIND MASTER PLAN

**Charting a Course to 2,400 Megawatts  
of Offshore Wind Energy**

# Master Plan Supporting Studies and Surveys

## Environmental

- Marine Wildlife Survey
- Analysis of Multibeam Echo Sounder and Benthic Survey
- Birds and Bats
- Environmental Sensitivity Analysis
- Fish and Fisheries
- Marine Mammals and Sea Turtles
- Preliminary Wind Resource Assessment
- Sand and Gravel Resources
- Consideration of Potential Cumulative Effects

## Social and Regulatory

- Aviation and Radar Assets
- Health and Safety
- Shipping and Navigation
- Cultural Resources
- Cable Landfall Permitting
- Marine Recreational Uses
- Visual Threshold Study

## Economic and Infrastructure

- Pipelines, Cable, and Other Infrastructure
- Ports and Supply Chain
- Workforce Opportunities in New York
- Jones Act Compliant Vessels
- Project Cost Projections
- Offshore Wind Injection Assessment



**Issue solicitations in 2018 and 2019 to develop**

**at least**

**800 MW**

**of offshore wind projects**

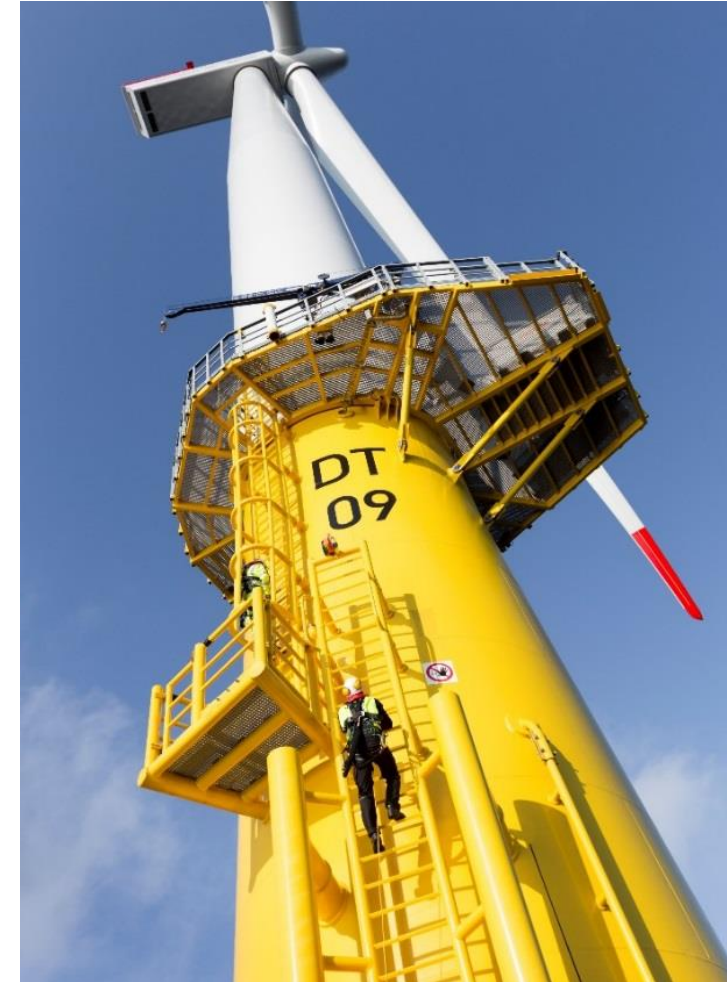


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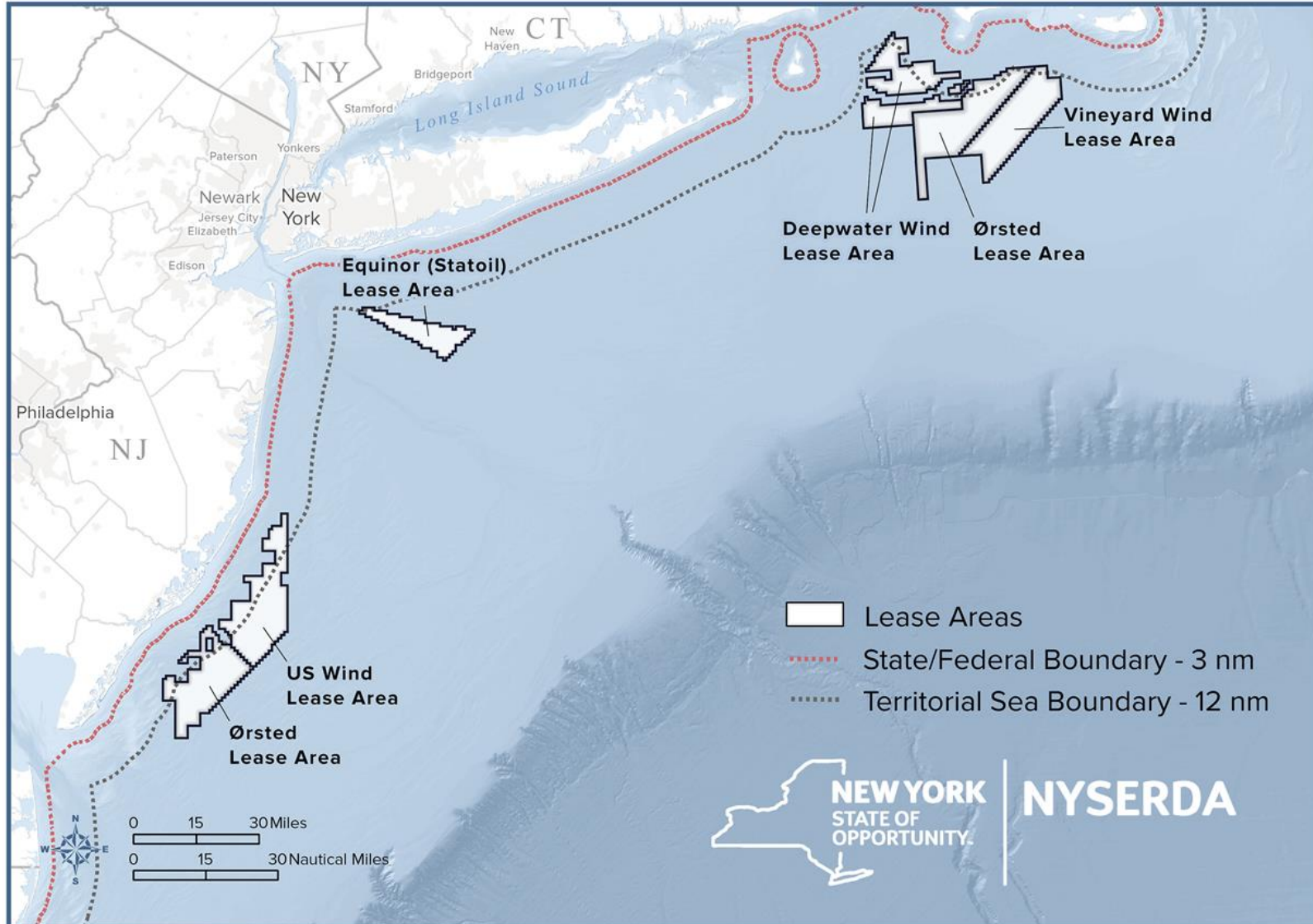


# Public Service Commission Proceeding

- NYSERDA filed an **Offshore Wind Policy Options Paper** on January 29, 2018
- The Options Paper provides an assessment of alternatives for addressing a wide range of policy issues pertinent to the successful deployment of a first phase of offshore wind energy of at least 800 MW of offshore wind procured in 2018 and 2019
- The proceeding is guided by two principal documents:
  1. An Draft Generic Environmental Impact Statement, comments were due on May 9, 2018
  2. A Notice published by the Department of Public Service, which leverages NYSERDA's Offshore Wind Policy Options Paper, comments due on June 4, 2018
- A proceeding is underway (Public Service Commission Case 18-E-0071) which will culminate in an Order defining the logistics of New York's offshore wind program. The PSC is expected to issue an Order in Q3, and the first RFP will be issued by the end of 2018.



# Existing Regional Federal Lease Areas



- 2016 BOEM Auction for NY Site, \$42.5 mm winning bid
- Robust interest and demand for additional lease areas adjacent to NY/NJ to serve nearly 6,000 MW of demand by 2030
- Energy cost reductions will be driven by greater competition
- Oct. 2017, NY requested at least four additional areas capable of hosting >800 MW each

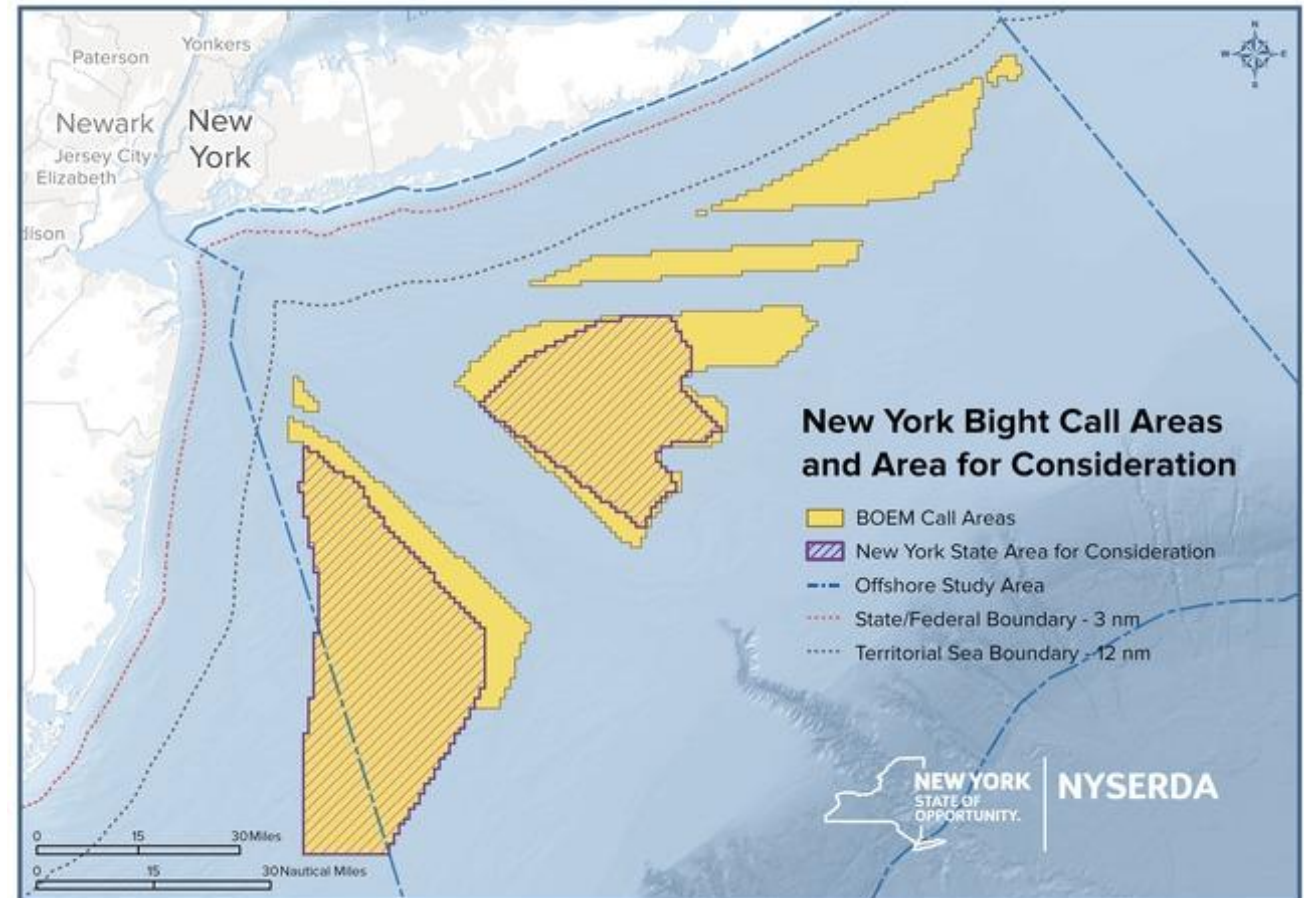
# Refinement to the Area for Consideration

**Goal:** Find an area that presents the greatest opportunity for responsible, cost-effective development of future lease areas to achieve New York State goals, while presenting the least conflict with ocean users and wildlife

The Area for Consideration additionally accounts for:

- Commercial Fishing
- Cost
- Cables and Pipelines
- Environment and Wildlife
- Grid Interconnection
- Historic Properties
- Marine Mammal Impacts
- Navigational Concerns
- Visibility

\*The removal of areas was generally based upon multiple considerations





# Economic Potential of Offshore Wind in New York

As the industry sets its sights on the U.S., New York is ideally positioned to capitalize on the potential economic opportunity. **NYSERDA estimates that, by 2030, New York can attract a \$6 billion New York industry that supports nearly 5,000 local jobs.**

Scenario		Project management and development workers	O&M workers	Installation and commission workers	Manufacturing workers
High Market (8 GW of regional OSW by 2030)	High local content	350	1,830	470	2,250
	Base local content	330	1,820	200	90
Low Market (4 GW of regional OSW by 2030)	High local content	340	1,790	420	1,310
	Base local content	330	1,780	250	50

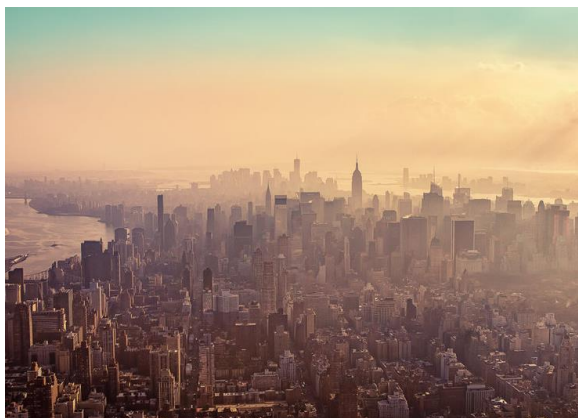
# Ongoing Studies and Analysis

## Metocean



- Improve characterization of the wind, wave and ocean current environment.
- Useful in refining project layouts and reducing project uncertainty.

## Air Quality



- Explore undertaking a detailed assessment of the air quality and health impacts of achieving New York's 2030 goals.
- Refine the understanding of the hourly impacts of offshore wind generation in relation to the demands of the grid.

## Wildlife



- Collaboration with appropriate federal and state agencies, universities and scientists to collect baseline data.
- Map seasonal patterns to assist the identification of important habitat areas and predict future areas of high use.

## Supply Chain



- Collaborate with industry to study how New York can best support the OSW supply chain.
- Analyze technical challenges to envision a path forward for the broader US industry.



# Technical Working Groups

## Environmental



- Development of Wildlife Best Management Practices.
- Coordination for adaptive management.
- Identification of research needs and coordination.
- Lead: NYSERDA

## Commercial and Recreational Fishing



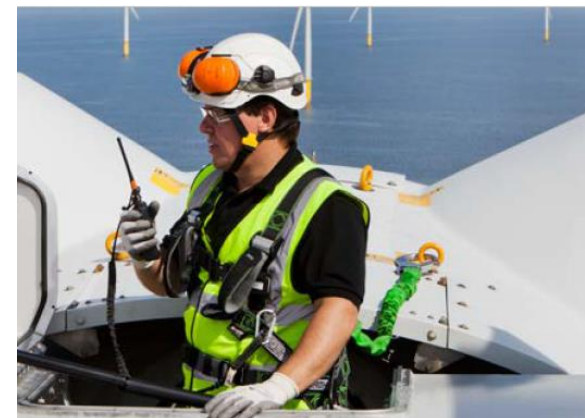
- Development of Fisheries Best Management Practices.
- Identification of research needs and coordination.
- Development of a framework for understanding commercial fishing impacts.
- Improved Communications
- Lead: NYS Dept. of Environmental Conservation (DEC)

## Maritime



- Development of Maritime Best Management Practices.
- Define strategies that could help members engage effectively with OSW development.
- Commitment to smart development
- Lead: NYS Dept. of State (DOS)

## Jobs and Supply Chain



- Facilitate the connection of local manufacturers with global OSW developers and equipment manufacturers.
- Ensure certification and training requirements are clear and readily available.
- Lead: NYSERDA

# Questions?

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