



**NYSERDA**

# **New York State Offshore Wind Master Plan**



**Independent Power Producers of New York - Fall Conference  
September 14, 2017**

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

**up to 2.4 gigawatts of offshore  
wind power by 2030, which will  
generate enough power for  
1.25 million homes.**

# Offshore Wind Master Plan

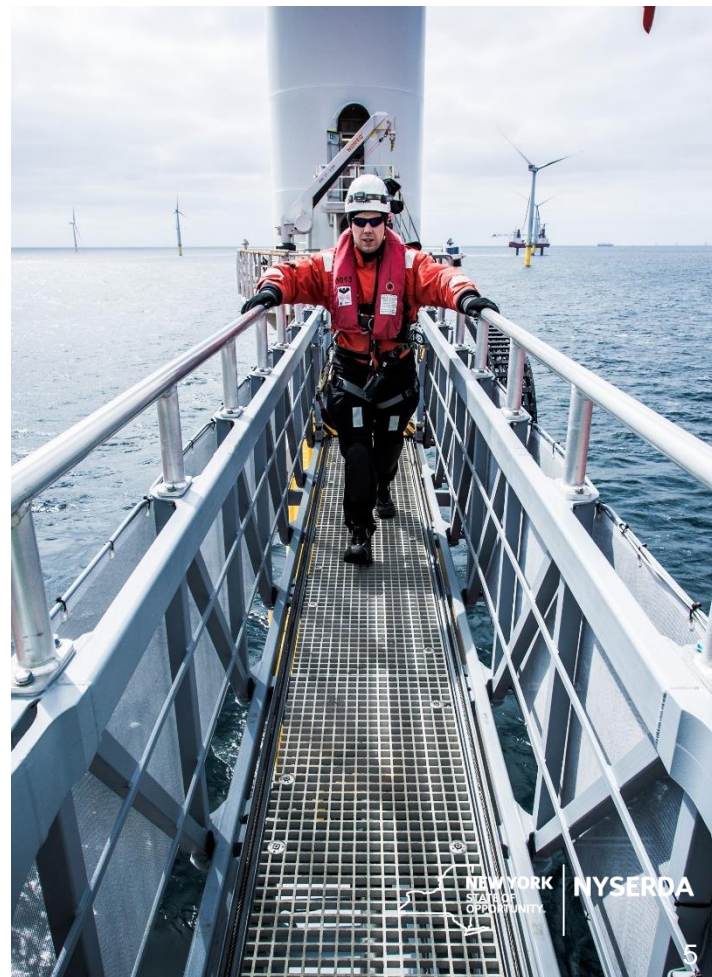
A comprehensive State roadmap for advancing development of offshore wind in a cost-effective and responsible manner

## Process

- Stakeholder and community engagement
- Environmental, social, regulatory, economic, and infrastructure related studies

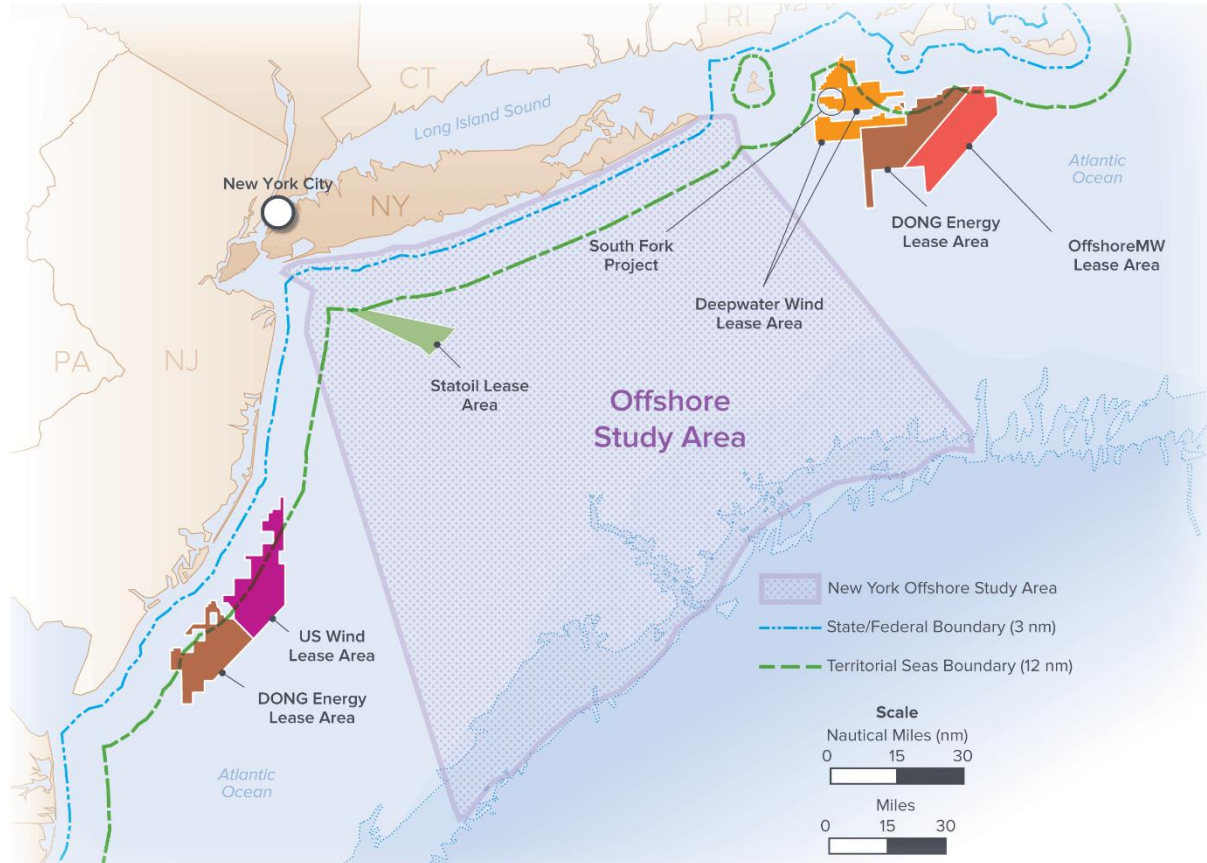
## Key Elements

1. Recommended development sites
2. Guidelines for developers
3. Analysis and support for cost-effective electricity purchase





# Master Plan Offshore Study Area



Only **2%** of the **Offshore Study Area** is needed to meet the State's goal of 2.4 GW by 2030

# Studies and Surveys

## Environmental

- Marine Wildlife Survey
- Sea Floor and Benthic Survey (Mapping and Environmental Assessment)
- Birds & Bats
- Environmental Sensitivity & Permitting Risk
- Fish & Fisheries
- Marine Mammals & Sea Turtles
- Metocean (Wind, Waves and Current) Characterization
- Sand and Gravel Resources

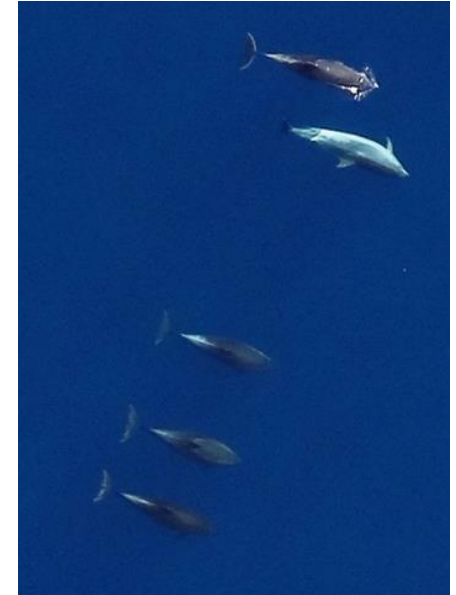
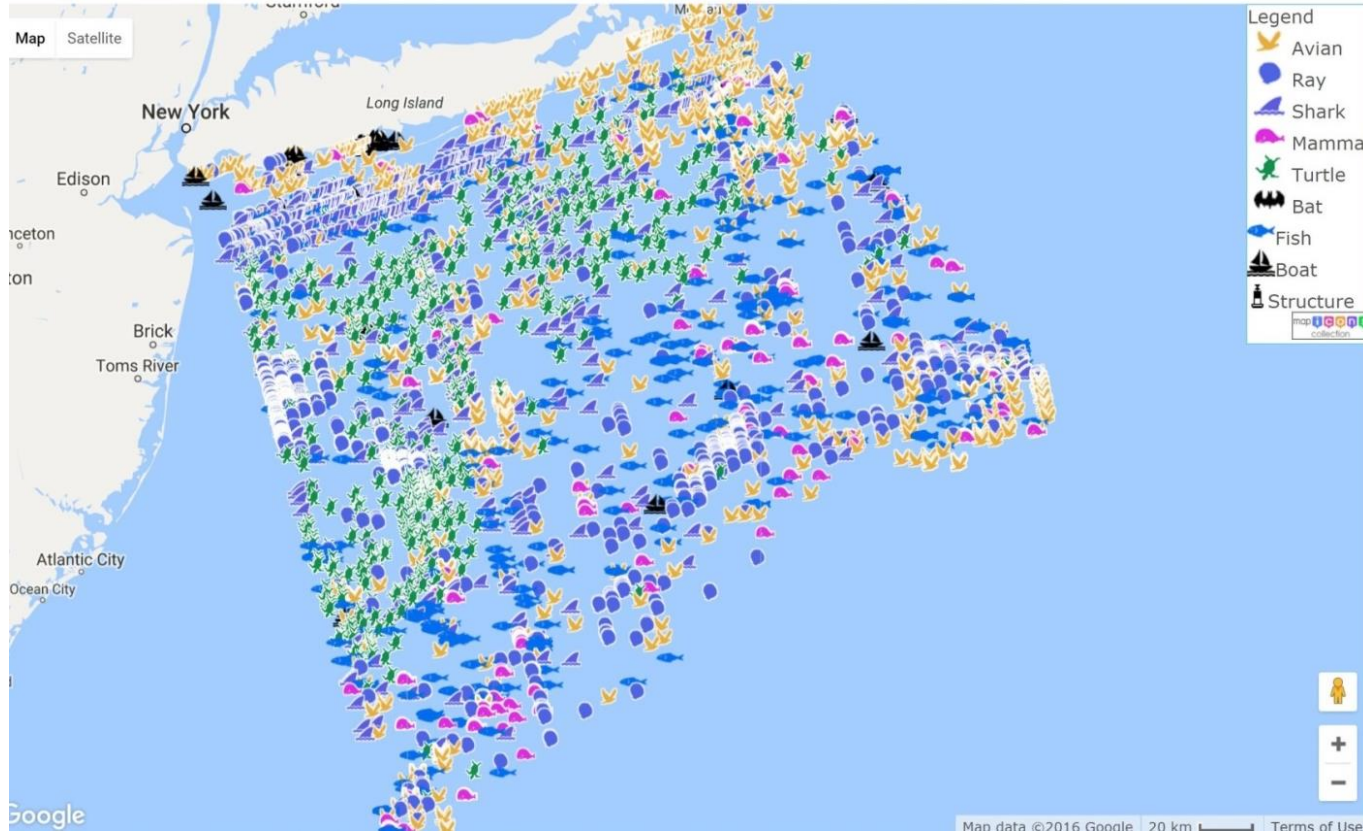
## Social and Regulatory

- Aviation and Radar
- Health and Safety
- Shipping and Navigation
- Marine Archeology and Cultural Resources
- Onshore Permitting Constraints
- Recreational Uses
- Visual

## Economic & Infrastructure

- Grid and Interconnection
- Jobs and Workforce Development
- Offtake Mechanisms
- Pipelines, Cables and Third Party Infrastructure
- Ports and Supply Chain
- Project Cost Projections
- Vessels

# Marine Wildlife Aerial Survey



# Jobs and Workforce Development

## Purpose

To inform coordinated state-wide collaborative effort to ensure that New York's workforce, ports, and manufacturers are best prepared for offshore wind investment.

## Outcomes

1. Capabilities of NY workforce, port infrastructure, and manufacturing
2. Strengths and development potential of existing workforce to reach NY offshore wind goal
3. Strengths and potential of existing workforce to reach Northeast regional offshore wind goal (approx. 8 GW)
4. Projections in job numbers and economic impact (2.4 GW NY scenario and 8 GW regional scenario)





# Ports and Supply Chain

- Staging and Fabrication Ports (turbines, blades, foundations, cables)
- Operations and Maintenance Ports



Bremerhaven, Germany



Belfast, UK



# Offshore Wind & the Clean Energy Standard

## Order Adopting A Clean Energy Standard (issued August 1, 2016):

*“New York is fortunate to have substantial potential for offshore wind production and with appropriate time, careful planning and deliberate action, the State has the opportunity to exploit its geographic advantage to develop offshore wind and promote the beneficial attendant economic activity associated with this burgeoning industry. **In order to maximize the potential for offshore wind, in addition to the actions taken in this Order, the Commission is requesting NYSERDA to identify the appropriate mechanisms the Commission and the State may wish to consider to achieve this objective.**”*

# Offshore Wind & the Clean Energy Standard

## Procurement

- Present options and recommendations for offshore wind procurement and contracting in order to put New York on the path to meet the 2.4 GW goal

## Cost

- Produce data on expected capital cost (including transmission to land and substation), operating costs and gross levelized costs of energy (LCOE) for projects with commercial operation dates from 2022 to 2030
  - Updated information on impact of project ownership and procurement structures on finance cost

## Transmission

- Conduct analysis of integrating 2.4 GW of offshore wind, at interconnection points in load Zones J (New York City) and K (Long Island)

# Thank You

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