New York Offshore Wind Public Webinar
Program Updates

December 5, 2019
Agenda

• New York State’s Nation-Leading Mandates
• Regional Updates
• New York State’s Executed Contracts and Phase 1 Report
• Supporting Science, Data, Understanding and Collaboration
• Supply Chain and Workforce Development
• Stakeholder Engagement Activities
• 2020 Priorities
New York is committed to 100% clean carbon-free electricity by 2040, the most aggressive in the nation.
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
Regional Market Ambitions - 26 GW

RECENT NEWS

• MA awards 804 MW Mayflower Wind project
• NJ Executive Order increases OSW target to 7.5 GW
• CT receives 3 bids in first solicitation
NYSERDA Offshore Wind Development

2016-2018: Market Development, Studies and Planning, Stakeholder Engagement

Nov 2018: First Solicitation Launched

Feb 2019: 18 Bids Received

July 2019: 1,700 MW Award Group Announced

Oct 2019: Contracts Executed and Phase 1 Report Published
Contracts Executed, October 2019

Empire Wind
816 MW

Sunrise Wind
880 MW

> Enough to power 1 million New York homes
> 1,600 jobs; $3.2 billion in private sector investments
Launching New York's Offshore Wind Industry

Phase 1 Report filed with Department of Public Service

Unprecedented competition:
• Most competitive market response to date among all U.S. state offshore wind solicitations
• Demonstrates New York’s unparalleled reach to existing lease areas spanning New England to New Jersey

Innovation Contracting Structure:
• Index OREC contracting structure where payments rise and fall inversely to a composite average of New York’s energy and capacity market prices
• Provides protection for ratepayers and projects against volatility in utility bills and project revenue
Cost Effectiveness:

- The projects have an average all-in development cost of $83.36 per megawatt hour (2018 dollars) with an expected average OREC cost of $25.14 per megawatt hour.

The average bill impact for residential customers will be less than a dollar per month per customer – approximately $0.73.
Important Contract Provisions

New York Supplier Opportunity
• For all contracts greater than $5 million, the opportunity must be made available to New York businesses

Project Labor Agreements and Prevailing Wage
• Encouraging opportunities for New York’s workforce

Environmental and Fisheries Mitigation Plans
• Developers will work with the Environmental and Commercial Fishing Technical Working Groups to create and evolve mitigation plans
Supporting Science, Data, Understanding, and Collaboration
OSW Technical Working Groups

Collaborative Engagement with Key Stakeholders

• Unique points of view and targeted interests
• Cross-borders and geographies
• Powerful representative voices
• Active problem-solving roles in NYS policy and program development

Environmental
Commercial Fishing
Maritime
Jobs and Supply Chain
New York State

Provide advice and recommendations to inform decision-making at multiple geographic scales

Ad Hoc Specialist Committees

Provide expertise and develop guidance to inform projects and actions

Fishing/Environmental Technical Working Groups

- Offshore Wind Developers
- Topical Experts
- Regional State Agencies
- Federal Agencies

advisory members observers

Broader stakeholder community

Use outreach mechanisms to encourage two-way information flow

Discuss project-specific Fishing and Environmental Mitigation Plans

- Selected Developer A
- Selected Developer B
- Selected Developer C
Mitigation Plan Collaboration

These working groups are critical stewards of New York State’s projects and provide valuable representation, technical insight, and constructive solutions.

- Empire Wind and Sunrise Wind have developed Mitigation Plans, which are appended to the executed contracts and published with the Phase 1 Report.
- Developers met with the Environmental and Commercial Fishing Technical Working Groups to present Mitigation Plans.
- Productive dialogues and written feedback will inform next round of edits, to be published on the TWG websites.
- Mitigation plans will continue to evolve as part of an iterative process.
Ongoing Supporting Activities

Environmental (E-TWG)

- New E-TWG Website! [www.nyetwg.com](http://www.nyetwg.com)
- Synthesis of monitoring and mitigation practices (MMPs)
- Specialist Committees working towards BMPs for marine mammals and sea turtles and birds and bats for inclusion in future procurements
- Development of a Regional Science Entity
- Coming next Spring – 2nd State of the Science Workshop: Cumulative Impacts

Commercial Fishing (F-TWG)

- Refinement of Transit Lane Workshop Data
- Identification of information-sharing and research needs, leading to NYSERDA funded research initiatives
- Hiring a fisheries liaison
NYSERDA-funded Research

Digital Aerial Surveys
- Recently completed a 3-year, quarterly digital aerial survey of birds, marine mammals, sharks and fish shoals across the New York Bight
- Full reporting in early 2020
- More than 3.5 million images collected

Metocean Buoys in the New York Bight
- Two floating LiDAR (light detection and ranging) buoys deployed in 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

Issuing an RFP to conduct Geophysical and Geotechnical Surveys
NYSERDA-funded Research

5 New Contracted Studies

• Strategies and Tools to Address Commercial Fishing Access in Offshore Wind Farms; National Renewable Energy Laboratory (NREL)

• Creation of a Fishermen’s Data Trust for effective inclusion of fishermen's knowledge in OSW decision making; Responsible Offshore Development Alliance (RODA)

• Multi-Scale Relationships Between Marine Predators and Forage Fish; Biodiversity Research Institute

• Wildlife Distribution Modeling in the New York Bight; Ecology and Environment

• Development of Monitoring Protocols for Nanotag Studies at Offshore Wind Farms; US Fish and Wildlife Service
Ongoing Supporting Activities

Maritime (M-TWG)
- Tailored briefings from Empire Wind and Sunrise Wind
- Ongoing collaboration between key government regulators as projects advance
- Engaging technical consultant to address research scope approach and discrete topics
- Obtaining input on offshore wind development best management practices to address maritime issues

Jobs and Supply Chain TWG
- Ongoing collaboration to support New York’s supply chain and workforce
- Development of the NYS Offshore Wind Training Institute (OWTI) and the Community and Workforce Benefits (CWB) Fund
- Providing input to influence the Port Infrastructure RFQL and OSW Technical and Training Workshop (November 15, Farmingdale State College)
National R&D Consortium

Goal: Facilitate a nationally-focused, not-for-profit organization collaborating with industry on prioritized R&D activities to reduce the levelized cost of energy (LCOE) of offshore wind in the U.S. and maximize other economic and social benefits.

Project Value: $41 M ($20.5 M DOE funds, matched by NYSERDA) – plus member contributions

CARRIE CULLEN HITT
named first Executive Director

10 Developer members
3 Public Sponsor states in addition to New York
2 Private Sponsor members

Accepting R&D Proposals
to be reviewed on a continuing basis (NYSERDA PON 4124) for three 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
Organization Chart

Board of Directors

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Vice Chair
Jan Matthiesen

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Derek Stilwell

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Mary Beth Tung

Maryland Energy Administration
Mary Beth Tung

Virginia DMME
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OSW Project Developer Members

Avangrid Renewables
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Enrique Alvarez-Uria

Northland Power
Nizar Yousef

Shell
James Cotter

EnBW North America
Kris Ohleth

Ørsted
Christen Wittman

Vineyard Wind
Jordan Shoesmith

Consortium Advisory Group Members

R&D Advisory Group (RDAG)

Environmental Advisory Committee (EAC)

Tech to Market Group (TTM)

Manufacturing Supply Chain & Service Provider Council (MSSC)

Consortium Staff

Technical

Legal

Finance & Human Resources

Consortium Advisory Group Members

*Research and Development Committee Chair

**Research and Development Committee Chair
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First Project Selected for Contract Negotiation

“Shared Mooring Systems for Deep Floating Wind Farms”

- Project will assess the potential of shared mooring lines to reduce floating wind farm costs by connecting adjacent turbine platforms and distributing load throughout the wind farm.
- Reducing the number of anchors and mooring lines has potential to lower costs for deep water floating systems.
- NREL will design and update their modeling tools to support floating wind farms with shared mooring systems.
- Feasibility study will help inform future work of Consortium partners and developers as they consider best practices for advancing offshore wind energy in an environmentally and economically responsible way.
Supporting a New York OSW Supply Chain and Workforce
Port Infrastructure Investments

$87 Million Committed by Project Developers

- Long-term investments in port infrastructure and cutting-edge technologies

$200 million committed by NYS

- Port Infrastructure RFQL submissions received on November 15
- Two-phase process to select proposal(s) for public/private investment in port infrastructure that will drive economic development and job creation in New York State
Workforce Development Workshop

November 15, 2019
Farmingdale State College

- Connecting industry, academia, labor, businesses, and government to identify workforce training needs and address gaps
- 215 attendees from Long Island, all 5 New York City boroughs, The Capital Region, The Hudson Valley, Syracuse, and beyond New York (MA, PA, NJ, CT, and more!)
- 9 industry presentations and 3 workforce development panelists
Engaging with Stakeholders Early and Often
Thanks for Joining Us!

• 7 Open Houses across New York City, Long Island, and Albany

• NYSERDA’s Offshore Wind Team with the two project developers, Empire Wind and Sunrise Wind

• Presentation of the two contracted projects and an hour-long poster session for informal conversations

• Average of 65 attendees per event
Public Engagement

Public & Stakeholder Meetings
Outreach to Public Officials
September Open Houses
2020 Priorities

Upcoming Events will be posted on the Offshore Wind Events Page:

wind.ny.gov
Questions?

www.nyserda.ny.gov/offshorewind
Offshorewind@nyserda.ny.gov