Agenda

- Welcome
- NYSERDA Overview
- Empire Wind
- Sunrise Wind
- Poster Session
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

100% Clean Electricity x 2040
Why Offshore Wind?

• Enormous potential for clean, renewable, and locally produced power where demand is highest

• Significant investments in infrastructure and communities

• Major new source for thousands of short- and long-term skilled jobs

• More diverse, resilient electricity supply

• Avoids harmful greenhouse gas emissions that contribute to climate change
**BOEM - The Federal Role**
- “Landlord” of lease areas
- Oversees leasing process
- Oversees all federal permitting processes: Site Assessment Plans, Construction and Operations Plans, Environmental Assessments

**New York - The State Role**
- Buyer in long-term revenue contracts with projects
- State permitting processes
- Energy policy and strategy development
- Stakeholder engagement
- Supply chain and workforce development
- Research and data development
- Regulatory activities related to offshore energy development

**Developers - The Industry Role**
- Design, finance, build, and operate projects
- Supply chain planning including ports development and top-tier procurement
- Fulfill federal and state permit requirements
- Stakeholder engagement throughout development

NYSERDA, DOS, DEC, DPS
New York’s Priorities

- Environmental and Fisheries Mitigation Plans
- Community Outreach Plans
- Project Labor Agreements
- Prevailing Wage
- New York Supplier Opportunity
COMPETITIVE SOLICITATION, 2018

Record
Competition

4 proposers
18 bids

Evaluation Criteria

70% price
20% economic benefits
10% project viability
1,696 MW of offshore wind capacity

Enough to power over 1 million New York homes

AWARD RESULTS: TWO PROJECTS

THE LARGEST COMMITMENT TO OFFSHORE WIND BY A STATE IN U.S. HISTORY

Contracted MW By State:
- Connecticut
- Maryland
- Rhode Island
- Massachusetts
- New Jersey
- New York

Graph showing contracted MW by state.
AWARD RESULTS: TWO PROJECTS

2019: Project Kick-off
- Manufacturing and Assembly at Capital Region ports

2024: Project Commissioning
- Staging and Installation in New York Harbor
- Operations and Maintenance from Brooklyn and Port Jefferson

~2050 (25-Year Contracts)

- Empire Wind Project 816 MW
- Sunrise Wind Project 880 MW

- Proposed Port Facility
- Proposed Onshore Substation
- Lease Area
- Proposed Project Area
Economic and Job Opportunities

AWARD RESULTS: TWO PROJECTS

$3.2 billion in combined private sector investments both upstate and downstate

$287 million in combined investments, with Governor Cuomo’s 2019 State of the State commitment to port infrastructure, in long-term port facilities and cutting-edge technologies

1,600 Jobs in project development, component manufacturing, installation, and operations maintenance

Directly offering well-paying careers with salaries of over $100,000 per year
NYS Investments

$20 million
Offshore Wind Training Institute

$3 million
Community and Workforce Benefits Fund

in combined public and private investments
New York Offshore Wind 1,826 MW
Let’s power New York’s future together

Julia Bovey  
Director, External Affairs | Equinor Wind US

Bringing European experience to the US  
Almost 2,000 MW in Permitting, Planning and Operations

Empire Wind Key Facts

• Gravity-Based (Concrete) Foundations manufactured in the Capital Region
• Operations and Maintenance (O&M) base in New York City
• Proposed onshore substation: Gowanus
• Production Commencing: 2024+
• Reduced CO₂ emissions of 1.6 million tons per year
Empire Wind: Providing great benefits to New York

Creating thousands of jobs during construction and operations

- Creating a manufacturing hub for concrete foundations at Port of Coeymans
- More than $60 million in port upgrades
- Proposed point of final foundation stating at Homeport Pier, Staten Island
- Establishing a community benefits fund of $4.5 million

Proposed O&M base at South Brooklyn Marine Terminal

- Direct labor: approx. 50-70 full-time jobs
- Indirect labor: additional staffing working from the base:
  - Turbine suppliers
  - Vessel workers
  - Other contractors – e.g. Installation and construction contractors, equipment contractors, vessel captains, etc.
Empire Wind: Responsible siting and permitting

New York State
• Environmental and Fishing Mitigation Plans
• Article VII Process

BOEM
• Site Assessment Plans (SAP)
• Construction and Operation Plan (COP)
• Environmental and Technical Review

Stakeholder Engagement
Contact: Julia Bovey
Director, External Affairs
jbov@equinor.com
www.empirewind.com
Twitter: @EquinorWindUS
Sunrise Wind is bringing unparalleled experience in developing offshore wind to New York

**Offshore Wind Pioneer**
Built the first offshore wind farm in the world, the first in the U.S. and developing the largest project portfolio in the country

**Global Leadership**
20+ years experience building offshore wind farms

**Proven Expertise**
25 successful offshore wind farms totalling 5.6GW capacity

**Energy Leader**
100+ year history of operation in Northeast
New England’s largest energy company

**Transmission Expertise**
Premier electric transmission developer

**Northeast Roots**
Deep-rooted knowledge of the region’s electrical system
Sunrise Wind Is Coming To New York
880 MW of Clean, Reliable Energy

Energy Where It’s Needed
– Located 30+ miles over the horizon from Montauk, NY
– Output delivered over a new submarine export cable to Brookhaven, NY

Energy When It’s Needed
– Production beginning in 2024
– Supports New York’s nation-leading clean energy mandate

Energy For New York
– 800 direct jobs
– 1,500-2,000 indirect jobs
– Committed to paying prevailing wages
– Project Labor Agreement(s)

Renewable energy for 500,000+ New Yorkers
Sunrise Wind Is Investing In New Yorkers
Strategic Initiatives to Position NY for a New Industry

$10 Million to fund the National Workforce Training Center
– Nation’s first training facility dedicated to the U.S. offshore wind workforce
– Hosted by Suffolk County Community College, Long Island
– Innovative partnership between industry, academia, and labor

$1 Million Upper Hudson Workforce Development Fund
– Targeted to advancing the skills of the workforce of the Upper Hudson and Capital Region
– Prepare region to be a hub of OSW fabrication and logistics
Sunrise Wind Is Investing In Major Port Infrastructure Upgrades

$10 Million New York Ports Infrastructure Development Fund

• Supporting major port infrastructure upgrades at multiple New York ports

Port Jefferson regional operations and maintenance hub

• Complementary use of the port that will not conflict with ferry service
• ~100 permanent, full-time jobs over the 25-year life of project and shorter-term construction jobs

Establishing key foundation component manufacturing facility at a port in the Capital Region
Sunrise Wind Commitment to the Fishing and Environmental Communities

We will…

- Promote the smart growth of the American offshore wind industry
- Focus on maintaining access and navigation in and around our wind farms for all ocean users
- Complete scientific research collaboratively with the fishing and environmental communities
- Be accessible and available
Public Engagement

AWARD RESULTS: TWO PROJECTS

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

Environmental
Commercial Fishing
Jobs/Supply Chain
Maritime

Environmental
Commercial Fishing
Jobs/Supply Chain
Maritime

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

Technical Working Groups
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

Digital Aerial Survey

• Recently completed a 3-year, quarterly digital aerial survey of birds, marine mammals, sharks and fish shoals across the New York Bight
• Full reporting by end of 2019
• More than 3.5 million images collected
New Research

OSW and Fishing Projects in Development

- 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)
Contact Us

offshorewind@nyserda.ny.gov
nyserda.ny.gov/offshore-wind