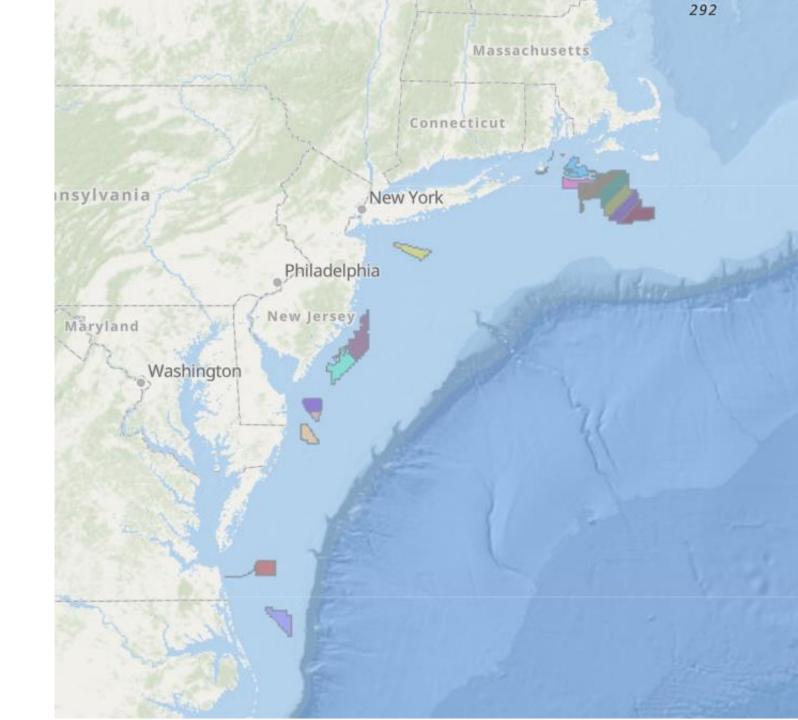
Regional Ambitions for Offshore Wind

- Key component of plans to minimize climate change
- 41 GW by 2030?



Offshore Wind in NY

- >Climate Leadership & Community Protect. Act (2019)
 - Requires 9,000 MW of offshore wind by 2035
- >New York Offshore Wind Master Plan (2018)
 - Call for Technical Working Groups (TWGs)



New York State Offshore Wind

Building a Clean Energy Future

New York State is leading the nation with its commitment to develop 9,000 megawatts of offshore wind energy by 2035, enough to power up to 6 million homes. The first phase of projects is on track to provide 1,696 megawatts by 2024. Multiple project phases will bring over 10,000 jobs and billions in economic investment and establish New York as a leader for the emerging U.S. industry.



2017 - Ongoin

Research and Stakeholder Engagement

New York State Energy Research and Development Authority (NYSERDA) leads design of project guidelines



Permitting and Approvals

Developers identify sites for turbines and substations, map cable routes, and obtain federal, state, and local permits and approvals

2022 - 2024

Construction and Installation Developers install

foundations, lay cables, build substations, and assemble wind turbines

prod

2024 - 205

Operation

Offshore wind projects produce renewable electricity to power New York State (25+ years)

Timeline for 1st phase of projects

(approximate dates)

2019

Proposal Review and Contract Awards

Developers submit proposals to NYSERDA, who reviews and awards contracts



2020 - 2024

Manufacturing

Developers work with supply chain to manufacture and transport components



202

Commissioning

Developers and grid operators conduct pre-operational testing



Visit nyserda.ny.gov/offshorewind for more information on offshore wind in New York State.

The Environmental Technical Working Group





- > Mix of stakeholders with technical expertise
- > Overarching objectives:
 - Better understand and manage potential effects of offshore wind development on wildlife
 - Develop collaborative processes to address priority issues
 - Reduce permitting risk and uncertainty for developers
- > Initiates Specialist Committees to work on specific needs

NY Bird and Bat Related Efforts



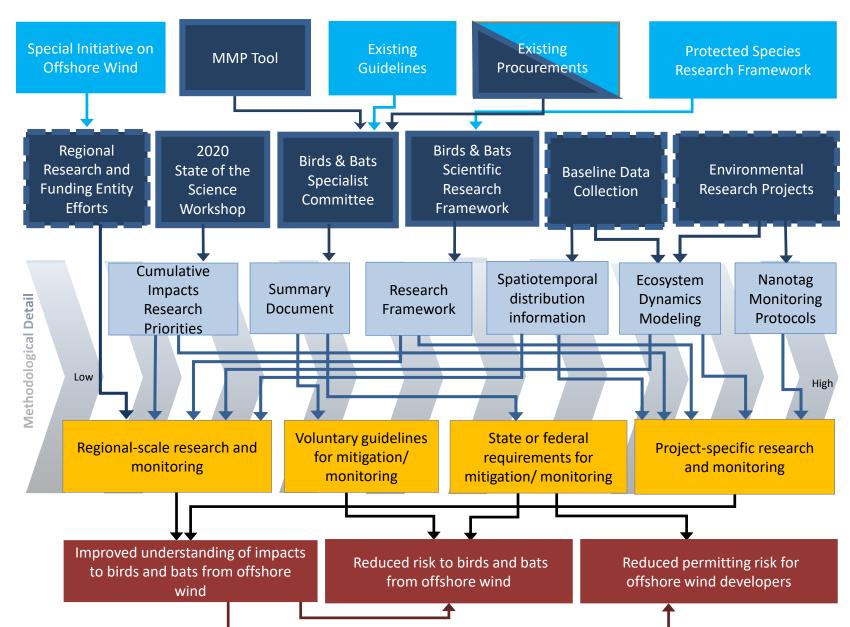


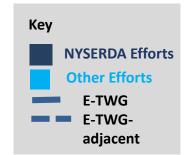
Ongoing NYSERDA Efforts

Outputs

Objectives

Long-term Goals





2020 State of the Science Workshop

Virtual Meeting on Cumulative Impacts to Wildlife and Identification of Research Priorities

- > Dates: November 16-20, 2020; final webinar in May 2021 (date TBD)
- > Who's involved: Offshore wind stakeholders; open to the public

> Components

- Plenary sessions review the state of the knowledge on offshore wind development's cumulative effects on populations and ecosystems
- Working group meetings (ongoing) identify taxon-specific key studies that could be conducted in the next 5 years to improve our understanding of cumulative biological impacts as the offshore wind industry develops in the U.S.
- Final webinar in May 2021 on working group outcomes



Learn More
https://www.nyetwg.com/20
20-workshop



Bird and Bat Scientific Research Framework

- > Who's involved: Offshore wind stakeholders and experts (academics, nonprofits, resource managers, developers)
- > Goal: Guide the long-term study of potential impacts to birds and bats from offshore wind energy construction and operations in the eastern United States
 - Help ensure that research/monitoring efforts focus on key priorities and are appropriately designed to improve the state of knowledge
 - Identify key questions on impacts to birds/bats associated with offshore wind construction and operation; develop testable hypotheses; identify data/technology gaps and needs

> Components:

- Stakeholder workshop (March 4-6, 2020) 44 experts from a range of sectors
- Workshop summary document report just published
- Scientific Research Framework document



Learn More

www.nyetwg.com/bird-batresearch-framework

Or contact

kate.williams@briloon.org

Workshop Report just published



Regional Wildlife Science Entity (RWSE)

- > Origin: Initiated through multiple stakeholder efforts including the E-TWG
- > Who's Involved: Environmental non-profits, offshore wind energy developers, state and federal agencies
- > Objective: Support coordinated research and monitoring of wildlife and offshore wind energy at a regional scale and across offshore wind projects

> Status:

- Initial operational funding in place
- Hiring an organization to manage the RWSE (RFQL is available through link at right; closes Mar. 11)
- Pursuing additional funding through DOE FOA



Learn More

RWSE Vision and RFQL available at:

www.nyetwg.com/regional-wildlife-science-entity

NYSERDA-funded Research



Digital Aerial Surveys

 Quarterly Surveys of the New York Bight to Collect Baseline Data on Wildlife Distributions and Abundance; Normandeau Associates and APEM (2016-2019)

Ongoing Research Studies

- Development of Monitoring Protocols for Automated Radio
 Telemetry Studies at Offshore Wind Farms; US Fish & Wildlife Service
- Wildlife Distribution Modeling in the New York Bight; WSP
- Multi-Scale Relationships Between Marine Predators and Forage Fish; Biodiversity Research Institute



Get Involved

Contact

<u>Kate.McClellanPress@nyserda</u>
.ny.gov for more information



Call for Regional Coordination Among States

Each state has its own processes & goals for offshore wind energy development – but there is considerable potential to:

- Share lessons learned and improved information exchange
- Avoid duplication of efforts on things like environmental mitigation plans
- Be more efficient with everyone's time, since many stakeholders are involved in conversations in multiple states
- Provide increased consistency and market security for developers operating in multiple states

NYSERDA is working with other state agencies to have these conversations - Email <u>Kate.McClellanPress@nyserda.ny.gov</u> to be included in future communications

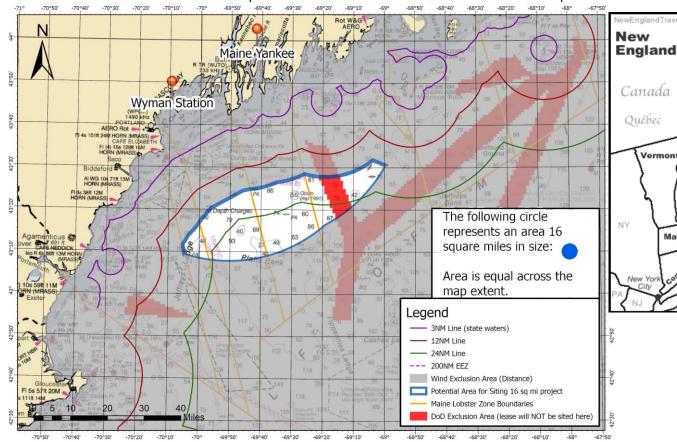


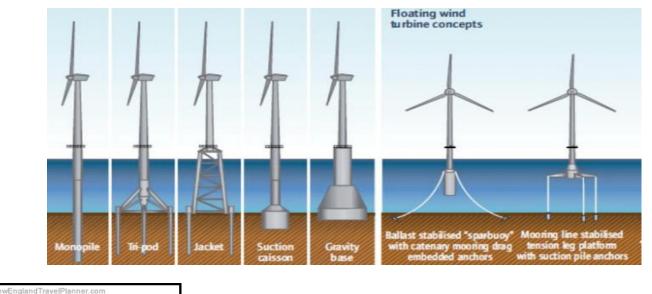
Immediate Opportunities for State Involvement

- >Share/distribute RFQ for the RWSE
 - Available through <u>www.nyetwg.com/regional-wildlife-science-entity</u>
- >Become involved in regional coordination among states on offshore wind and environmental issues
 - Email Kate.McClellanPress@nyserda.ny.gov

Floating turbine technology on the east coast

State of Maine Research Array Potential Area from Which a 16 square mile site will be identified with stakeholder input





Maine

Vermont

Massachusetts

- Suitable for deeper waters (Gulf of Maine, west coast)
- Maine proposing a 12turbine research array (with UMaine and partners)