



NYSERDA

New York Offshore Wind: Regulation & Engineering

September 12, 2019 | NY Energy Forum, Citigroup NYC



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

NYSERDA, DOS, DEC, DPS

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

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**

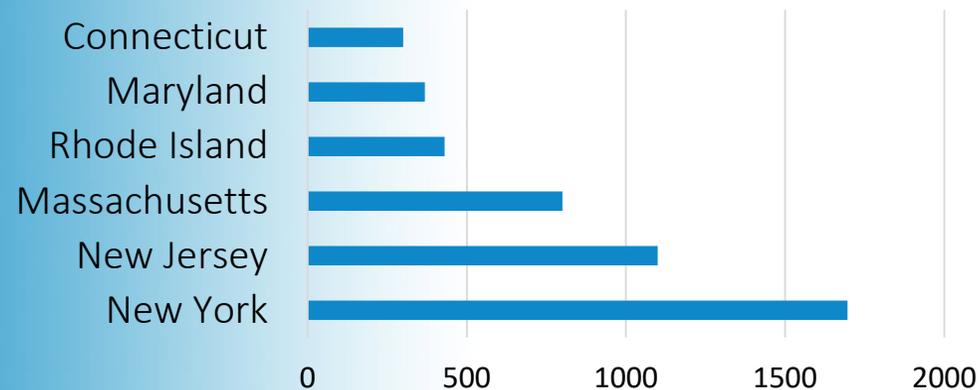
AWARD RESULTS: TWO PROJECTS

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

1,696 MW
of offshore wind capacity

*Enough to power over
1 million New York homes*

Contracted MW By State



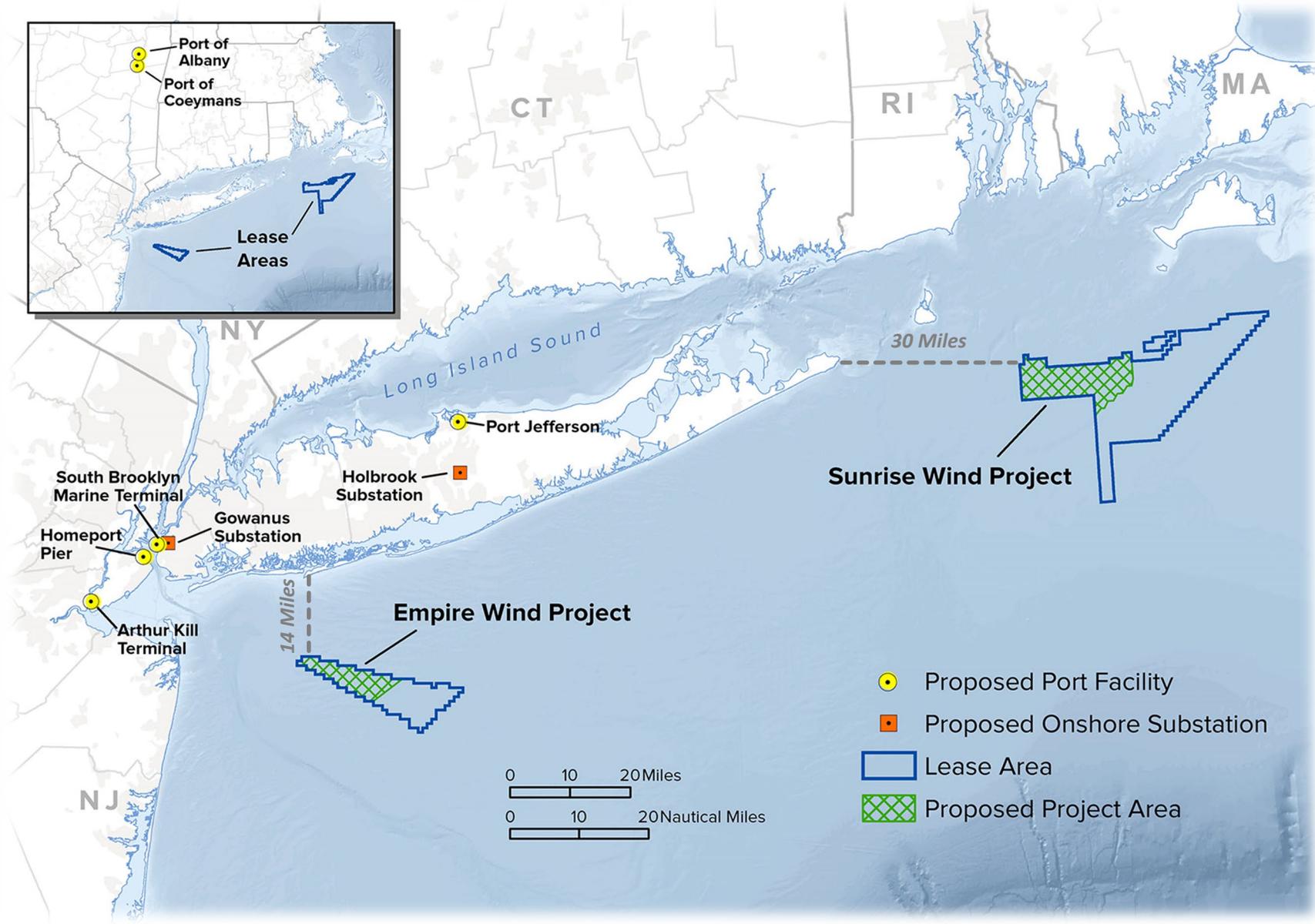
AWARD RESULTS: TWO PROJECTS

Empire Wind

816 MW

Sunrise Wind

880 MW



AWARD RESULTS: TWO PROJECTS

2019: Project Kick-off



Manufacturing and Assembly at Capital Region ports



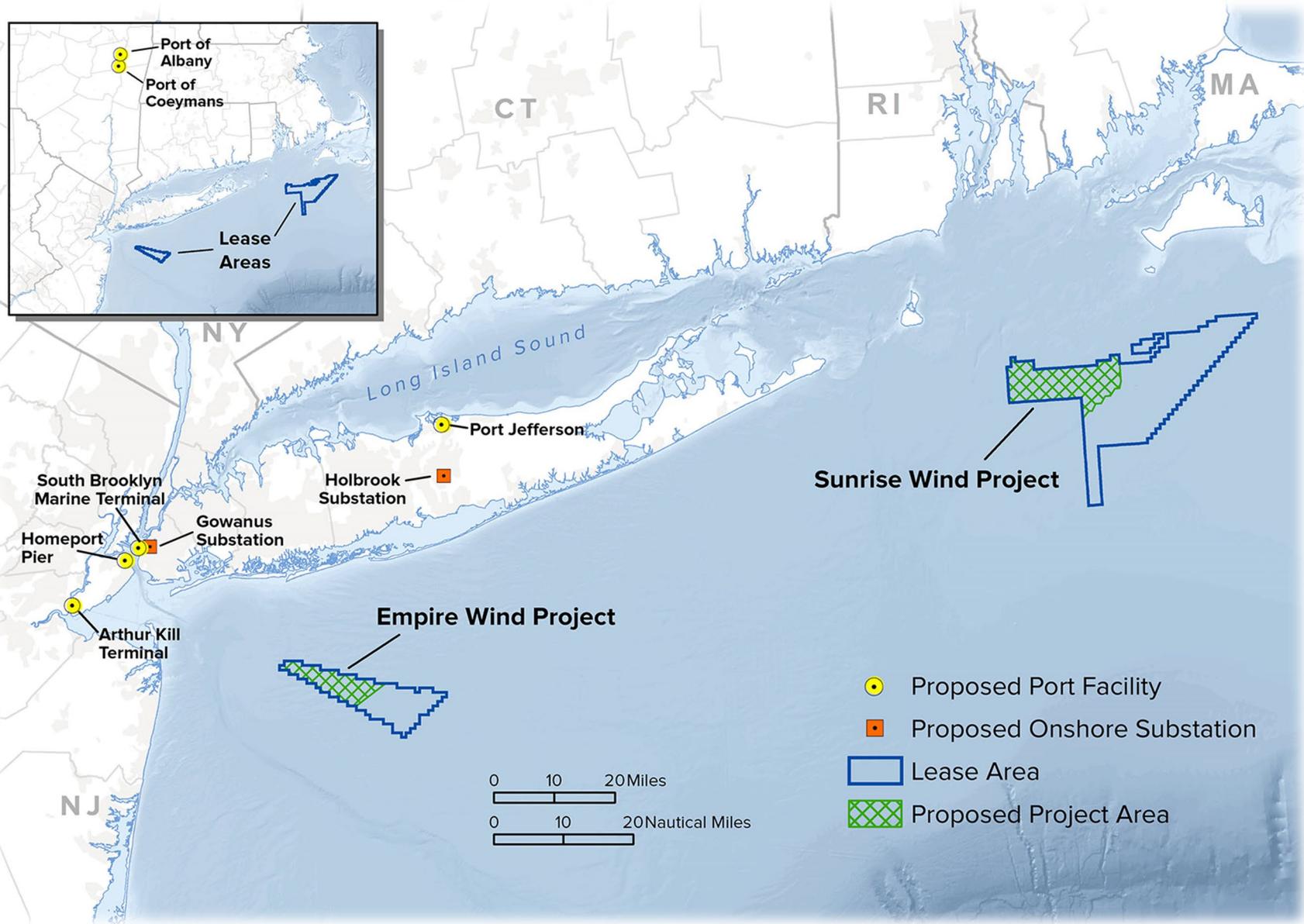
Staging and Installation in New York Harbor

2024: Project Commissioning



Operations and Maintenance from Brooklyn and Port Jefferson

~2050 (25-Year Contracts)



AWARD RESULTS: TWO PROJECTS

Timeline for 1st phase of projects (approximate dates)



Research and Stakeholder Engagement

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

2017 - Ongoing



Permitting and Approvals

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

2019 - 2023



Construction and Installation

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

2022 - 2024



Operations

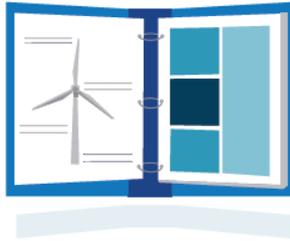
Offshore wind projects produce renewable electricity to power New York State (25+ years)

2024 - 2050+

2019

Proposal Review and Contract Awards

Developers submit proposals to NYSERDA, who reviews and awards contracts



2020 - 2024

Manufacturing

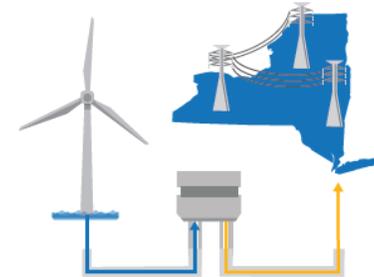
Developers work with supply chain to manufacture and transport components



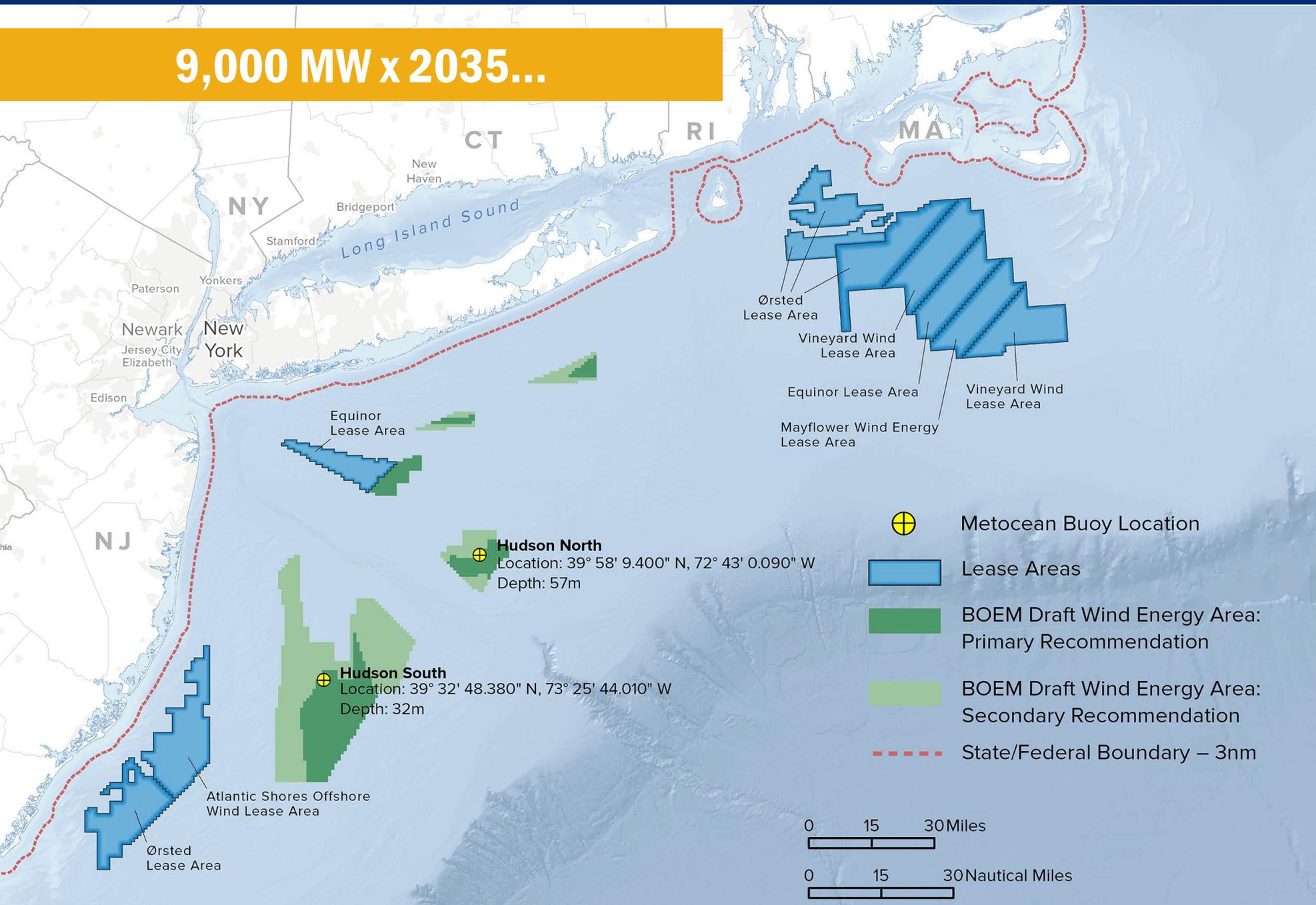
2024

Commissioning

Developers and grid operators conduct pre-operational testing



9,000 MW x 2035...



9,000 MW x 2035...



Image courtesy of Vestas

9,000 MW x 2035...



Image courtesy of Siemens



9,000 MW x 2035...



Image courtesy of Ørsted



9,000 MW x 2035...



Image courtesy of Ørsted



Thank You

Questions?

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