

# New York and New Jersey Offshore Wind Supplier Forum



# Welcome



# State of the State

## New York





# NYSERDA Offshore Wind

January 11th, 2024



**NYSERDA**

# New York's Climate Leadership and Community Protection Act (Climate Act)

**Carbon neutral economy, mandating at least an:**

**85%**  
reduction in emissions  
below 1990 levels  
**by 2050**

**40%**  
reduction  
in emissions  
**by 2030**

**100%**  
zero-emissions  
electricity  
**by 2040**

**70%**  
renewable electricity  
**by 2030**

**9,000 MW**  
of offshore wind  
**by 2035**

**6,000 MW**  
of distributed solar  
**by 2025**

**3,000 MW**  
of energy storage  
**by 2030**

**185 TBtu**  
on-site energy savings  
**by 2025**

**Commitments to  
climate justice  
and just transition**



**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**

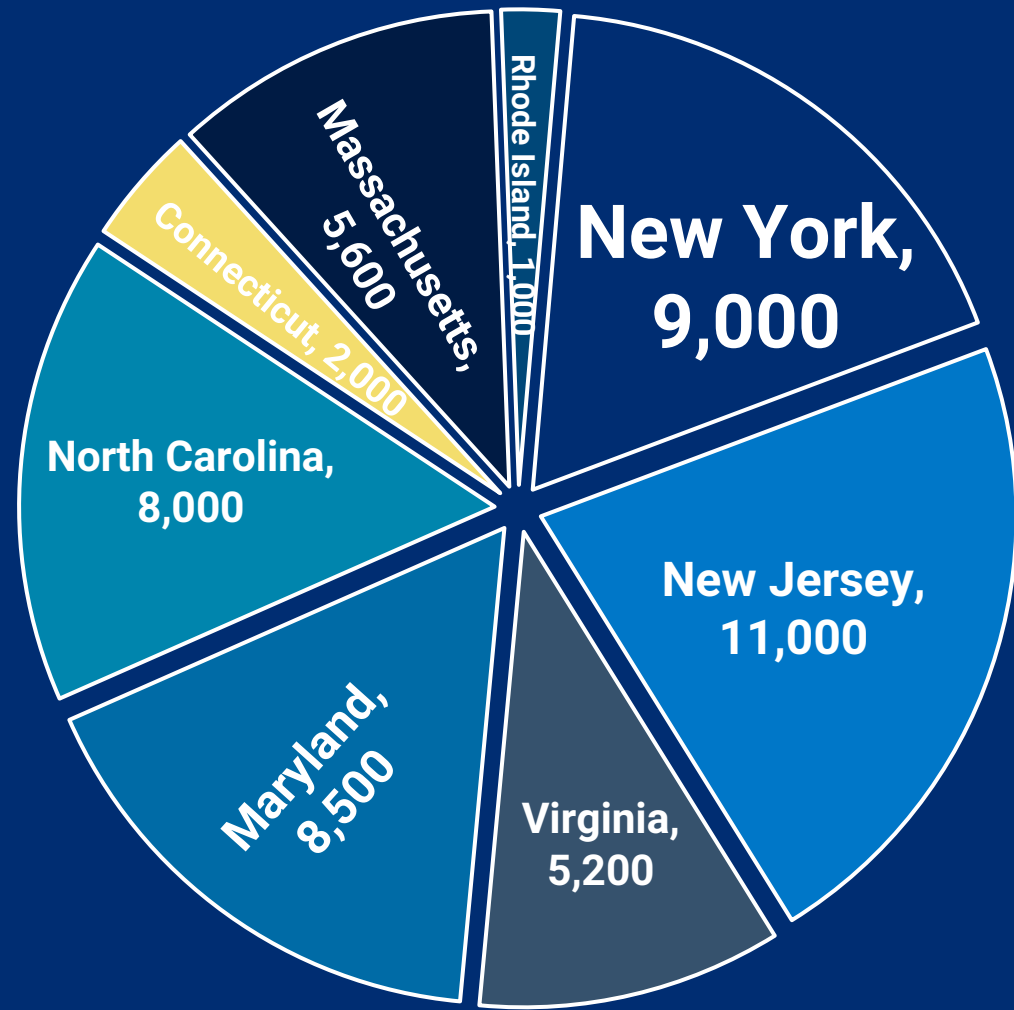


**NEW  
YORK  
STATE**

**NYSERDA**

# EAST COAST Goals:

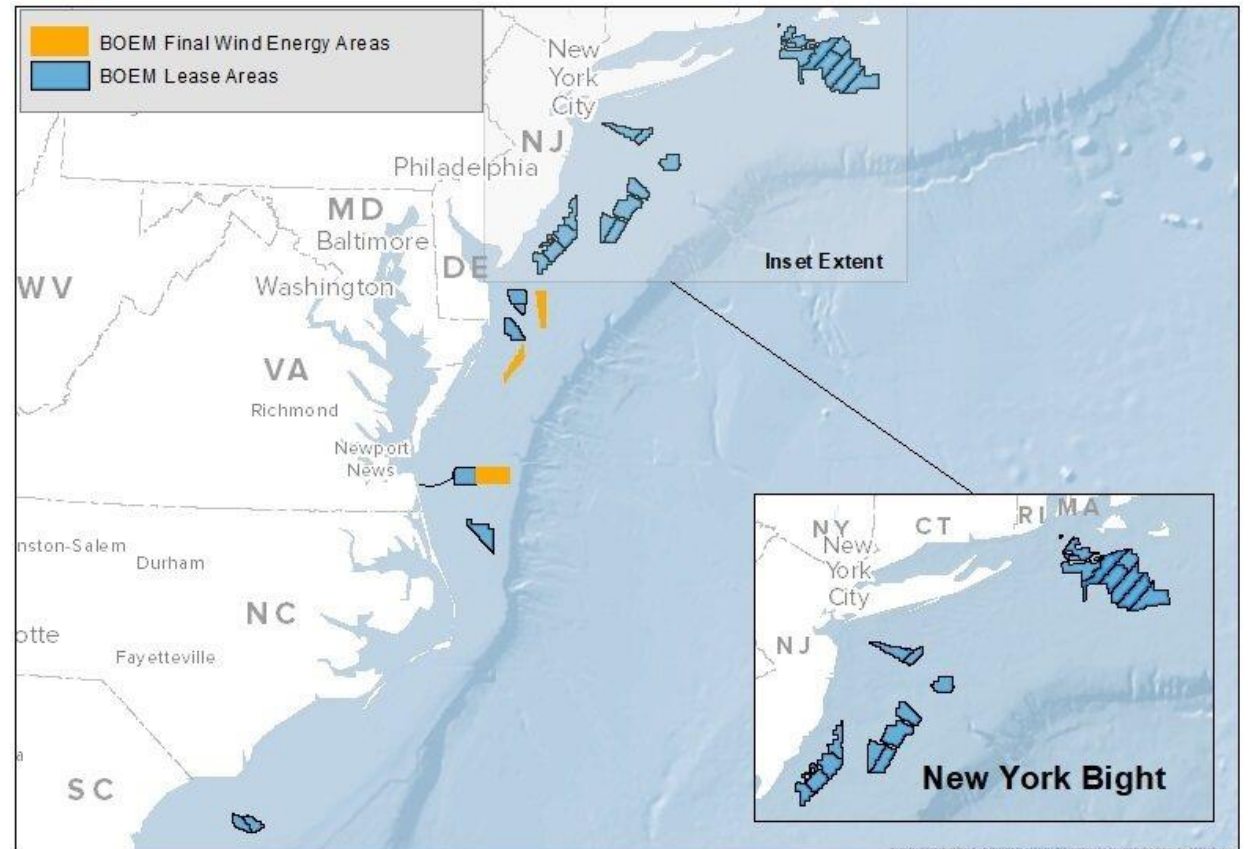
## ~50,000 MW



Offshore Wind Goals in Megawatt (MW) by State

# FEDERAL Offshore Wind Goals:

## 30,000 MW by 2030 and 110,000 MW by 2050



# BOEM

## The Federal Role

- Siting and leasing process for Wind Energy Areas on Outer Continental Shelf
- Federal permitting processes: Site Assessment Plans, Construction and Operations Plans, Environmental Assessments, Cultural Resources

# 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,  
State Historic Preservation  
Office (Parks)**

# 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
- Environmental and Fisheries Mitigations
- Stakeholder engagement throughout development



# New York State's Offshore Wind Program

## **MORE** THAN JUST **ELECTRONS**

Research and Collaboration to Support Responsible Development



Maximize cost-effectiveness for New York State ratepayers



Building a Regional Supply Chain to Support Long-Term Jobs



Placing a Premium on Transparent Stakeholder Engagement



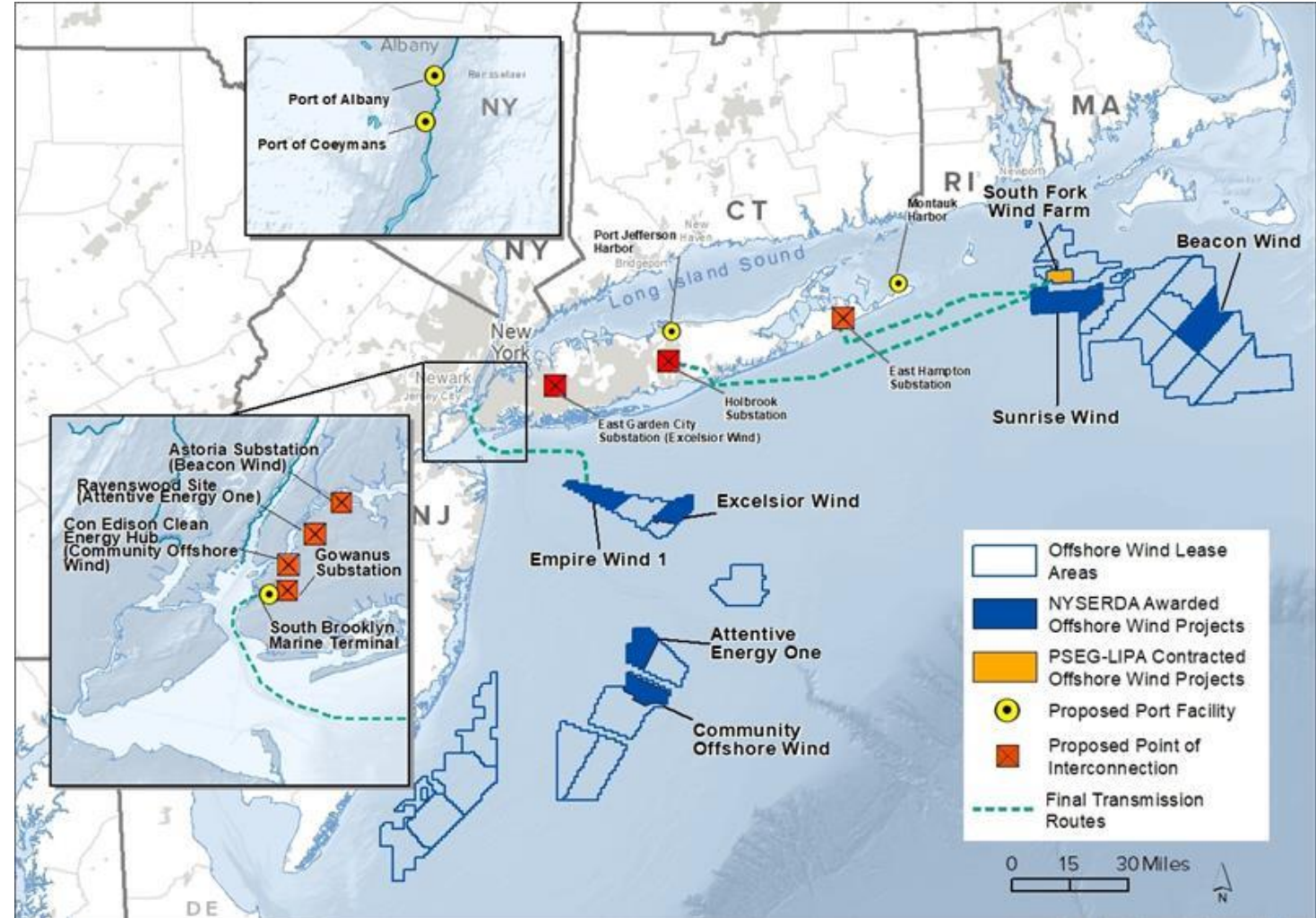
# New York States Current Offshore Wind Portfolio

## New York's Current Offshore Wind Portfolio includes:

- > Seven projects in active development
- > Five ports in active development
- > \$700M state investment in ports and supply chain

## OSW Project milestones:

- > South Fork Wind **under construction** and **delivering power**
- > BOEM released **Final Environmental Impact Statement (FEIS) for Empire Wind** on September 11, 2023
- > BOEM released **FEIS for Sunrise Wind** in Dec. 2023
- > BOEM announced **Notice of Intent to prepare Environmental Impact Statement (EIS) for Beacon Wind** and held public comment period and public meetings in July 2023



Supported by combined public and private investments of more than **\$700 million for port infrastructure**

**Manufacturing** at Port of Albany

Advanced Foundation Component **fabrication** at Port of Coeymans

State-of-the art **staging** facility at South Brooklyn Marine Terminal

Regional **operations and maintenance** hubs at SBMT and Port Jefferson, and additional O&M support at Montauk Harbor

Regional collaboration on a **Supply Chain Shared Vision** to transition to clean energy, create jobs

# Port Investments and Supply Chain Growth



# Public Service Commission Decision



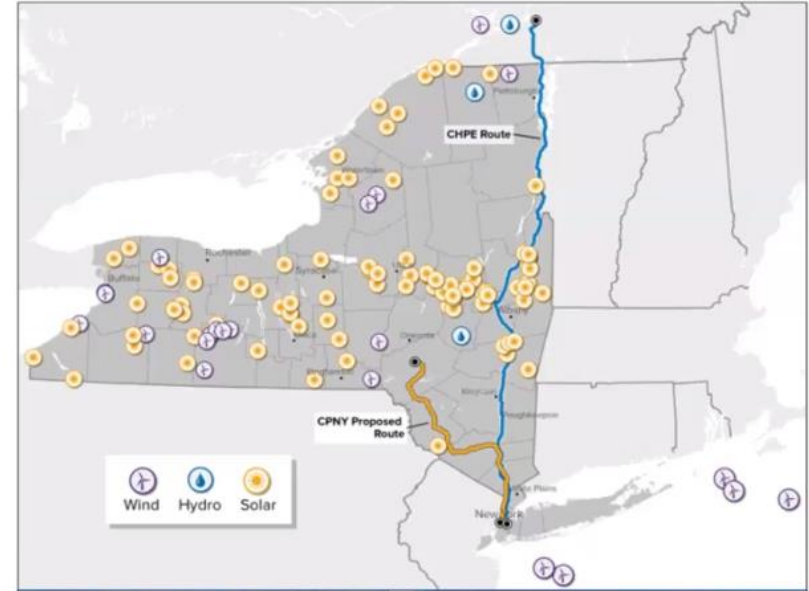
**Public Service  
Commission**

## **PSC Issues Decision to Preserve Competitive Renewable Energy Market and Protect Consumers**

**Denies Petitions Filed by Renewable Energy Developers Seeking Financial Relief**

**Commission Reaffirms Commitment to Achieve Renewable Energy Targets**

**ALBANY** — The New York State Public Service Commission (Commission) today denied petitions filed by a group of offshore wind developers and a state renewable energy trade association seeking billions of dollars in additional funding from consumers for four proposed offshore wind projects and 86 land-based renewable projects. In denying financial relief, the Commission opted to preserve the robust competitive bidding process that provides critically needed renewable energy resources to New York in the fairest and most cost-effective manner that protects consumers.



“NYSERDA remains steadfast in its commitment to develop renewable energy projects on behalf of New Yorkers and is proud to showcase this plan which effectively captures the strategic vision Governor Hochul has for growing a vibrant renewable energy industry. Over the coming months, we will demonstrate to the nation how to collectively recalibrate in the face of an evolving renewables marketplace and address the growing energy and supply chain challenges head-on in a comprehensive, cost-effective and responsible manner.”

**NYSERDA President and CEO Doreen M. Harris**



“The requested amendments to the contracts would have provided adjustments outside of the competitive procurement process; such relief is fundamentally inconsistent with long-standing Commission policy.”

**Commission Chair Rory M. Christian**

# 10-Point Action Plan

**New York State is firmly committed to expanding its vibrant clean energy industry and progressing apace towards its ambitious goal of obtaining 70% of the State's electricity from renewable sources by 2030.**

This comprehensive action plan outlines a set of actions as the foundation for a sustainable future for all New Yorkers while supporting a thriving large-scale renewables industry.

The plan serves to reinforce New York State's dedication to clean energy development, sustainability, and economic growth.

**We remain committed to advancing a cleaner, more prosperous future for our State and our nation.**



### **Action 1: Announce Offshore Wind and Onshore Renewables Awards in the Near Future**

*NYSERDA will announce a historic award of offshore and onshore renewable energy projects along with major supply chain investments.*

These awards will mark one of the largest-ever renewable energy procurements by any state to date and demonstrate New York State's commitment to supporting renewable energy projects and promoting large-scale renewables.

### **Action 2: Execute on Public Service Commission Order and Assess Renewables Portfolio Status**

*NYSERDA will address the directives issued in the October 2023 Public Service Commission (PSC) Order.*

The impacts on its large-scale renewables contracted portfolio will be assessed in an expedited manner.

### **Action 3: Launch Accelerated Competitive Procurements**

*NYSERDA will launch an accelerated renewable energy procurement process for both offshore wind and onshore renewables.*

This aims to backfill any contracted projects that are terminated. The process will be guided by core principles, including prioritizing competition, simplifying bid requirements, incorporating inflation indexing, applying critical labor protections, and collaborating with industry to optimize the accelerated procurement timing—all while coordinating with ongoing transmission planning initiatives.

### **Action 4: Leverage Federal Support and Partnerships**

*New York State is, and will continue to, actively engage with the Federal government to bring forward market solutions.*

This includes establishing a Memorandum of Understanding (MOU) with the U.S. Department of Energy (DOE) Loan Programs Office to access low-cost financing for large-scale renewable projects to advocating for updated guidance on clean energy tax credits and a Federal-State revenue-sharing program.

### **Action 5: Build Transmission Infrastructure**

*New York State is investing and actively planning a historic buildout of transmission infrastructure across the State.*

This includes \$4.4 billion in 62 local transmission projects to support clean energy integration in upstate areas; \$4.1 billion in transmission upgrades to integrate offshore wind and increase reliability for Long Island and New York City; soliciting additional solutions to meet New York City's offshore wind transmission needs; and collaborating with other states and federal agencies on interregional transmission to reduce costs.

### **Action 6: Build the Offshore Wind Supply Chain**

*New York State is actively supporting the establishment and growth of a supply chain ecosystem to help the market scale, gain efficiencies, and reduce costs.*

The State is investing \$700 million in offshore wind supply chain infrastructure, and working with other states and federal agencies to collaborate and reduce costs through a shared vision for a U.S. supply chain.

### **Action 7: Build the Clean Energy Workforce**

*New York State is committed to building and expanding its clean energy workforce.*

NYSERDA has already committed more than \$170 million for workforce development and training initiatives, prioritizing the benefits to priority populations, disadvantaged communities, and transitioning fossil fuel workers to clean energy careers. Starting in 2024, the New York Power Authority will contribute up to \$25 million annually to the Department of Labor for renewable energy training, ensuring a Just Transition for energy workers. In addition, NYSERDA is putting workforce development, inclusion, and equity in the forefront of New York's large scale renewables industry.

### **Action 8: Plan for Next Phase of Offshore Wind Deployment**

*New York State's Offshore Wind Master Plan 2.0 will provide a plan for the future of offshore wind development, including in deeper waters, that will allow for the expansion of the industry and ability to meet regional development targets.*

By planning for and seeking an increase in available lease areas, New York would increase access to necessary offshore areas to host projects, increase competition in the market, and expand the pool of developers, while introducing new ideas and innovation to reduce costs.

### **Action 9: Engage in Active Industry Outreach and Dialogue**

*New York State is actively engaging with industry stakeholders.*

Such outreach will increase following the PSC order through roundtable discussions to receive input in shaping our clean energy strategy.

### **Action 10: Advance Public Engagement and Outreach**

*New York State is deeply committed to fostering public engagement and outreach, transparency, and collaboration.*

We recognize the importance of involving various stakeholders in shaping our clean energy initiatives.

## Action 1:

# Announce Offshore Wind and Onshore Renewables Awards

## **NYSERDA's Third Offshore Wind Solicitation (ORECRFP22-1)**

- **Attentive Energy One (1,404 MW)**
- **Community Offshore Wind (1,314 MW)**
- **Excelsior Wind (1,314 MW)**
  - > Represents 12% of the State's energy load
  - > Enough energy to power 2 million homes
  - > \$15 billion in anticipated in-state spending, including \$3.4 billion in commitments to spending in Disadvantaged Communities
  - > More than \$85 million to support wildlife and fisheries research, mitigation, and enhancement

## **\$300 million state investment in the nation's first blade and nacelle manufacturing facilities in New York's Capital Region**

- > Leveraging more than \$2 of privately-committed capital for every \$1 of New York State funding
- > Total investment of \$968 million

# Action 3: Launch Accelerated Competitive Procurement

## NYSERDA's Fourth Offshore Wind Solicitation (ORECRFP23-1)

Event	Date (all times ET)
RFP Release Date	November 30, 2023
<a href="#">Responses to Written Questions</a> [PDF]	Posted December 29, 2023
Proposal Submission Deadline	January 25, 2024, 3:00 p.m. ET
NYSERDA Award Notification Date	Expected February 2024
Contract(s) Executed	Expected Q2 2024

Please note that the above dates are subject to change.

## Key Solicitation Provisions

- > Allows for expedited preparation and review of proposal submissions
- > ORECRFP23-1 provides flexibility for a variety of proposals, including for projects that currently hold contracts with NYSERDA but commit to conditional termination
- > In addition to required Environmental Mitigation Plans, Fisheries Mitigation Plans, Stakeholder Engagement Plans, and New York Workforce and Jobs Plans, Proposers must **demonstrate a detailed understanding of potential benefits and burdens to Disadvantaged Communities** from their projects
- > New York Buy American Act, the solicitation sets a minimum U.S. iron and steel purchase requirement for all projects awarded
- > Proposals may include a price structure where the project's price would be subject to a one-time adjustment
- > Proposals may also include a price structure that contemplates an Interconnection Cost Sharing approach



# Action 5: Build Transmission Infrastructure

## Long Island PPTN

Propel NY project selected by New York Independent System Operator (June 2023)

- \$3.26 billion project selected to increase export capability from Long Island such that at least 3,000 MW of offshore wind is deliverable to the rest of NYS
- Developed by the New York Power Authority (NYPA) and New York Transco (NY Transco)
- Includes building submarine cables between Long Island and the Bronx and Westchester, as well as a 345-kilovolt transmission backbone that will span western and central Long Island

## Cable Corridor Constraints Assessment

Published by NYSERDA (January 2023)

### Goals:

- Document environmental, technical, and stakeholder constraints, as well as opportunities, concerns, impacts, and risks of potential cable corridors
- Inform potential future policy actions that maximize the benefits of OSW and minimize conflicts and impacts

## New York City PPTN

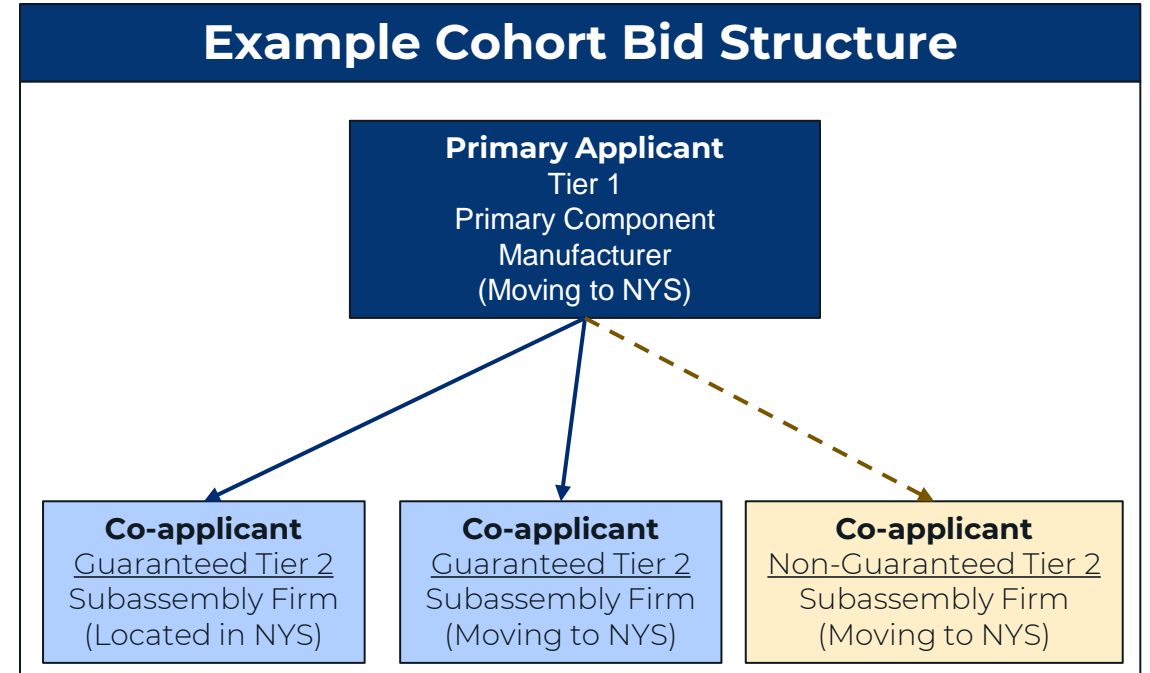
PSC Order declared Public Policy Transmission Need (PPTN) for New York City (June 2023)

### Specifications:

- Unbundles transmission and generation for OSW
- Seeking transmission solutions that can deliver at least 4,770 MW of OSW generation into Zone J (NYC)
- Cable Corridor Constraints Assessment and multi-agency working group inform process

# Action 6: Build the Offshore Wind Supply Chain

<b>Proposal Structure</b>	<b>Stand-alone Proposal</b> from Single Offshore Wind Supply Chain Firm Or <b>Cohort Proposal</b> from Multiple Offshore Wind Supply Chain Firms
<b>Eligible Projects</b>	<b>Primary Components</b> (Tier 1), <b>Subassemblies</b> (Tier 2), <b>Subcomponents</b> (Tier 3), <b>Raw Materials Production</b> (Tier 4), and <b>Ports</b>
<b>Funding Available</b>	<b>Up to \$200M</b>
<b>Fund Disbursement Schedule</b>	<b>25%</b> - Construction Start, <b>50%</b> - Construction Completion, <b>5% Annually</b> - First 5 Years Operation



# Action 7: Build the Clean Energy Workforce



## OffshoreWindTraining.ny.gov

Career Pathways and Training Opportunities

### Career Pathways, Project Phases, Job Descriptions

### Find Training Locations

Select a project phase

Planning and Development   Manufacturing and Assembly   Construction and Installation   Operations and Maintenance

**Planning and Development** is the initial phase for offshore wind projects that involves identifying sites for needed facilities, collecting and analyzing project data, conducting environmental reviews, securing financing and permits, designing the power plant, and securing all components required for construction. This phase takes at least two years, typically longer, depending on the project, but for New York State's projected development, this phase would take roughly seven years.

Pick a job at any career level

Entry-Level	Experienced	Advanced
ENGINEER	LEAD ENGINEER	ENGINEERING TEACHER
MAINTENANCE WORKER	ELECTRICIAN	MASTER ELECTRICIAN
OPERATIONS RESEARCH ANALYST	GENERAL AND OPERATIONS MANAGERS	
COMPUTER OCCUPATIONS	SUPERVISOR	

VIEW JOBS RELATED TO EACH JOB TYPE

View opportunities as: VIEW AS A MAP VIEW AS A LIST

Apprenticeships   Ports   Training Facilities   Direct Entry Programs

# Action 8: Plan for Next Phase of Offshore Wind Deployment

## What's on the Horizon in 2023?

### Master Plan 2.0: Deepwater

- > **Provide a high-level strategy** for developing lease areas in **deeper water** (greater than 60 meters in depth)
- > **Serve as an organizing principle** for offshore wind work to ensure a continued, robust, transparent, and proactive stakeholder engagement that is aligned to meet New York's goal of 9,000 MW and beyond
- > **Characterize the risks and opportunities** for offshore wind development and provide a comprehensive, sequential, and logical approach for achieving the State's offshore wind goals in support of New York State policies

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**Educational webinar series featuring outside  
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available at [nyserderda.ny.gov/osw-webinar-series](http://nyserderda.ny.gov/osw-webinar-series)**

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Offshore  
Wind

# Questions | Discussion

[Offshorewind@nyserda.ny.gov](mailto:Offshorewind@nyserda.ny.gov)

# Thank you.

Offshorewind@nyserda.ny.gov



NYSERDA

# State of the State

## New Jersey







# New Jersey's Offshore Wind Economy 2024

NJ/NY Supplier Forum  
January 11, 2024



# Agenda

- ▶ New Jersey's offshore wind commitment
- ▶ Our strengths - Wind Port, Wind Institute, business readiness programs
- ▶ De-risking, supporting and helping your business in New Jersey



# New Jersey is an emerging hub for offshore wind

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Strong **political commitment** and **central location**



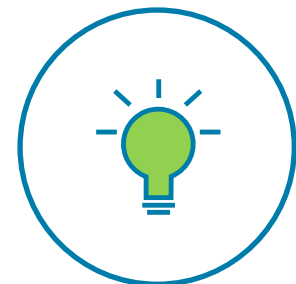
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**11,000 MW of procurement** over the next 10 years



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**Port and supply chain investments** to support offshore wind



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**Strong workforce, research, & innovation infrastructure**



# Strong Political Support

**Everything Is Bigger In New Jersey, Including Offshore Wind Power**



**New Jersey More Than Doubles Offshore Wind Target To 7.5 Gigawatts By 2035**

**GOVERNOR MURPHY ANNOUNCES \$250 MILLION TOTAL INVESTMENT IN STATE-OF-THE-ART MANUFACTURING FACILITY TO BUILD WIND TURBINE COMPONENTS TO SERVE ENTIRE U.S. OFFSHORE WIND INDUSTRY**

**Murphy signs law to save wind farm, touting New Jersey as 'foundation' of U.S. wind industry**

The bill cleared the Senate and Assembly on the same day as the state budget last week.

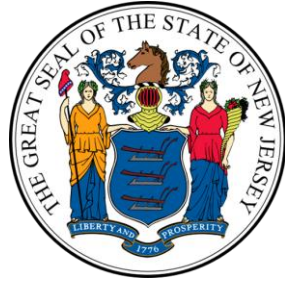
**Governor Murphy Directs New Jersey Board of Public Utilities to Accelerate New Offshore Wind Solicitation**



**Phil Murphy says NJ will target 100% clean energy 15 years ahead of schedule**



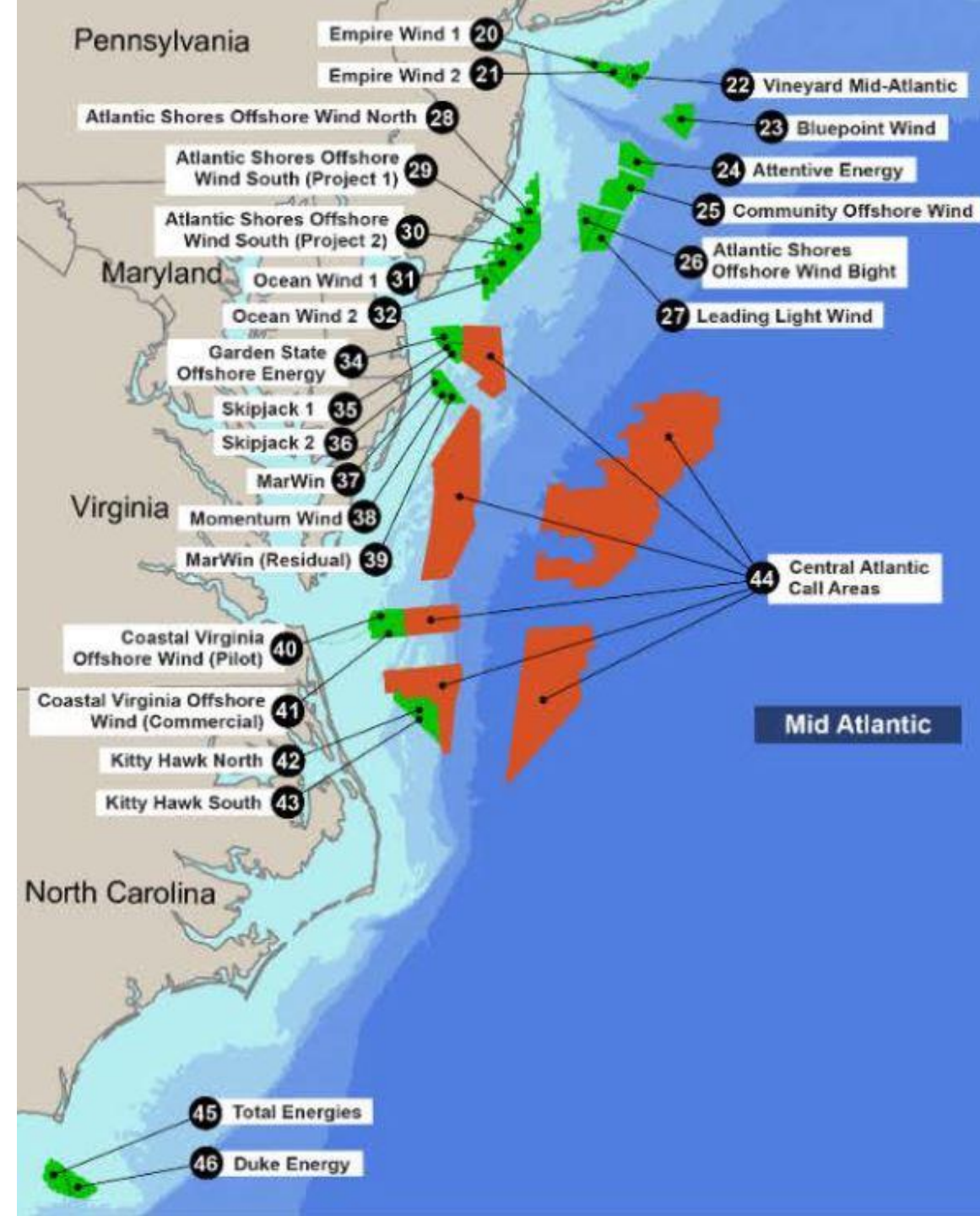
# Whole of Government Approach



# New Jersey is ideally located at the center of the East Coast wind belt

- ▶ More than 50 percent of offshore wind lease areas are within a one day's steam of New Jersey
- ▶ Easy access to more than half of East Coast procurement pipeline
- ▶ Connected to PJM regional transmission organization of 13 states<sup>1</sup>

1. PJM Interconnection coordinates the movement of electricity through all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.





# New Jersey has a clear procurement timeline for 11,000 MW

Project	Capacity Target/ Award (MW)*	Issue Date	Submittal Date	Award Date	Est. Commercial Date
<del>Ørsted Ocean Wind I</del>	1,100	<del>Q3 2018</del>	<del>Q4 2018</del>	<del>Q2 2019</del>	<del>2024-25</del>
<del>Ørsted Ocean Wind II</del>	1,148	<del>Q3 2020</del>	<del>Q4 2020</del>	<del>Q2 2021</del>	<del>2029</del>
Atlantic Shores	1,510				2028
3	1,200 – 4,000	Q1 2023	Q3 2023	Q1 2024	2030
4	1,200**	Q1 2024	Q3 2024	Q1 2025	2032
5	1,200**	Q3 2026	Q4 2026	Q2 2027	2034
6	1,200**	Q3 2028	Q4 2028	Q2 2029	2036
7	1,200**	Q3 2030	Q4 2030	Q2 2031	2038

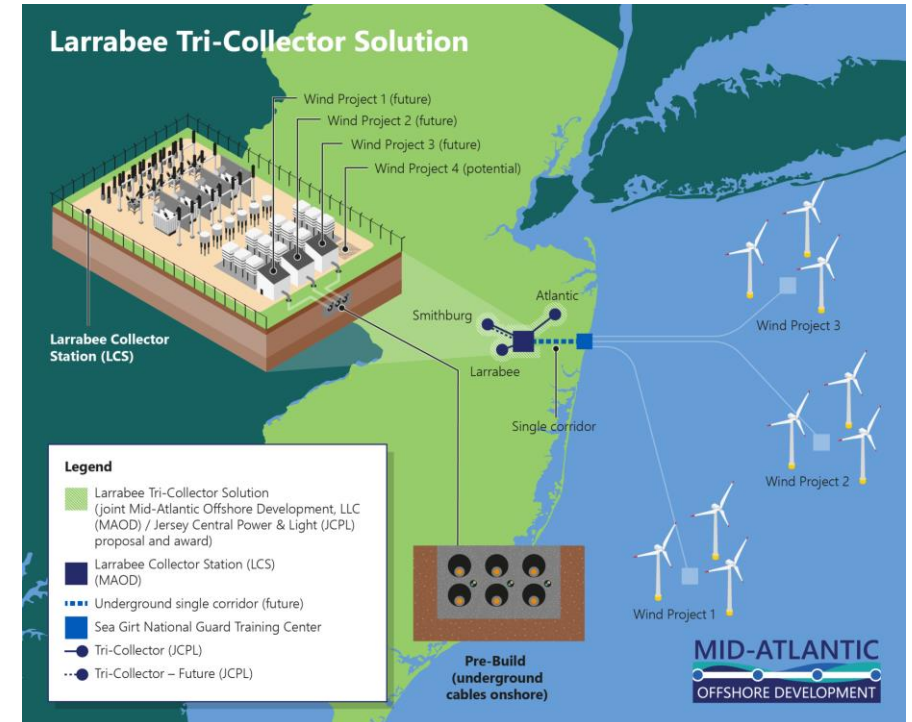
\*The Board may award projects above or below the target  
More info can be found [here](#)

\*\*To be adjusted based on previous solicitation awards



# Innovative Transmission Approach

- ▶ NJBPU awarded the **Larrabee Tri-Collector Solution** proposed by JCP&L and Mid-Atlantic Offshore Development in October 2022
- ▶ **Enables New Jersey to reach its (*previous*) goal of 7.5 GW by 2035** and is incorporated in the 3<sup>rd</sup> solicitation
- ▶ Larrabee Tri-Collector Solution (LTCS) offers a **single onshore interconnection point while leveraging existing right of ways.**
- ▶ Also awarded onshore grid upgrade projects to enable the capacity injection to **Atlantic City Electric, BGE, LS Power, PECO, PPL, PSE&G, and Transource**
- ▶ Will **save NJ ratepayers \$900 million** compared to the cost of transmission without utilizing this coordinated approach through State Agreement Approach (SAA)



**Figure: Larrabee Tri-Collector Solution**

MAOD-JCP&L proposal is estimated to cost \$504 million. The necessary onshore grid upgrade projects are estimated to cost \$568 million, for a total of \$1.07 billion for the full LTCS.



# Agenda

- ▶ New Jersey's offshore wind commitment
- ▶ Our strengths - Wind Port, Wind Institute, business readiness programs
- ▶ De-risking, supporting and helping your business in New Jersey



# NJ is growing the offshore wind supply chain through its ports

## Manufacturing

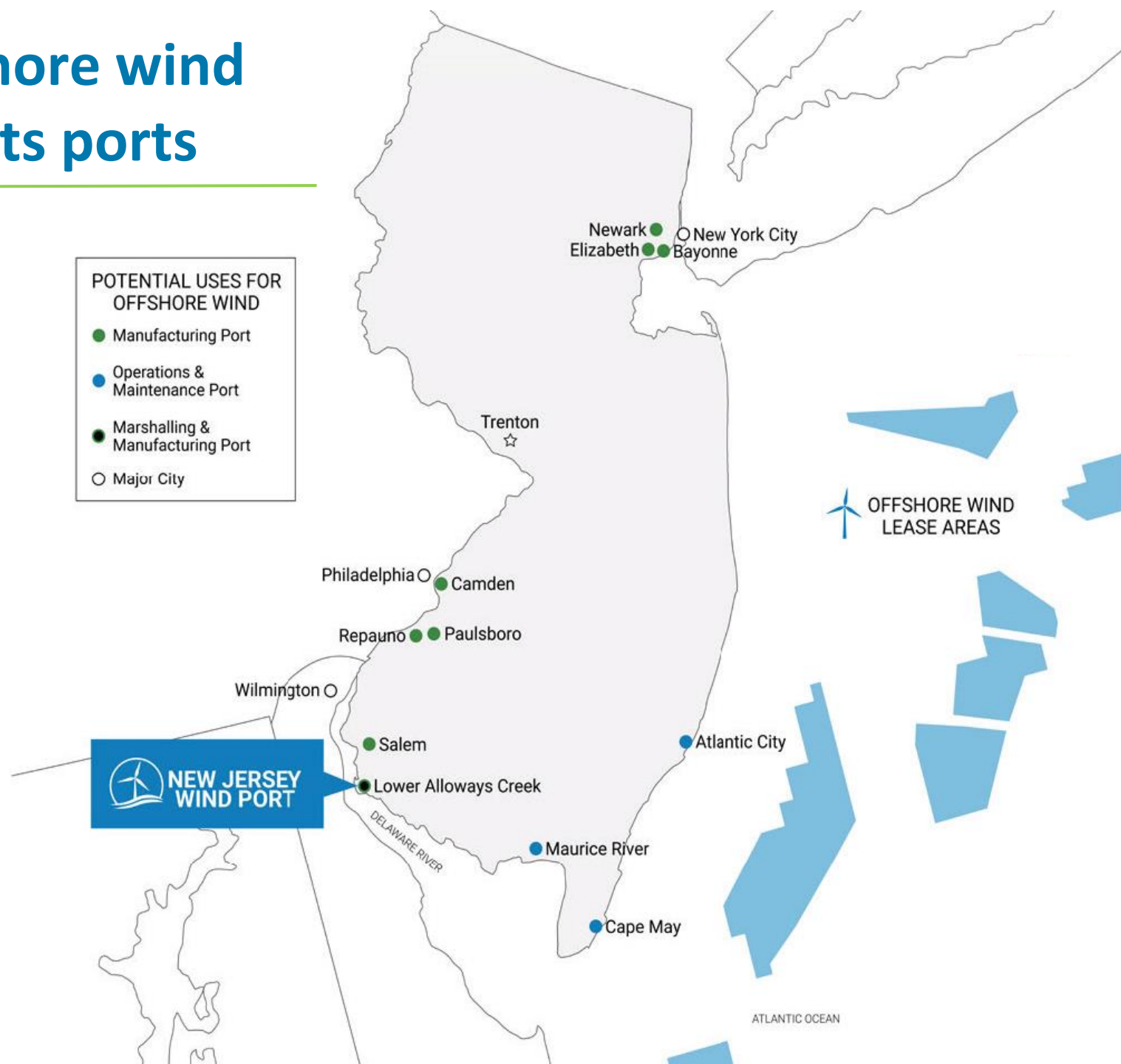
EEW will manufacture **monopiles** at **Port of Paulsboro** and **nacelles** will be assembled at **New Jersey Wind Port** with additional space for towers or blades in the future

## Marshalling

**Atlantic Shores** plans to marshal their projects at **NJ Wind Port**

## Operations & Maintenance

O&M hubs under development in **Atlantic City**





# Offshore Wind Component Manufacturing

## EEW-AOS in Paulsboro

One of the only operational domestic Tier 1 suppliers in the country, for *now*

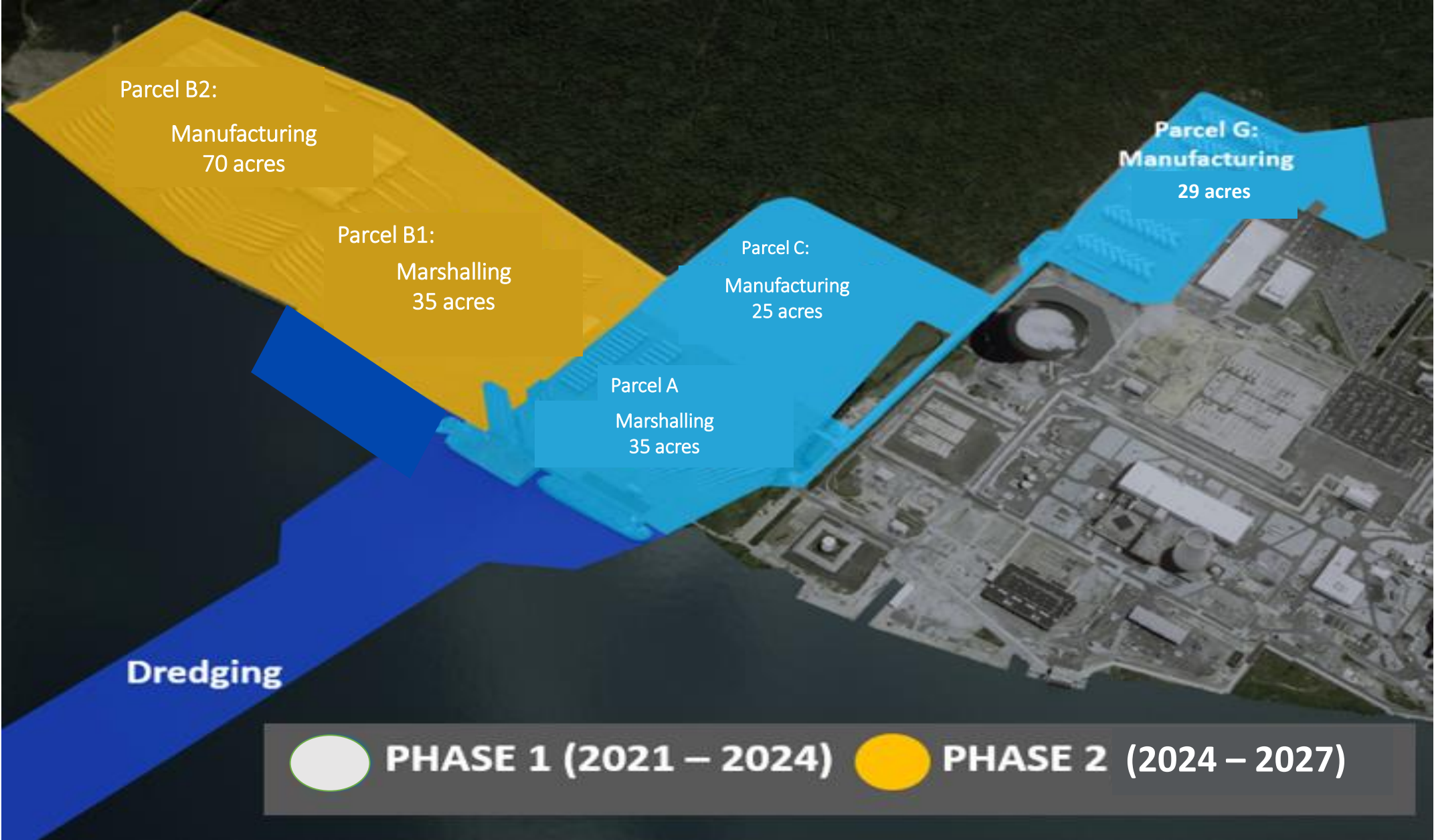


# New Jersey is developing the first purpose-built wind port in the United States

- ▶ Open access to the Atlantic Ocean
- ▶ No bridge restrictions and ample space
- ▶ 50% of lease areas are within a day's steaming distance
- ▶ Will create up to 1,500 manufacturing and operations jobs



# The port is being developed in two phases...



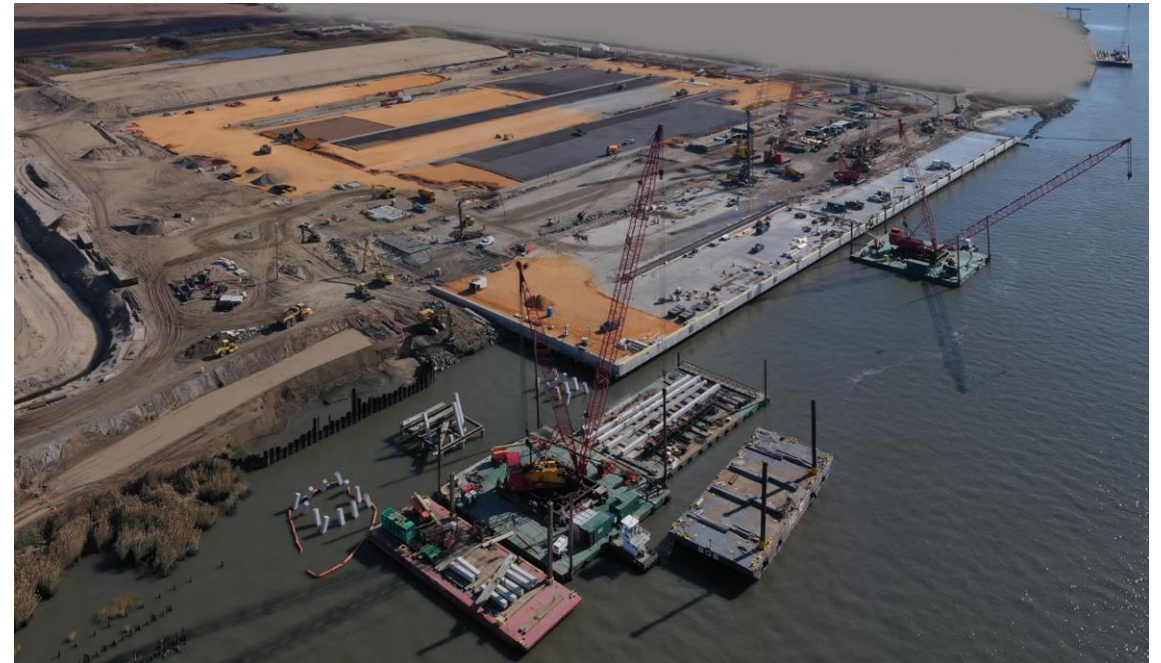


**March 2023**





**November 2023**



# New Jersey Wind Port Construction Commitments

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- ▶ New Jersey Wind Port project setting new standard for minority, veteran, and women-owned business inclusion
  - Diversity set-aside goal in CM agreement:  
**15% of contract value for MWVBE, 25% SBE, and 3% DVBE**
  - Advisory Committee to help fortify commitment to inclusion
- ▶ AECOM-Tishman signed **a PLA with South Jersey Building and Construction Trades Council**
  - Non-union businesses will need to sign letter of assent to participate
- ▶ **Affirmative action goals for workers in construction**
  - 18% minority workers
  - 7% female workers



# Wind Institute for Innovation and Training

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ACCELERATE DEVELOPMENT OF A  
ROBUST AND DIVERSE OFFSHORE  
WIND WORKFORCE



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CHAMPION RESEARCH AND  
INNOVATION THAT UNLOCKS  
MARKET POTENTIAL

- ▶ Galvanizing cross-stakeholder efforts to foster offshore wind workforce, education, research and innovation efforts



# Wind Institute for Innovation and Training

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## Sample Programs Underway

- ▶ [KidWind](#) K-12 offshore wind curriculum, teacher training [ReCharge Academy 2023](#) in Atlantic City
- ▶ Work with EEW to expand [welding and painting training programs](#) at vo-tech schools in south Jersey (Gloucester, Salem, and Camden counties)
- ▶ Rowan College of South Jersey [wind turbine tech training programs](#) under development in collaboration with industry partners
- ▶ Atlantic Cape Community College [GWO Basic Safety & Sea Survival facility](#) in progress
- ▶ [Offshore Wind Workforce and Skills Development Grant Challenge](#) provides grants to training programs on high need occupations with a focus on Overburdened Communities

## Sample Programs Underway

- Annual [Wind Institute Research Symposium](#) to highlight offshore wind research priorities and activities
- [Wind Institute Fellowship Program](#) to support undergraduate and graduate student research and exposure to offshore wind
  - 2023-24 cohort includes 40 Fellows from 8 universities:  
Rutgers, Rowan, NJIT, Montclair State, Stockton, Princeton, Stevens, and Seton Hall





# Wind Institute for Innovation and Training

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## Sample Programs Underway

- Development of Wind Innovation Center that combines offices, convening spaces, labs, and testing facilities in core offshore wind research areas, including:
  - climate-smart modeling
  - environmental impact assessment technologies
  - future transmission technologies and electrical infrastructure
  - power-to-X and storages solutions
  - enabling component design and production



# Offshore Wind Tax Credit Program

Up to **\$350M tax credit program** that provides reimbursement for capital investments in offshore wind industry-specific facilities located in New Jersey



Corporate business tax credit **typically covers 40-60% of a capital investment** in a qualified wind energy facility



Receive **credit per year over a five-year period**

Tax credits can be sold



Must employ at least **150 new, full-time** employees within New Jersey



Minimum investment of **\$50 million**

Tenant investment of at least **\$17.5 million**



Learn more at: <https://www.njeda.com/offshorewindtaxcredit/>

Contact us at: [offshorewindtaxcredit@njeda.com](mailto:offshorewindtaxcredit@njeda.com)



# Offshore Wind Supply Chain Registry

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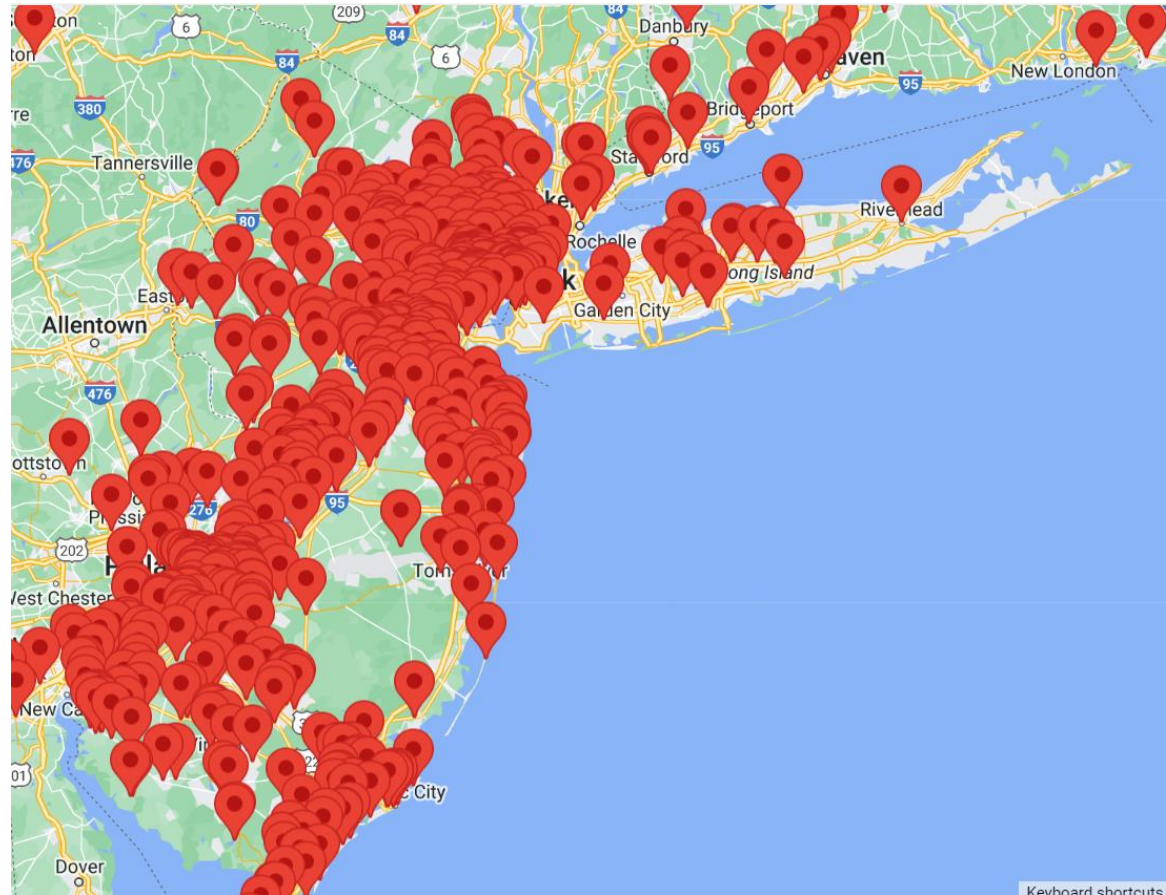
The **Offshore Wind Supply Chain Registry** is a **free**, searchable registry that allows companies to publicly indicate their interest and ability to supply components and services for offshore wind projects and receive special invitations to offshore wind events and resources

- ▶ More than **800 businesses** have joined New Jersey's registry to date
- ▶ Serves as a resource for companies looking to buy from and partner with NJ-based firms
- ▶ Connects to the Oceantic (formerly Business Network for Offshore Wind) national supply chain registry

Register to find New Jersey companies at: <https://www.njeda.com/offshorewind/>



# Offshore Wind Supply Chain Registry



Register to find New Jersey companies at: <https://www.njeda.com/offshorewind/>

# Agenda

- ▶ New Jersey's offshore wind commitment
- ▶ Our strengths - Wind Port, Wind Institute, business readiness programs
- ▶ De-risking, supporting and helping your business in New Jersey





# Loan program office

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- U.S. Department of Energy determined that **NJEDA is an eligible State Energy Financing Institution**
- Enables NJEDA to unlock low-cost capital available through LPO's Title 17 Clean Energy Financing Program.
- The LPO provides **direct loan financing** and **loan guarantees for up to 80 percent of eligible project costs** for projects aligning with federal energy priorities
- Examples of qualifying project participation by a SEFI may include:
  - Providing equity/subordinate portion of capital stack
  - Providing loan loss reserve with respect to junior portion of capital stack
  - Co-lending with LPO
  - Providing financial backstop for specific key project elements that may be subject to regulatory or local market risk
- More information coming soon



# Small business bonding readiness assistance program

Designed to help small business in all sectors, providing comprehensive technical assistance, supportive services and access to capital.

## Partners with:



## Benefits

Capacity Building Solutions for Small, Minority, Woman, Veteran -Owned businesses in the areas of:

- Bonding & Insurance
- Capacity Building Programs
- Community Outreach
- Back Office Services
- Capital Management,
- Construction Management
- Compliance & Monitoring

## Classroom Training

Cohort-based series of classes, workshops, and strategic counseling sessions covering topics including:

- Finance
- Estimating and working with construction documents
- Operations
- Contract law and avoiding construction fraud
- QuickBooks Training
- Optimizing your bond line
- Consulting Services
- and more

\*Please visit [www.njeda.gov/njbonding/](http://www.njeda.gov/njbonding/) for more information.



# Direct loans

New Jersey businesses in need of financing and committed to job creation/retention may be eligible for direct loans through the NJEDA when conventional financing is not available.

**Dollar Amount**

Up to

**\$2 million**

## Eligibility

- Commit to creation or retention of one new, full-time job for every \$65,000 of NJEDA exposure within two years.
- 1.1X Debt Service Coverage Ratio (for businesses); 1.0X Debt Service Coverage Ratio (for not-for-profits).
- Must be able to provide fixed assets (e.g. real property and machinery/equipment)
- Homebased businesses are ineligible

## Benefits

- Flexible interest rates
- Longer terms
- Up to \$2 million for fixed assets
- Up to \$750,000 for working capital

\*Please visit [www.njeda.gov/directloans/](http://www.njeda.gov/directloans/) for more information.



# NJ Manufacturing Voucher Program

Assists manufacturers with accessing equipment needed to become more efficient, productive, and profitable by providing grants of 30% to 50% of the cost of eligible equipment up to \$250,000.

**Covers**

Up to  
**\$250,000**

## Eligibility

- Company must be in a targeted industry or equipment must meet advanced manufacturing definition.
- Equipment must be located and installed in NJ
- Equipment must be used in the manufacturing process
- Total aggregated project cost (purchase & installation) must be at least \$25,000
- New or used equipment is eligible

## Benefits

- Minimum award of \$7,500 and capped at \$250,000
- Stackable bonuses available for companies located within an Opportunity Zone Eligible Census Tract, for Certified Woman, Minority, and Veteran Owned Businesses, and for the purchase of equipment manufactured and/or assembled in NJ
- Company is allowed 12 months for the delivery and installation of the equipment with two 6-month extensions before the funds are disbursed

\*Please visit [www.njeda.gov/njmvp/](http://www.njeda.gov/njmvp/) for additional eligibility criteria and more information



# CSIT Clean Tech Seed Program

Helps NJ-based early-stage clean tech/clean energy companies accelerate development and innovation of clean technologies to transform new discoveries from research stage into commercially viable technologies, leading to industry and investor interest.

## GRANTS

Up to  
**\$75,000**

## Eligibility

- Company must be developing/testing clean technologies intended to avoid emissions of, or recapture, greenhouse gases and/or criteria pollutants
- Minimum technology development level of Technology Readiness Level (TRL) 2 (applied research) to TRL 7 (Full-scale, similar (prototypical) system demonstrated in relevant environment)
- No more than 50 full-time equivalent
- Have a minimum of one full-time worker
- 50% or more of the cumulative hours worked by all workers, founders, and contractors in New Jersey
- Have less than or equal to \$5,000,000 in prior calendar year sales revenue (excluding grant revenue)

## DUE:

**January 18  
at 5pm**

\*Please visit [www.njeda.gov/csit](http://www.njeda.gov/csit) for additional eligibility criteria and more information

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Please visit [www.njeda.gov/financing-and-incentives/](http://www.njeda.gov/financing-and-incentives/)  
for a complete list of programs to assist your business

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# Upcoming Trainings and Events

- **Jan. 12:** NJ Academic Alliance for Offshore Wind Energy Symposium, Rutgers University
- **Jan. 18:** Offshore Wind Ready Manufacturing, Virtual
- **Feb. 8:** Offshore Wind Ready, Virtual
- **March 4-6:** Foundation to Blade, North Brunswick, NJ
- **April 11:** Offshore Wind Ready Manufacturing, Mullica Hill, NJ
- **April 12:** 2<sup>nd</sup> Annual Wind Institute Fellowship Research Symposium, Kean University
- **April 22-25:** 2024 International Partnering Forum, New Orleans, LA
- **May 21:** Offshore Wind Ready, in-person, location TBD
- **June 27:** Offshore Wind Ready Manufacturing, Virtual
- **Sept. 12:** Offshore Wind Ready, in-person, location TBD
- **Oct. 28-30:** ACP Offshore Wind Power Conference, Atlantic City, NJ
- **Oct. 28-Nov. 2:** NWEA/WindTech Conference 2024, New Brunswick, NJ



## Offshore Wind Team



**Jen Becker**  
Vice President



**Cecile Coronato**  
Sr. Project Officer



**David Ramsay**  
Manager, Sector Dev.



**Cathy Yuhas**  
Sr. Program Officer



**Lloyd Lomelino**  
Project Officer



**Dan Fatton**  
Director



**Siddhartha Katoley**  
Senior Advisor



**Analisa Groble**  
Program Associate



**Aina Yadav**  
Project Officer





# NJEDA Offshore Wind Communications

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- Visit our website  
[Offshore Wind - NJEDA](#)
- General questions  
[offshorewind@njeda.gov](mailto:offshorewind@njeda.gov)
- Get in touch directly  
[dan.fatton@njeda.gov](mailto:dan.fatton@njeda.gov)



NJEDA Quarterly Offshore Wind  
Newsletter Sign-up Form

# The Macro-Economic Condition – Regional and Global Overview of an Industry Correcting Itself



# Offshore Wind in 2023: The Pains and the Progress

New York | New Jersey Offshore Wind Supplier Forum

Chelsea Jean-Michel

January 11, 2024

# 8 Projects – 8.6 GW of Active Offshore Wind Projects: Meet the Developer



# Atlantic Shores



# Atlantic Shores Offshore Wind

# Atlantic Shores – Values and Vision

## Our Values



- **BE SAFE:** Healthy, safe and reliable approach to Project development and delivery, targeting Goal Zero and putting health and safety at the forefront of all our activities
- **BE A GOOD NEIGHBOR:** Collaboration, coordination and respect for our neighbors, stakeholders – in particular, other ocean users, and team members
- **BE A GOOD STEWARD OF OUR ENVIRONMENT:** Long term and balanced approach to a shared use of our ocean, seeking to understand and mitigate any potential affects our Project may have on the environment, wildlife and industries that fuel our local economies
- **LEAD WITH SCIENCE:** Scientific, rational approach to Project design, leveraging on-site surveys, expert studies and assessments led by reputable third parties

***Our vision is to be the offshore wind developer of choice by delivering on our promises***

# 50/50 JOINT VENTURE

## EDF Renewables

- Over **30** years' experience developing renewable energy assets in the US
- Actively developing and operating offshore wind projects in **France, Belgium, UK & Germany**
- Operating and developing solar and wind projects in **New Jersey** and **New York**

## Shell New Energies

- **40+** years of oil and gas operations in the US offshore
- **15+** years in wind industry
- Actively developing and operating offshore wind projects in the **Netherlands** and **United States**



# Atlantic Shores is developing the largest clean energy project in the State of New Jersey to support the State's energy goals.



In June 2021, an Offshore Renewable Energy Credit (OREC) was awarded to Atlantic Shores to supply NJ with  $\pm 1,510$  MW of offshore renewable wind energy in accordance with Governor Murphy's Clean Energy Act of 2018.



# Atlantic Shores Project 1 Overview and Benefits

- **1,510 MW** offshore wind project will generate enough energy to power over **700,000** households each year or ~20% of all NJ households.
- Located approximately **10-20 miles off the coast of NJ** in BOEM Lease Area



- \$160 million investment in Atlantic City's economy including:

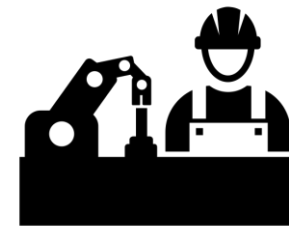
**Contributions to local community organizations**



**Planned Electric Vehicle (EV) infrastructure in AC**



**Operations & Maintenance (O&M) facility located in Atlantic City providing ~90 permanent jobs**



**Education and Community Outreach (ECO) Center on the Boardwalk at Stockton University**



# Project 1 Commitments

## Atlantic Shores Project 1 main economic impacts:

- Direct in-state expenditure commitment of **\$848 million USD**
  - Guaranteed shortfall mechanism in place
  - O&M center in New Jersey to provide at least 88 long-term jobs (annual FTE)
  - Guaranteed shortfall mechanism in place
- Make use of the NJWP for Marshalling and other NJ ports for other activities
- Build and train the NJ Workforce, including MWBE focus and union labor



**\$848  
million In-  
State spend**



**88 long-  
term O&M  
jobs**



**\$15 million  
workforce  
funding**



**\$33 million  
innovation  
& research**

# Project 1 Timeline



Surveys & Engineering  
Federal & State  
Permitting  
Commercial agreements  
O&M planning and Site  
Development

2018 – 2023



Financing  
Start of manufacturing  
HDD at Landfall  
Coastal transmission  
construction  
(Offseason)

2024



Onshore transmission  
construction  
Offshore substation  
construction  
Export cable

2025



Wind turbine and  
offshore substation  
foundations  
Inter-array cables  
Substations ready for  
interconnection

2026



Wind turbines  
installation and  
commissioning  
Phase 1 operational and  
delivering power 2027  
Phase 2 operational and  
delivering power 2028

2027-2028

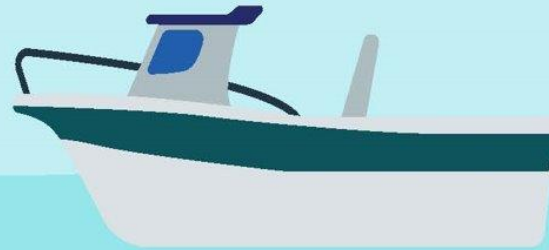
# Atlantic Shores - Studies & Surveys Conducted

Visual Impact Assessment  
Visual Resources Assessment  
Onshore Noise Report  
Historic Resources Visual Effects Assessment  
Historic Resources Visual Effects Analysis

Air Emissions Calculation Methodology  
Aircraft Detection Lighting System (ADLS) Analysis  
Obstruction Evaluation & Airspace Analysis  
Aerial Search and Rescue Risk Assessment  
Air Traffic Flow Analysis  
Navigational and Radar Screening Study

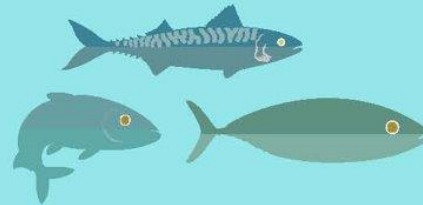
Metocean Analysis Report  
Metocean Design Basis

Avian Assessment Report  
Avian Survey Plan  
Avian Digital Aerial Survey Report  
Bat Monitoring Report  
Red Knot Satellite Targeting Study



Hydroacoustic Modeling Report  
Marine Mammal & Sea Turtle Monitoring Plan

Navigation Safety Risk Assessment  
Fisheries Communication Plan  
Fisheries Monitoring Plan



Geophysical and Geohazard Report  
Munitions and Explosives of Concern Hazard and Risk Assessment  
Marine Archaeological Resources Sensitivity Assessment  
High Resolution Geophysical and Geotechnical Site Investigation Report  
Marine Archaeology Resource Assessment

Wetland and Stream Delineation  
Habitat Suitability Assessment  
Phase 1 archaeological Surveys

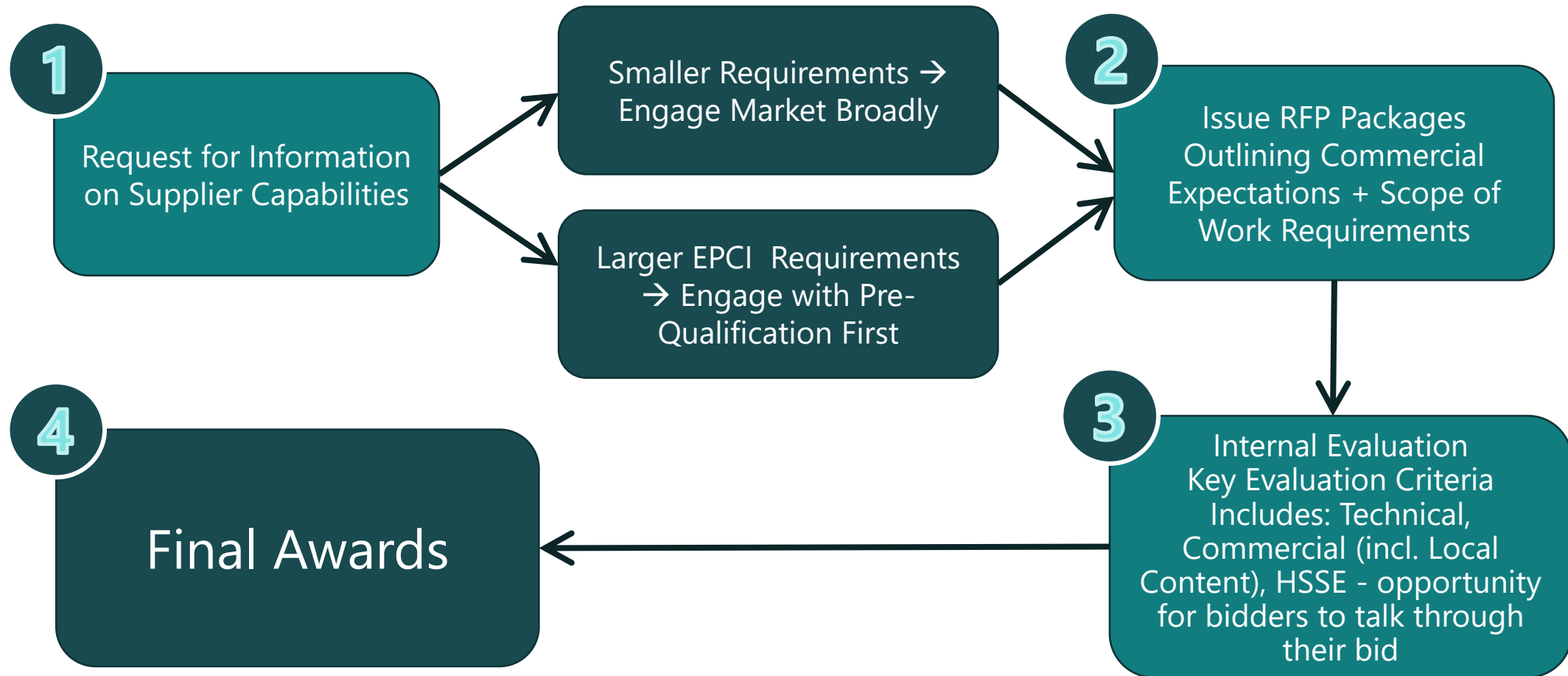


Benthic Monitoring Plan  
Benthic Assessment Report  
Essential Fish Habitat Assessment  
Benthic Habitat Mapping  
Sediment Dispersion Modeling Report

EMF Report  
Cable Burial Risk Assessment

# ASOW Procurement Overview

**ENGAGING THE MARKET EARLY TO ENCOURAGE DISCUSSION PRIOR TO RFP ISSUANCE  
AND TO EXPLORE OPPORTUNITIES TO GROW TOGETHER**



# Supplier Information for Atlantic Shores

## **Capability Statement, with offshore wind focus**

- Distinct for each purpose
- Company contact info; locations
- Key offering for offshore wind
- Services, equipment, facility, labor/talent
- Previous project/customer examples
- I.D. customer needs and make relevant to OSW
- Certifications/credentials if relevant to scope
  - (PE, high voltage capability, ship licenses, coast guard permits, etc.)
- NAICS Codes not applicable to OSW (yet)
- Short (1-3 pages)

# ASOW Procurement Overview

## For services contracts including:

- Engineering
- Consulting
- Studies (T&I), Surveys, Audits
- CVA
- IT
- O&M

Atlantic Shores will be the direct contractor but will consult database to identify potential suppliers.

## For Main EPC(I) contracts:

- E.g, WTG, OSS, IAC, Foundation (MP, TP, GBS, Jacket), Export cable, OnSS etc.

Please contact directly the main EPC(I) contractor in case you are a sub-contractor for a full scope.

Please register at:

**[atlanticshoreswind.com/supply-chain](https://atlanticshoreswind.com/supply-chain)**





## Examples of Engineering Studies:

- Conceptual design for foundation
- Conceptual design for electrical
- FEED study
- Constructability study
- Interco study

## Examples of Development Studies:

- Port study
- BID study
- Environmental survey
- Surveying
- Real Estate support
- Interconnection analysis

*Reach the Atlantic Shores Procurement Team at*  
**Procurement@atlanticshoreswind.com**

# Rutgers WindIgnite

- Rutgers WindIgnite is an accelerator program that provides support to underrepresented small businesses and start-ups in the OSW energy supply chain.
  - Emphasis on women and minority-owned enterprises.
- **Goal: innovation justice for all**
  - Closing the gap for underrepresented innovators and contribute to the development of a supply chain
- WindIgnite assists companies successfully maneuver the innovation pathway.





# Thank You

Questions?

**ATLANTIC SHORES**  
offshore wind



[www.atlanticshoreswind.com](http://www.atlanticshoreswind.com)



[info@AtlanticShoresWind.com](mailto:info@AtlanticShoresWind.com)



[@atlshoreswind](https://twitter.com/atlshoreswind)



[/atlantic-shores-wind](https://www.linkedin.com/company/atlantic-shores-wind)

# Attentive Energy One



# Attentive Energy One

*An Offshore Wind Project to Power New York*



# AE1 Sponsors: TotalEnergies + Rise + Corio



**TotalEnergies Renewables USA** is one of the leading renewable energy developers in the U.S., with more than 4 GW of offshore wind in development. As part of its ambition to get to net zero by 2050 and drive the global energy transition, TotalEnergies plans to develop over 100 GW of renewable energy by 2030.



**Rise Light & Power** is a Queens, New York based energy asset manager and developer, and is actively transforming NYC's largest power plant - Long Island City's Ravenswood Generation Station - into a new clean energy hub. Rise Light & Power is a wholly owned affiliate of LS Power.



**Corio Generation** is a specialist global offshore wind developer and a portfolio company of Macquarie Asset Management operating on a standalone basis. Corio has one of the world's largest offshore wind project pipelines, with over 30 GW at various stages of development across Europe, Asia-Pacific and the Americas.



# AE1 project overview

- › **Lease area:** OCS-A 0538
- › **Project size(s):** 1,404 MW nameplate capacity
- › **Water depth:** 127 – 187 feet (average 147 feet)
- › **Onshore landing location:** Ravenswood Generating Station
- › **Point of interconnection:** Ravenswood
- › **Distance to NY shore:** At least ~50 miles south of Jones Beach



*Illustrative project design*



# Fossil retirement + replacement at Ravenswood

## A historic first-step in the transformation of NYC's largest power plant



New HVDC  
Converter Station,  
Offshore Wind  
Operations Center,  
Training Center

Rehabilitate Quayside  
for SOV Marshalling



# AE1 project timeline

Major milestones including permitting & siting, manufacturing, construction, and operation



# AE1 supply chain engagement and partnerships

A \$300 million commitment to New York State, over \$72 million to localize and diversify supply chain and prepare NY workforce

Attentive Energy One has committed

## \$4.5 million

to provide compliance support for MWBEs/SDVOBs, identify and address challenges small, diverse business face in pursuing contracting opportunities, and aid in prequalification pathways  
New York State Diverse Supplier Support Programs



**SUPPLIER DIVERSITY  
LOCAL EXCHANGE**

B2B/B2G LOCAL CONTENT MARKETPLACE

Attentive Energy One has committed

## \$15 million

to conduct grassroots outreach and provide small, diverse business grant funding across New York State with the  
New York State Supply Chain Development Partnership (the SCDP)

A collaborative, cross-state initiative between:



Institute for Workforce Advancement

Long Island-based Institute for  
Workforce Advancement  
(IWA)



Albany-based Center for  
Economic Growth (CEG)



NYC Economic Development  
Corporation (NYCEDC)



# Supply chain needs

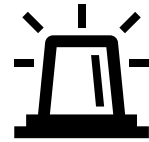
Goods, services, and workforce opportunities associated with the development, manufacturing, installation, and commissioning of all systems of the wind farm in both the onshore and offshore environment



**IT and Security**



**Steel Fabrication**



**Industrial Lighting**



**Fire Suppression**



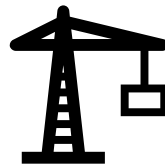
**Corrosion Protection**



**Personal Protective Equipment**



**Safety Signage**



**Construction Equipment and Tools**



**Raw Materials**



**Fuel, Oil, and Lubricants**

\* These are only a few examples. The supply chain is too large to list them all!



# Connect with Attentive Energy One



Attentive Energy



@ThisIsAttentive



[attentiveenergy.com](https://attentiveenergy.com)



[info@attentiveenergy.com](mailto:info@attentiveenergy.com)



# Community Offshore Wind



# NY NJ Offshore Wind Supplier Forum

January 11, 2024

# Meet



**February 2022:** Community Offshore Wind acquired Lease Area OCS-A 0539, the largest lease area in the New York Bight.



**October 2023:** Awarded a provisional offtake contract to develop 1.3 GW of new offshore wind capacity – enough to power more than 500,000 New York homes.



**Our joint venture brings together two global leaders in renewable energy and transmission:**

## RWE

- #2 offshore wind company globally
- 19 offshore wind projects successfully completed globally
- 6 GW of offshore wind project in development in the US
- 8 GW of onshore wind, solar, and storage in the US
- New zero goal by 2040

## nationalgrid ventures

- Serving 20 million people throughout NY and MA
- More than 5,000 employees in New York
- Growing portfolio of onshore wind, solar, battery storage and transmission modernization projects in the US
- National Grid and its legacy companies have operated in NY for over 125 years

# Community Offshore Wind | Our Project



## Delivering for New York



1.3 GW of Renewable Energy



\$3.3 Billion in Economic Benefits



Powering 500,000+ New York Homes



800+ New, Good-Paying Jobs



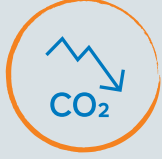
Connecting to the Con Edison Clean Energy Hub in Brooklyn



\$500M+ Spending Commitment for Disadvantaged Communities



\$10M Investment in Childcare for Offshore Wind Workers and Trainees



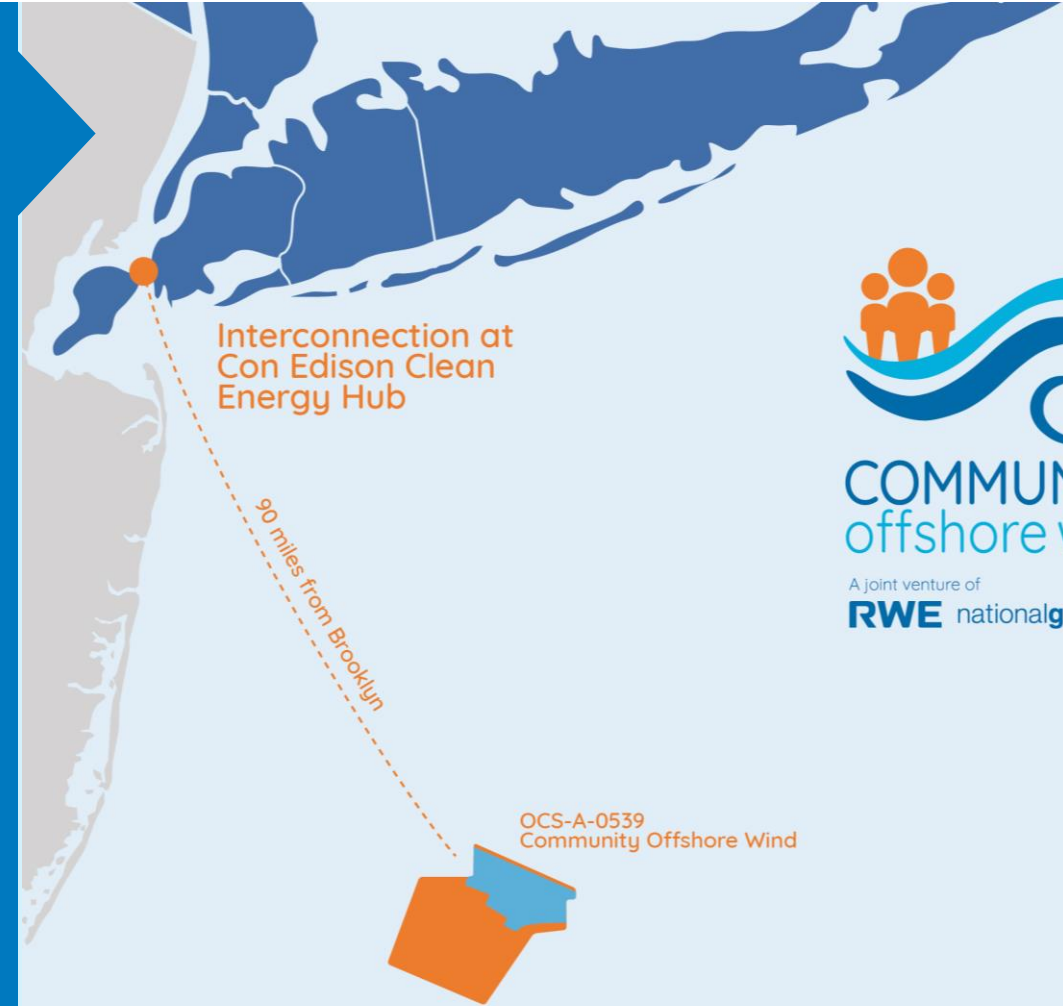
5% Emissions Reduction for New York State Power Sector



Distance to New York: 64 miles



\$41M for Workforce Development



COMMUNITY offshore wind

A joint venture of RWE nationalgrid

Lease Size: 125,964 acres/197 sq. mi.





## Community Offshore Wind | Programs and Partners

- **Citizens Campaign of the Environment with our program with Uniondale School District** - 1,100 students impacted with climate change education
- **Operation SPLASH** – 200 Uniondale students impacted with marine life education and field trips
- **Island Park School District** – School supply kits and Kid Wind professional development and wind turbines donated for students
- **Red Hook Initiative, Joseph Miccio Community Center, Patrick Daly Magnet School, PS 146 - Brooklyn New School** – Winter coats donated
- **Opportunities for a Better Tomorrow** – Professional clothing donated for interviews



### Where We Will Engage

- **\$10M** for reduced-cost childcare for all offshore wind trainees and workers in New York State
- **\$11M** for YMCA Swimming Program for Disadvantaged Communities
- **\$1.5M** for SUNY Orange to offer manufacturing skills training programs



# Community Offshore Wind | Project Timeline

## Planning Phase (2022-2026)

Assessing environmental factors, site design, engineering, permitting and procurement contracts.

## Operation (2030-2063)

Offshore wind turbines will operate for over 20+ years. This phase involves regular maintenance to ensure they function at their best.

## Construction (2027-2030)

Building the offshore wind farm including installing and commissioning the wind turbines, while supporting transmission infrastructure and connecting to the grid.

## End of Lease Term (2063-2064)

In year 33 of the project, we will explore extending the lease or decommissioning the wind farm, reusing and recycling materials where possible.



# Community Offshore Wind | Current Suppliers Engaged in Project



EEW AMERICAN OFFSHORE STRUCTURES



\*In addition, we have been engaged with various Tier 2 suppliers along with various ports both in NY and NJ, including the Windport of New Jersey



# We want to hear from you!

In our drive to build an affordable renewable energy solution, we are committed to building community-supported and environmentally-valued supply chains with our suppliers as the foundation of success.

[www.communityoffshorewind.com](http://www.communityoffshorewind.com)

[info@communityoffshorewind.com](mailto:info@communityoffshorewind.com)



Want to keep up with the latest news about Community Offshore Wind and our projects? Visit [Community OffshoreWind.com](http://CommunityOffshoreWind.com), or scan the QR code to visit the site and sign up for our monthly newsletter!

# Empire Wind

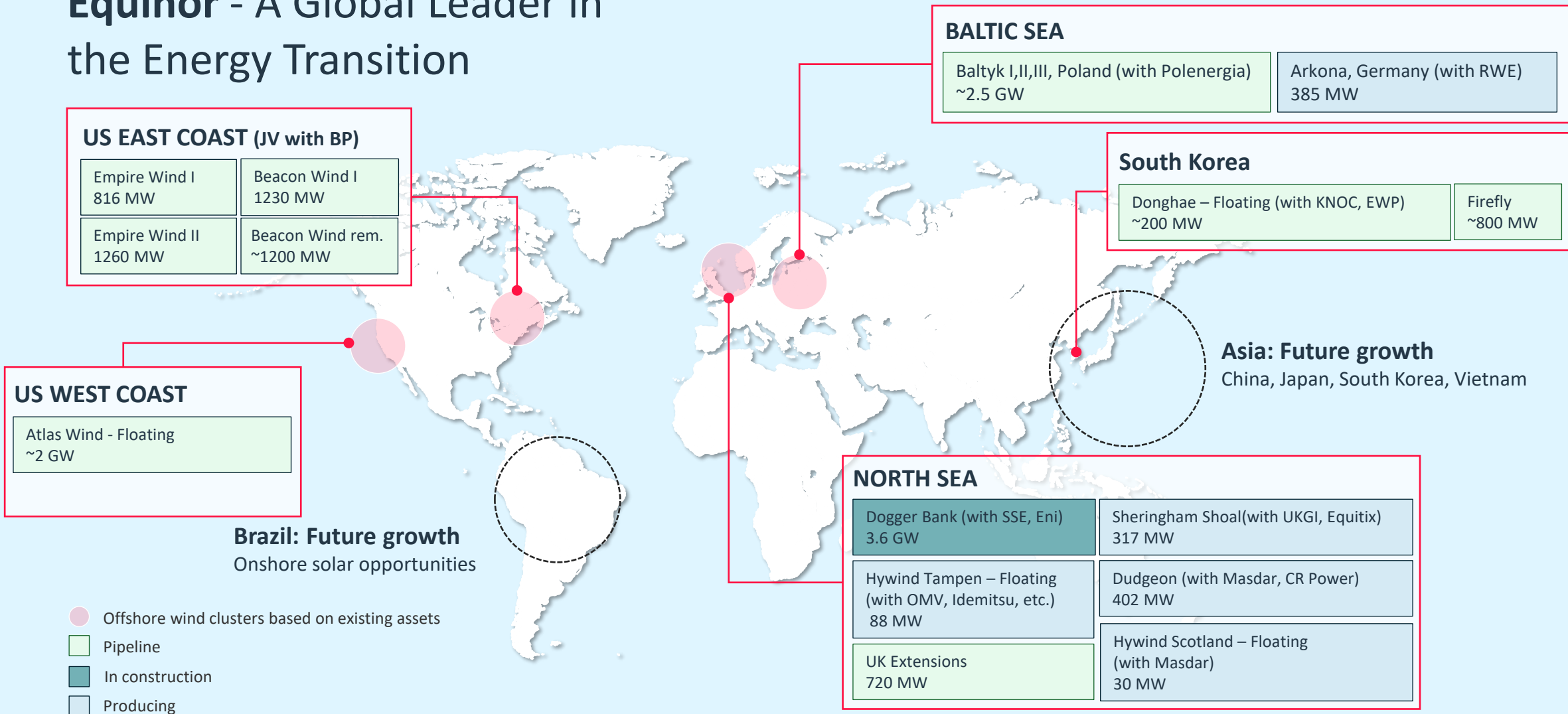




# Equinor in the US

December 12, 2023

# Equinor - A Global Leader in the Energy Transition





## Empire Wind

Approx. 2,000 MW capacity  
 12 nm south of Long Island, NY  
 16 nm east of Long Branch, NJ  
 EW1 has a planned interconnection at the South Brooklyn Marine Terminal (SBMT)

## Beacon Wind

Approx. 2,400 MW capacity  
 20 nm southwest of Nantucket, MA  
 60 nm east of Montauk Point, NY  
 BW1 has a planned interconnection in Astoria



# South Brooklyn Marine Terminal (SBMT)

- Staging facility, long-term O&M hub for Empire Wind and Beacon Wind
- Assembly opportunities for broader New York OSW industry
- One of largest dedicated OSW port facilities in US (73 acres)
- **Jobs\***: 1,000 short-term jobs, 200 long-term jobs



*Job estimates are approximate.*



# offshore wind innovation hub

In June, Equinor and its partners announced the first round of startup companies selected to help unleash the potential of offshore wind.

The six winners were chosen from a cohort of eleven finalists that participated in a live “Shark Tank” style pitch competition. These winners have begun a six-month mentoring and business development program. They include:

- **Benchmark Labs Inc.** – Turbine-specific weather forecasts to improve operational margins
- **Flucto** – Using sensor, GPS, and camera data for offshore wind installations and increased precision
- **Heerema Engineering Solutions** – Software tool to simulate the complete offshore construction process
- **OSC AS** – Industrial metaverse simulation for derisking and cost-cutting offshore wind farm planning
- **RCAMM Technologies** – Low-cost, 3D printed, environmentally friendly concrete anchors for floating offshore wind
- **VINCI VR** – Virtual reality for workforce safety and training





## Offshore Wind Ecosystem Fund

Equinor and bp, together with NYCEDC, have awarded eight New York area organizations a total of **\$5 million** in grants to support sustainable growth, workforce development, empowerment of underserved communities, and climate justice. Awardees include:

- City Growers at Brooklyn Grange Farm
- Educational and Cultural Trust Fund of the Electrical Industry
- Jewish Community Center of Staten Island
- New York Academy of Sciences
- New York City District Council of Carpenters Apprenticeship Journeyman Retraining Educational & Industry Fund
- Research Foundation of the City University of New York
- Southwest Brooklyn Industrial Development Corporation
- Uprose

# Empire Wind Project Timeline

The commercial lease for this federal offshore wind area was signed by Equinor in March 2017, following the Department of the Interior’s Bureau of Ocean Energy Management’s (BOEM) successful auction in December 2016. First power is expected to be delivered in the mid-2020s.



Empire Wind recently received Article VII approval from the PSC for state permits, and its Record of Decision from BOEM for its federal permits, with final approval expected this spring.

## Examples of Procurement Activity



As the project developer, Equinor is responsible for procuring a variety of goods and services, including but not limited to the following:

- Turbines
- Foundations
- Towers
- Export Cables
- Substations (onshore and offshore)
- Vessels\*
- Engineering & design services

\*Some vessels may be procured through our suppliers. Others are directly procured by Equinor



## Empire Wind Suppliers

- Developer builds its **competence base** in the region
- Purchase & Sales Agreements (PSA) commit to **local economic benefits** and **workforce development**
- Developer commitments are **embedded** in agreements with the Contractors
- Significant parts of the job creation will be sourced via the supply chain through **Contractors** and its **Subcontractors**



GREAT LAKES DREDGE  
& DOCK CORPORATION



MAERSK



JACOBS®

Prysmian  
Group



Nexans

SKANSKA

COWI



Vestas®



## Equinor in the US

Amanda Schoen, Director of Public Affairs – [amsch@equinor.com](mailto:amsch@equinor.com)

Sign up for our newsletter or learn about updates to our projects at [EmpireWind.com](http://EmpireWind.com) and [BeaconWind.com](http://BeaconWind.com)

# Excelsior Wind







# Excelsior Wind

New York | New Jersey Offshore Wind Supplier Forum  
January 11, 2024

[vineyardoffshore.com](http://vineyardoffshore.com)

# Who We Are



**Vineyard Offshore** is Copenhagen Infrastructure Partners' (CIP's) exclusive development partner in the US

CIP is a global leader in clean energy investments with \$26 billion in assets under management



**Vineyard Offshore** was launched in April 2022 by the development team behind Vineyard Wind 1

We lead the development of **3 lease areas** off the coasts of Massachusetts, New York, and California

Vineyard Offshore has more than **6 gigawatts of potential capacity** for development on the East and West Coasts

# Excelsior Wind

Bringing Offshore Wind to New York State



## Overview

- 1,314 megawatts (MW)
- Located 24 miles south of Fire Island & 31 miles south of Jones Beach
- Point of Interconnection: East Garden City in Uniondale
- Evaluating cable landfall options with a focus on community engagement



**700,000**  
HOMES POWERED



REDUCES CARBON DIOXIDE BY  
**1.1 MILLION**  
METRIC TONS



**= 225,000**  
CARS OFF THE ROAD

# Approach to Stakeholder Engagement



*Centering on EJ in New York:  
Commitment to deliver at least 35% of  
New York spend in DACs and prioritize  
hiring in host communities and DACs*

- Identify a **diverse** and **representative** set of stakeholders and opportunities for collaboration
- Communicate and engage **early, often, and transparently**
- Ensure project information is **accessible** and **well understood**
- Forge constructive stakeholder relationships built on **trust** and **transparency**
- Develop a **shared understanding** of opportunities to avoid, minimize, and mitigate impacts
- Deliver **tangible, direct, and sustained** economic benefits to host communities and DACs
- Hire from the **local communities** where our projects are located

# Commitments to Community



- **1,200+ jobs** over the lifetime of the project
- **\$4.5B investment** in New York, with almost \$1B in blade and nacelle manufacturing
- In conversations with several NYC area port facilities for marshalling and construction
- Funding commitments for New York Jobs and Workforce Plan, scholarship & wrap around services fund, and youth education
  - Partnerships with 40+ community-based groups, higher education institutions, k-12 curriculum groups, labor organizations, and more
- **\$45+ million** for workforce, fisheries, environmental, and community initiatives
  - Will look to sign a PLA and LPA in New York



# VINEYARD OFFSHORE



**Andrea Bonilla**  
External Affairs Manager



**Ali Alrayes**  
Commercial Manager



**Marlena Fitzpatrick**  
Workforce Development Manager



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Ports Lead

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[/Vineyard-Offshore](https://www.linkedin.com/company/Vineyard-Offshore)

# Sunrise Wind



NY/NJ SUPPLY FORUM

# Ørsted and Eversource: developing New York's first and second offshore wind farms







## Offshore Wind Pioneer

- 25+ years of experience building offshore wind farms
- Built the first offshore wind farm in the world
- Owns and operates America's first offshore wind farm - Block Island Wind Farm

## Proven Expertise

- 28 successful offshore wind farms, with over 1,500 turbines installed worldwide and the largest project portfolio in the country



## National Energy Leader with Northeast Roots

- 100+ year history of operation in Northeast New England's largest energy company
- Deep-rooted knowledge of the region's electrical system with unparalleled expertise in energy transmission

## Catalyst for Clean Energy Solutions

- Leading driver of northeast, clean energy economy supporting economic development across the region



New York

Massachusetts

Connecticut

Rhode  
Island

Ørsted &  
Eversource



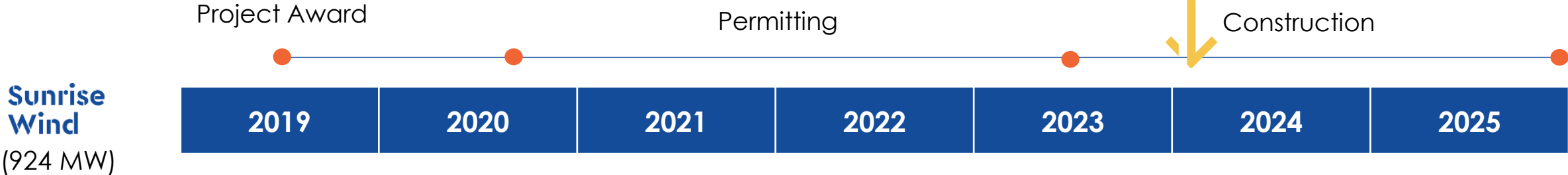
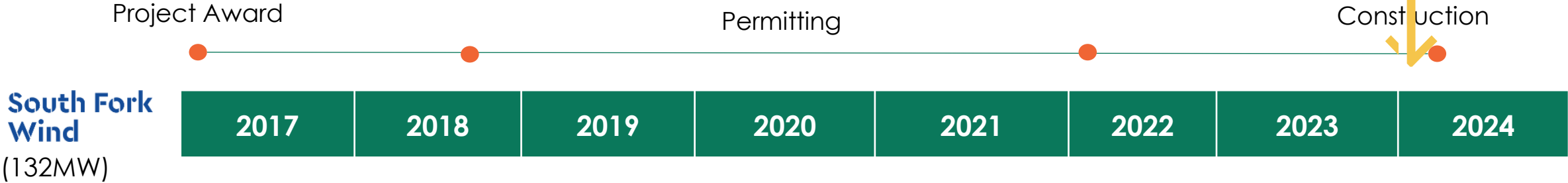
## South Fork Wind

- New York's first offshore wind farm
- Interconnection in East Hampton
- 132MW -- Power for 70,000 homes
- Turbines 35 miles east of Montauk
- Complete in early 2024; contract with LIPA

## Sunrise Wind

- 924 MW -- Power for 600,000 homes
- Interconnection in Holbrook
- Operational in 2025
- Turbines 30 miles east of Montauk
- Contract with NYSERDA

# Project Timelines



# South Fork Wind is under construction offshore right now!



## *Strategic Investments and Port Plans*

- ✓ State-of-the Art Operations & Maintenance Hub in East Setauket, NY
- ✓ Home port for 260-foot Service Operation Vessel in Port Jefferson, NY
- ✓ \$10M for National Offshore Wind Training Center in Brentwood, NY
- ✓ Construction/Assembly of Advanced Foundation Components at Port of Coeymans, NY
- ✓ Turbine Staging at New London State Pier, CT



A banner image featuring a close-up of a white wind turbine against a clear blue sky. The text 'Sunrise Wind Supply Forums' is overlaid in a large, white, sans-serif font. On the left side of the banner, there are several white diagonal lines of varying lengths, creating a stylized graphic element.

# Sunrise Wind Supply Forums

[Home](#) / [Resources & FAQs](#) /

## What is the Sunrise Wind Supplier Forum?

These forums were a chance for New York companies to meet awarded suppliers, and to learn about opportunities to become a supplier to the Sunrise Wind Project.

At the Supply Forums, representatives from Sunrise Wind and awarded tier-1 vendors provided descriptions of scopes of work, requirements and project schedules related to tendering and execution. New York businesses are encouraged to review the details for scopes to determine if they can contribute to the project.

Watch recaps from our Supply Forums:



Blue  
Ocean  
Energy Marine<sup>SM</sup>  
A DOMINION ENERGY COMPANY



NEW  
YORK  
STATE | Offshore  
Wind



HG HAUGLAND  
GROUP



RIGGS  
DISTLER  
A CENTURI COMPANY



Nexans  
ELECTRIFY THE FUTURE



SIEMENS Gamesa  
RENEWABLE ENERGY



**FOR MORE INFORMATION:**

Visit our website and download supply scope details at [www.sunrisewindny.com](http://www.sunrisewindny.com)

Please contact our Procurement Representatives:

Mark Kelly (MARKK@Orsted.com)

Priya Ganesh (PRGAN@Orsted.com)



Powered by  
Ørsted &  
Eversource

# Lunch





# Industry Starts – At land or Sea – US Business is Building



# Calling All Jones Act Vessel Owner Operators and Maritime Support Service Firms

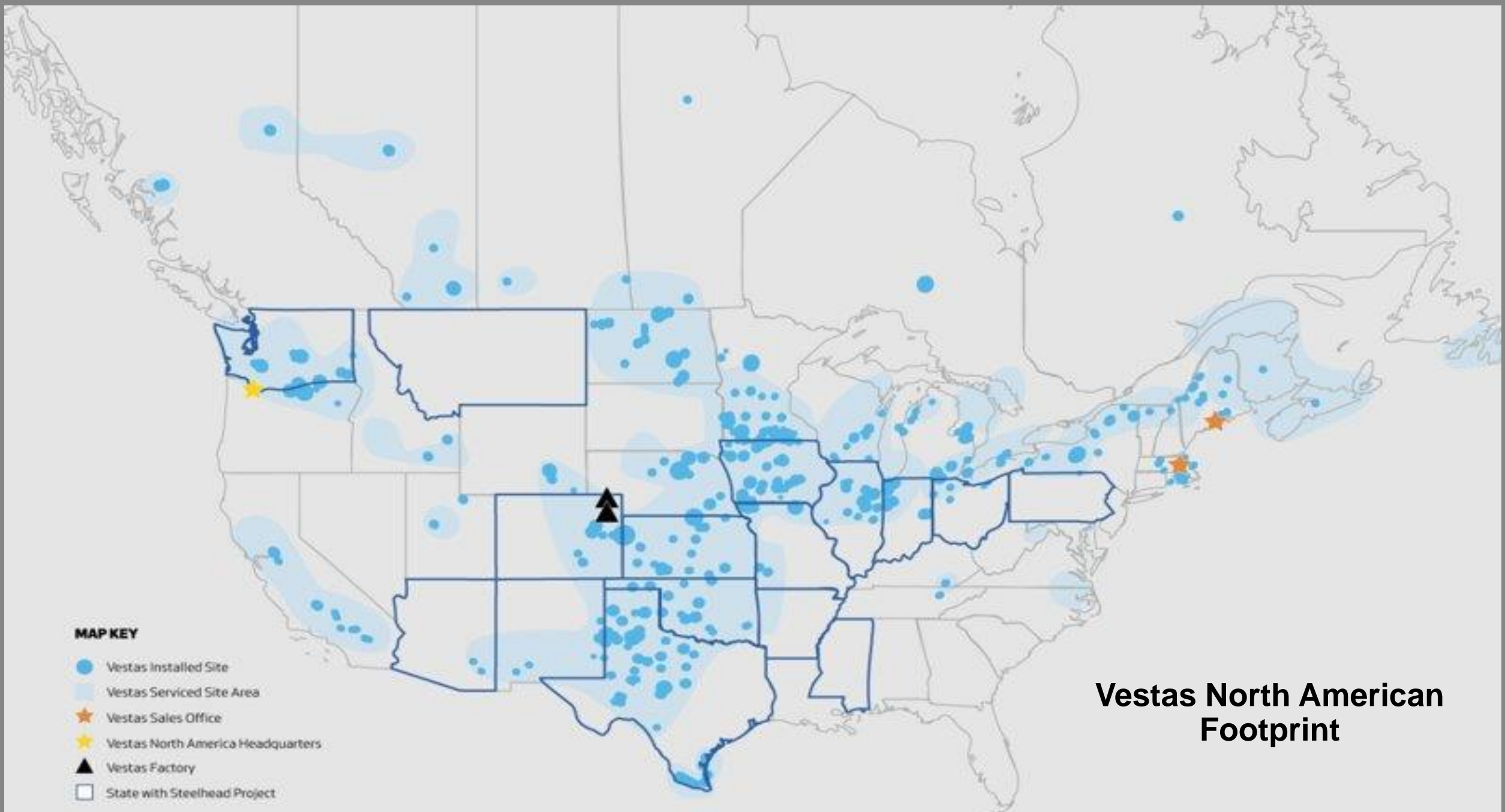


# Harnessing the Power – Animating the NJ Offshore Wind Port & South Brooklyn Marine Terminal for Wind Turbine Generator Staging & Marshalling





***Vestas***®



**MAP KEY**

- Vestas Installed Site
- Vestas Serviced Site Area
- ★ Vestas Sales Office
- ★ Vestas North America Headquarters
- ▲ Vestas Factory
- State with Steelhead Project

**Vestas North American Footprint**

# Vestas' portfolio of sustainable energy solutions

## Power solutions

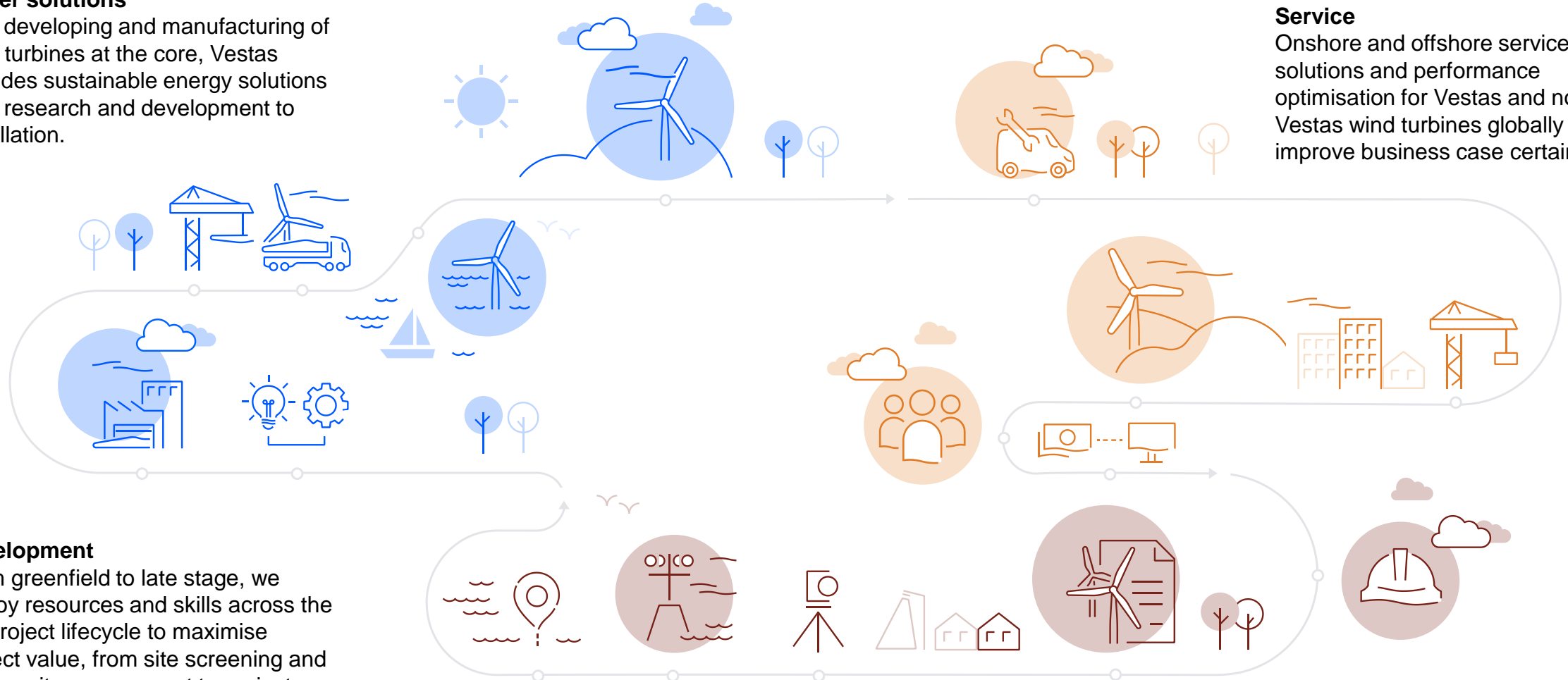
With developing and manufacturing of wind turbines at the core, Vestas provides sustainable energy solutions from research and development to installation.

## Service

Onshore and offshore service solutions and performance optimisation for Vestas and non-Vestas wind turbines globally to improve business case certainty

## Development

From greenfield to late stage, we deploy resources and skills across the full project lifecycle to maximise project value, from site screening and community engagement to project funding



# Vestas - The undisputed global leader in wind energy



~29,000

N. America 5,200

employees

Every day, our employees help create a better world by designing, manufacturing, installing, developing, and servicing wind energy and hybrid projects all over the world



+50,000

26,159

turbines under service

Our service technicians keep the world spinning by servicing a global portfolio of more than 147 GW - the largest fleet in the world



167 GW

45 GW

installed wind turbine capacity

We have installed more wind turbine capacity than any other company in the world, with installations in 89 countries



222m

112m

tonnes CO<sub>2</sub>e avoided annually

Our total aggregated installed fleet annually help the World avoid emissions of 222 million tonnes CO<sub>2</sub>e

# Wind turbine platforms for every segment

## Onshore



### 2MW Platform

57+ GW  
Installed since 2000

**Turbines**  
V90-2.0 MW®  
V100-2.0 MW®  
V110-2.0 MW®  
V120-2.2 MW®



### 4MW Platform

65+ GW  
Installed since 2010

**Turbines**  
V112-3.45 MW®      V136-4.2 MW™  
V117-3.45 MW®      V150-4.2 MW™  
V126-3.45 MW®      V136-4.5 MW™  
V105-3.45 MW™      V150-4.5 MW™  
V117-4.2 MW™      V155-3.6 MW™  
V136-4.45 MW®      V163-4.5 MW™



### EnVentus™ Platform

9+ GW  
Firm order intake

**Turbines**  
V150-6.0 MW™  
V162-7.2 MW™  
V162-6.8 MW™  
V172-7.2 MW™

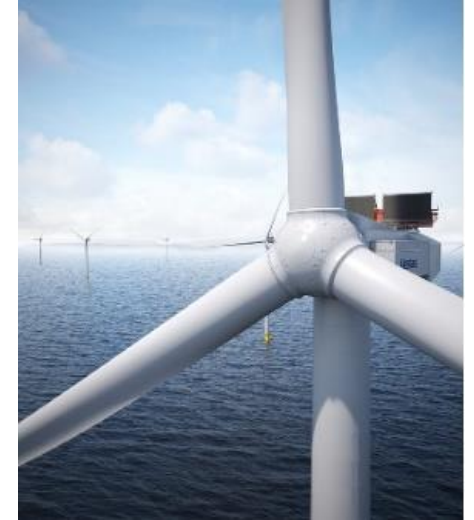
## Offshore



### 9MW Platform

6+ GW  
Installed since 2014

**Turbines**  
V164- 9.5 MW™  
V164- 10.0 MW™  
V174- 9.5 MW™



### V236-15.0MW

12+ GW  
PSAs

**Turbines**  
V236-15.0 MW™















*Vestas*

DANMARK

MAN

SERTRANSPORT

V50 22101 B  
K50

V50 22101 B  
K50







# SME Next Steps



# Improving the Odds for Success in Offshore Wind

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NYSERDA & NJEDA Offshore Wind Supplier Days

Kristian Ravn, Co-Founder Executive Advisor  
10 January 2024



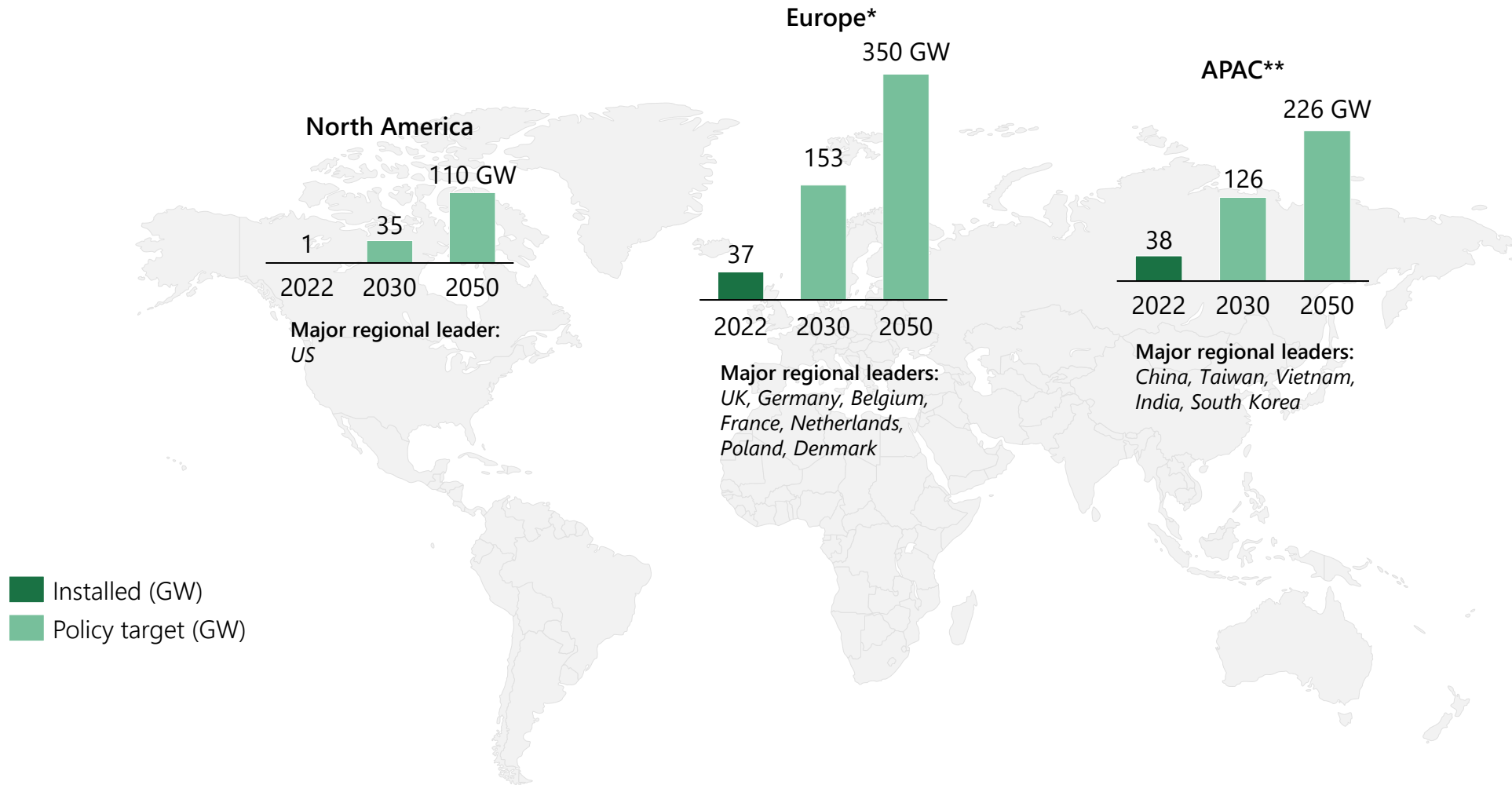


We advise executive managements and  
operate in the cross-field between

technical expertise,  
commercial considerations  
market insights &  
stakeholder management

# Regional offshore wind capacity targets remain sky high.....

*US has highest relative growth rate ambitions from a political perspective*

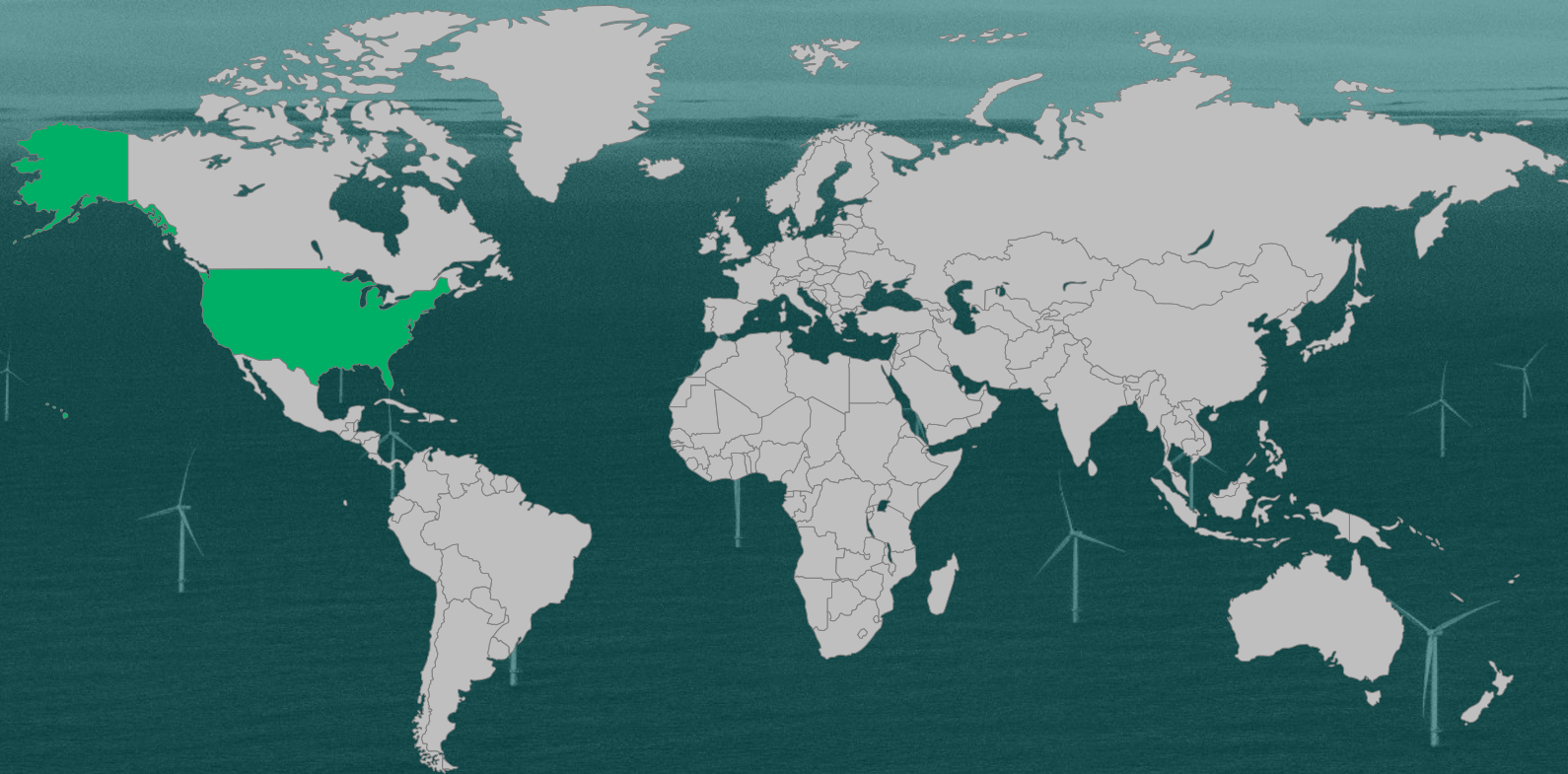


Source: Individual country policy targets - research by Green Ducklings

\*2050 goals for Europe come from the EU ambition + UK targets

\*\*China's current five-year plan targets 54.85GW by 2025. Due to the nature of Chinese five-year plans, there is limited visibility for long-term ambitions.

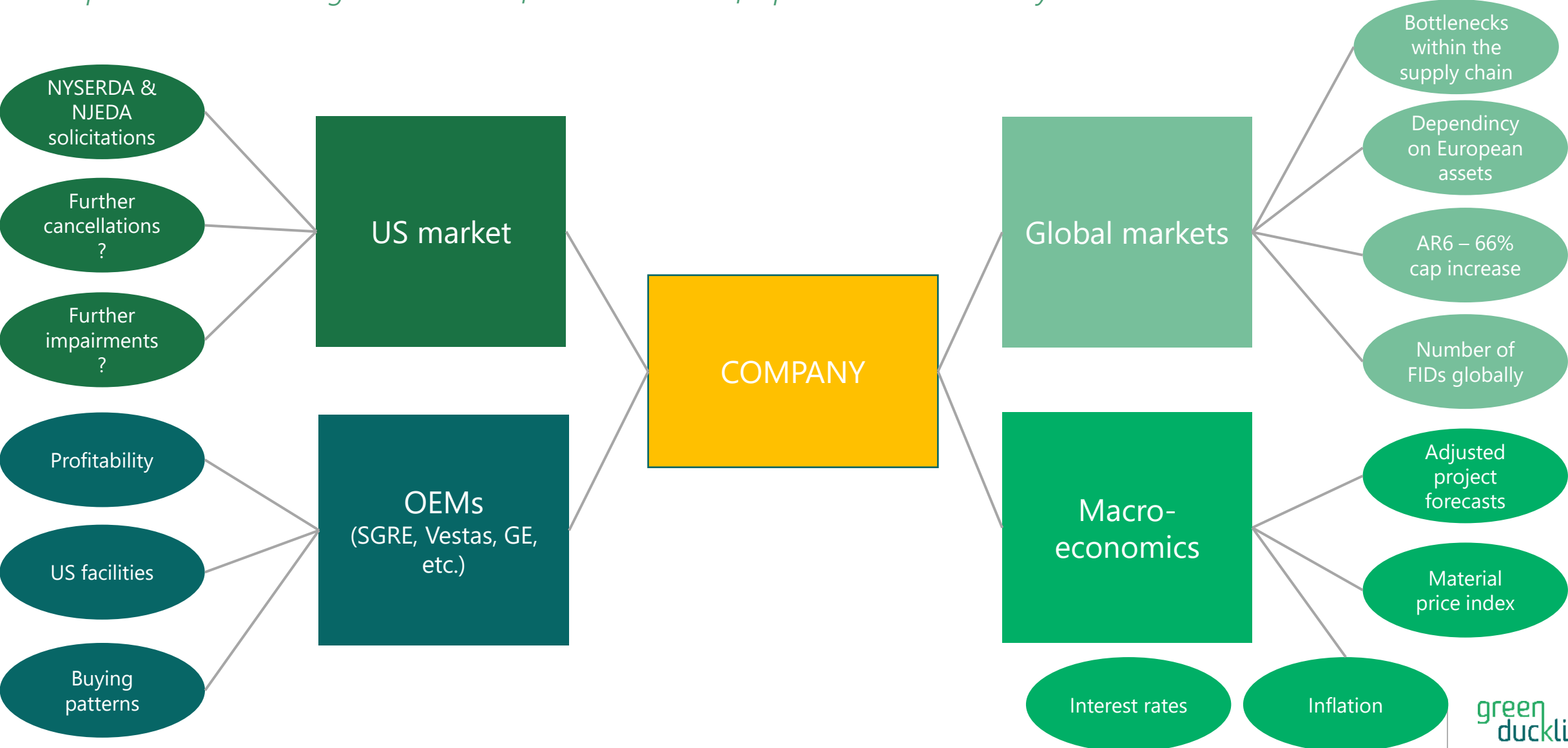
For the US market, recently announced “challenged” projects represent  
~1/3 of the 2030 installation target, and ~50% of the 2025-2028 expected installations.  
Several of these are linked with follow-up projects that likely will be delayed as well.  
The good news for supply chain companies is that the **pain points of developers are clear** and  
**big investments are at stake!**



TENDENCIES

# Your State of the Union mind map for 2024?

*Companies should navigate based on few measurable fix points in our industry*



A photograph of a calm, clear blue sea under a clear sky. The water is a deep, vibrant blue, and the sky is a pale, clear blue. The horizon is visible in the distance.

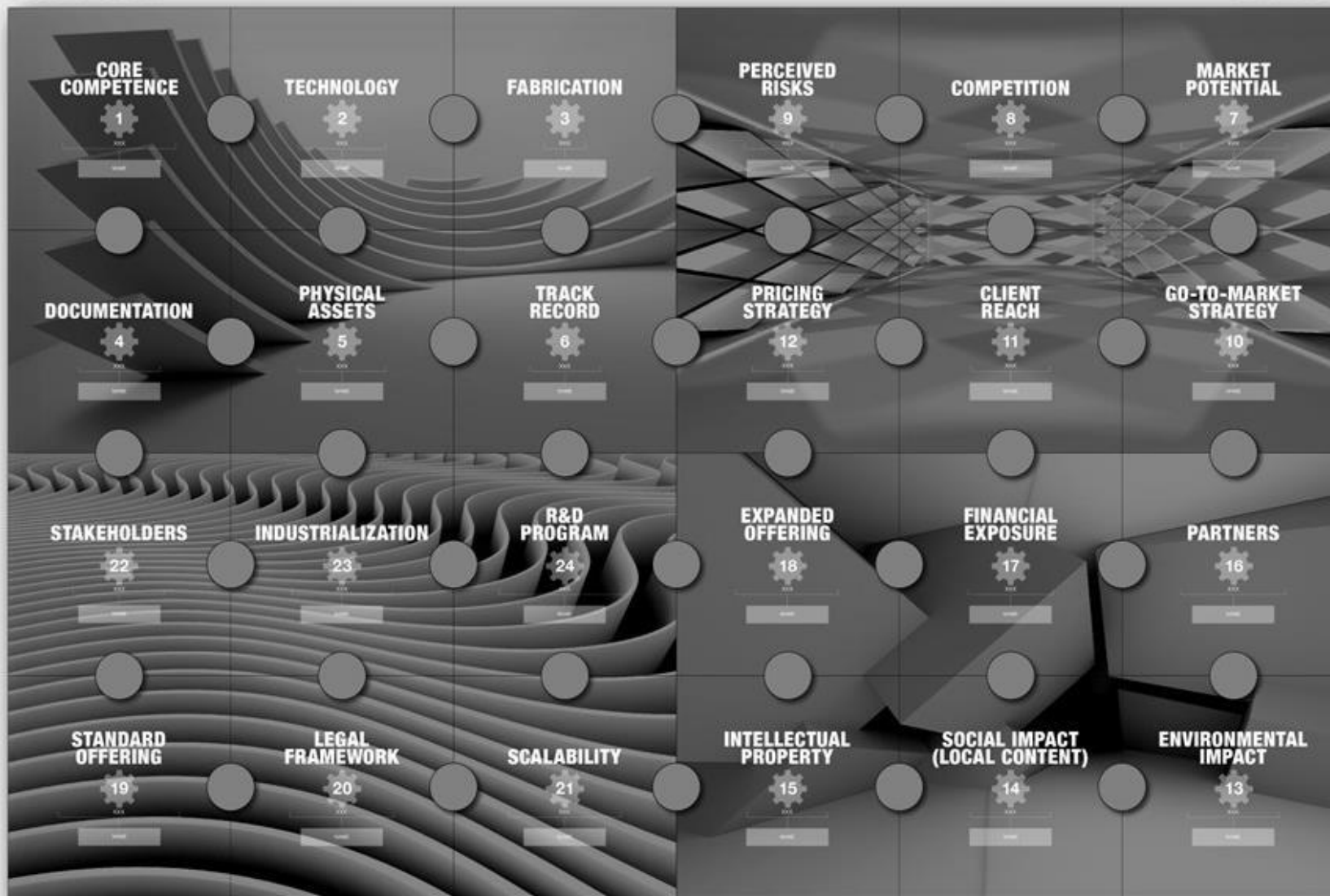
**Blind optimism**

A photograph of a turbulent, grey sea with white foam from a boat's wake. The water is dark and choppy, with several waves breaking. The foam is bright white and splashing.

**Realistic scepticism**

**BACKBONE** DNA markers 1-6

DNA markers 7-12 **MARKET**



**STANDARDIZATION** DNA markers 19-24

DNA markers 18-13 **ROBUSTNESS**



# COMPANIES MUST FOLLOW 5 STRATEGIC ACTIONS TOWARDS SUCCESS IN OFFSHORE WIND

## COMPANIES NEED TO UNDERTAKE STRATEGIC ACTIONS ACROSS A RANGE OF DIMENSIONS



### 1 CLEAR RESPONSE

US suppliers need to have a clear response to the developer's key success parameters, such as **quantification of local job creation locally, selected environmental impacts** (mainly CO2 emissions) **or risk reduction ability**



### 2 STRATEGIC POSITIONING

Through clear strategic positioning in the sector, companies can **leverage on strategic partnerships with either local or EU-companies** to fulfil capacity and competence gaps, thus increasing bargaining power.



### 3 SOLUTION-PROVIDER MINDSET

In effect, companies must **implement a solution-provider mindset** vis-à-vis a product mindset, which entails taking on larger scopes (one-stop shopping) with increased risk.



### 4 OPERATIONAL EXCELLENCE

Focus must also be placed on **Operational Excellence in efforts to improve profitability and scalability** in the sector (a mean to balance the increased risk).



### 5 SOLUTION DEVELOPMENT

Also, players must be ready to **partake in early solution development**, which entails entering at specification level to increase the strategic importance of an offering. Innovative strategic assets and IP protection becomes key to protect company values.



# Key strategic questions for local supply chain companies...

## *Question 1*

**AM I AS A SUPPLIER APPROACHING THE RIGHT CLIENT TO RELEASE MY POTENTIAL IN OFFSHORE WIND?**

DO I UNDERSTAND WHICH TIER-LEVEL I AM PART OF?  
AM I AIMING AT THE RIGHT LEVEL AT THE CLIENTS?

## *Question 2*

**DO I UNDERSTAND WHAT MY CLIENT REALLY NEEDS?**

HOW DO OUR PRODUCTS/SERVICES AFFECT MY CLIENT'S PERCEIVED RISKS AND OPPORTUNITIES?  
DOES MY CLIENT HAVE THE SAME VIEW AS I DO ON MY ABILITY TO DELIVER?  
AM I AWARE OF MY CLIENT'S REQUIREMENTS IN TERMS OF DOCUMENTATION, CERTIFICATION AND QUALITY ASPECTS?

## *Question 3*

**WOULD I REALISTICALLY BE ABLE TO TAKE CONTRACTS THAT I AM HOPING TO WIN?**

DO I UNDERSTAND THE CONTRACTUAL LIABILITIES THAT I WILL MOST LIKELY FACE WHEN I SUCCEED?  
CAN I DELIVER TO THE NECESSARY SCALE?

## *Question 4*

**SHOULD I BE SEEKING PARTNERSHIPS TO TAKE ON FURTHER SCOPE?**

DOES MY ISOLATED DELIVERIES FILL THE PLATE IN TERMS OF WHAT THE CLIENT WOULD IDEALLY BE LOOKING FOR?  
COULD I DO LOCAL OR GLOBAL PARTNERSHIPS TO INCREASE MY STRATEGIC RELEVANCE AS PART OF A COHORT?

## *Question 5*

**AT WHAT TIME SHOULD I BE IN POSITION FOR MY CLIENTS AND HOW DO I PRIORITIZE MY EFFORTS?**

DOES MY CLIENT HAVE ACCESS TO PRE-FID DIALOGUE WITH HIS/HER CLIENT? WHEN DOES HE/HER GET A FIRM ORDER?  
AM I A STRATEGIC SUPPLIER TO MY CLIENT OR RATHER A COMMODITY?

# THANK YOU

Improving the Odds for  
Success in Offshore Wind



**Thank You for attending today's Supplier Forum.**

**Please join us for networking and reception inside the Exhibit Hall.**

