



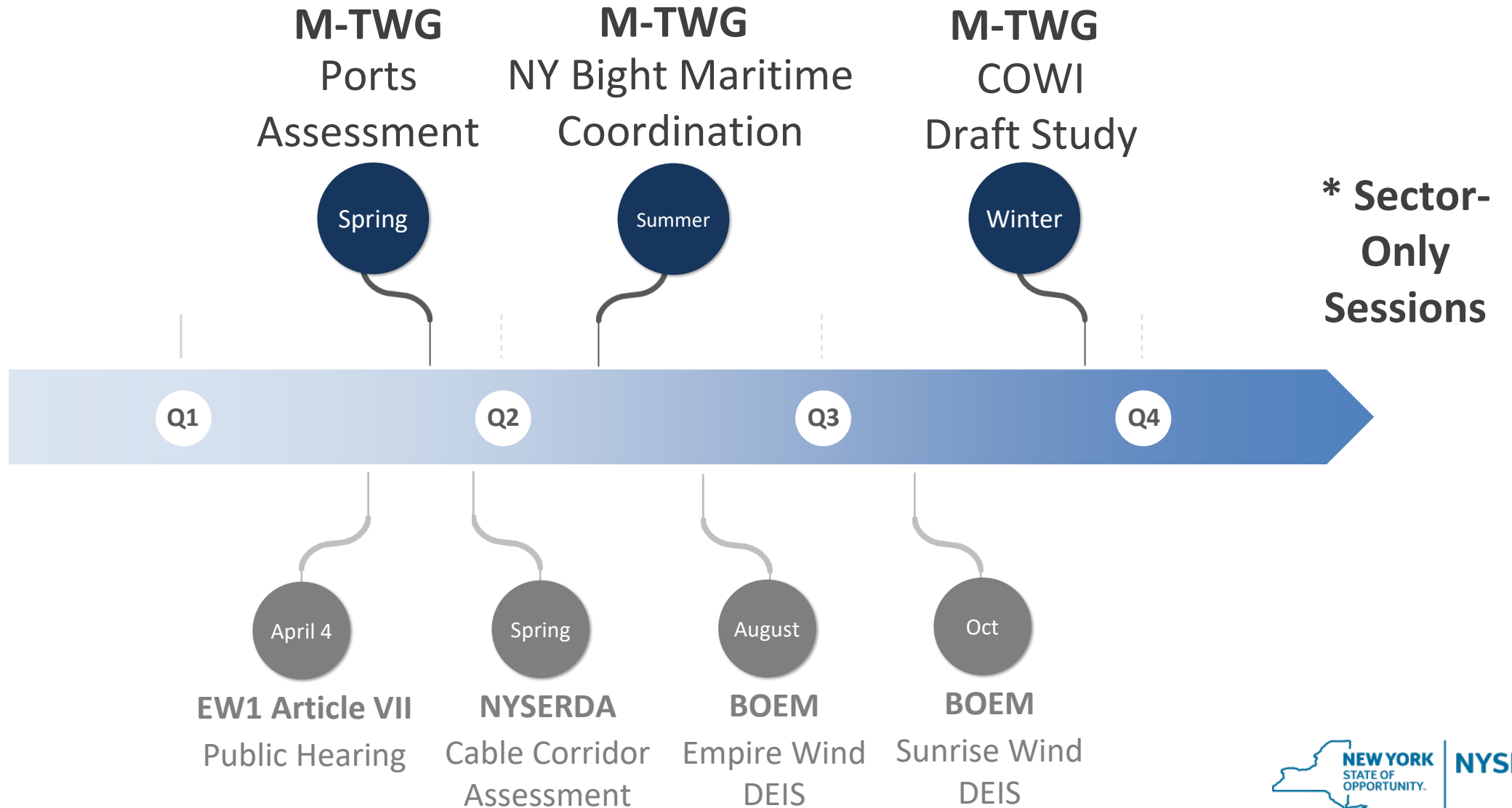
NYSERDA

Maritime Technical Working Group Meeting

March 23, 2022 | Zoom Webinar



M-TWG 2022 Meeting Plan



Technical Support (BTMI | COWI)

1: Anchorage Area Assessment

- Where are informal, common practice anchorage areas located?
- Are there existing anchorage areas that are rarely used?
- Are additional anchorages needed to accommodate vessel traffic changes?

2: Analysis of Loss of Propulsion & Steering Data

- How often and where do temporary/emergency loss of power events occur?
- How often do vessels undertake 180-degree turns to/from NY/NJ Harbor approaches?
- What, if anything, can be done to reduce their frequency and risk of negative outcomes?

Governor Hochul 2022 State of the State: OSW Highlights



**\$500 MILLION INVESTMENT IN
OFFSHORE WIND
MANUFACTURING & SUPPLY CHAIN**

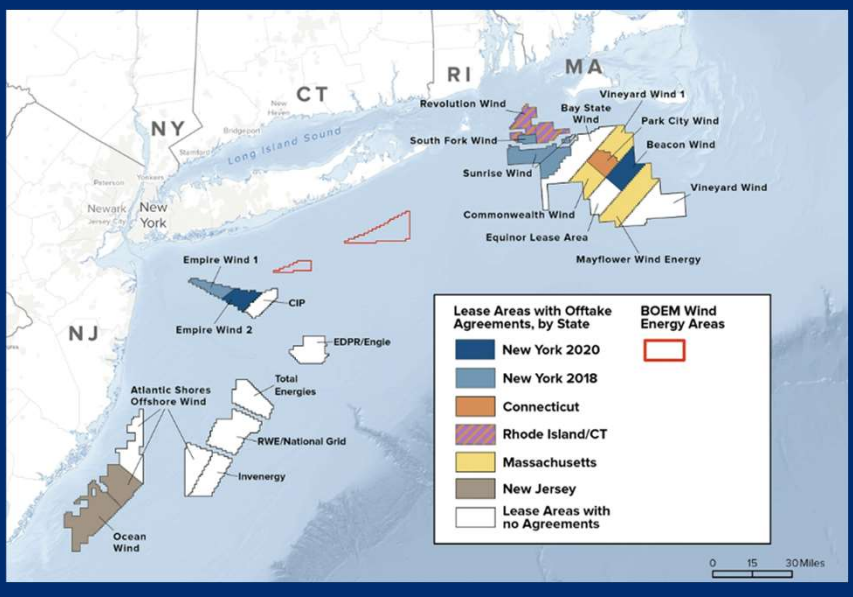
#StateOfTheStateNY #NYActsOnClimate

- > **\$500 million in Critical Offshore Wind Infrastructure:** Bringing New York's total public commitments to OSW ports, manufacturing, and supply chain infrastructure to a nation-leading total of \$700 million
- > **Procure at least 2 GW in NYSERDA's next OSW solicitation:** Enough new offshore wind energy to power at least 1.5 million homes and create at least 2,000 new jobs and award additional scoring credit to proposals the repurpose downstate fossil-fuel power plants
- > **Initiate Planning for a Future Offshore Wind Transmission Network:** To deliver +6 GW to NYC via a New York State Cable Corridor Study
- > **Launch the Offshore Wind Master Plan 2.0 Deep Water:** Building on the success of New York's award-winning Offshore Wind Master Plan, NYSERDA will initiate a new Master Plan 2.0: Deep Water to unlock the next frontier of floating OSW development

President Biden's Administration set offshore wind goals of **30 GW by 2030** and **110 GW by 2050**

Key elements of the Administration's announcement:

- > **6 new Wind Energy Areas** with 4 new developers in the New York Bight to deliver more than **5.6 - 7 GW**
- > **Joint supply chain effort** announced between BOEM-NY-NJ, including quarterly meetings of the **Regional Working Group on Supply Chain Development**
- > Advance up to **7 new lease sales by 2025**
- > Proceed with critical permitting and environmental reviews
- > Invest **\$230 million** for port and intermodal infrastructure-related projects (**\$50 million awarded to New York Ports in 2021!**), plus **\$3 billion** earmarked for offshore wind innovation in the DOE Loan Offer Program



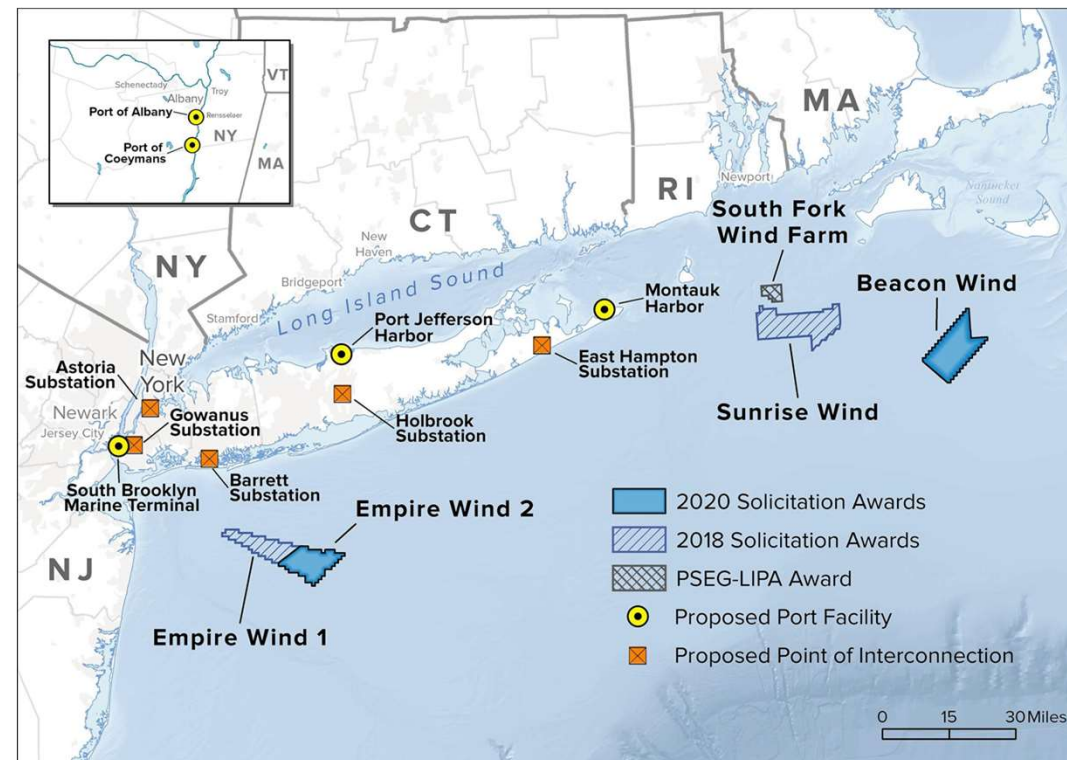
More than 4,300 MW in Active Development

Nation Leading 5 Offshore Wind Projects

- > More than **6,800** direct jobs
- > Combined economic activity of **\$12.1 billion** in labor, supplies, development, and manufacturing statewide

2022 Milestones:

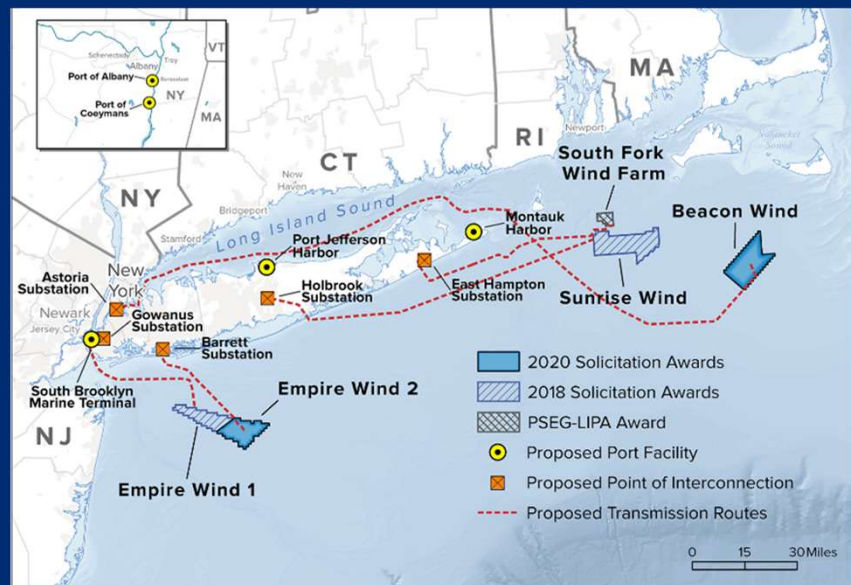
- > BOEM auctioned **6 new lease areas** in the NY Bight
- > **Joint supply chain effort between BOEM, NY and NJ**
- > Contracts for Empire Wind 2 and Beacon Wind finalized
- > Governor Hochul announced **\$500 million** to support offshore wind supply chain
- > South Fork Wind receives federal approval to **start construction**



2018 and 2020 Offshore Procurements

Competitively Priced with Tremendous Benefits:

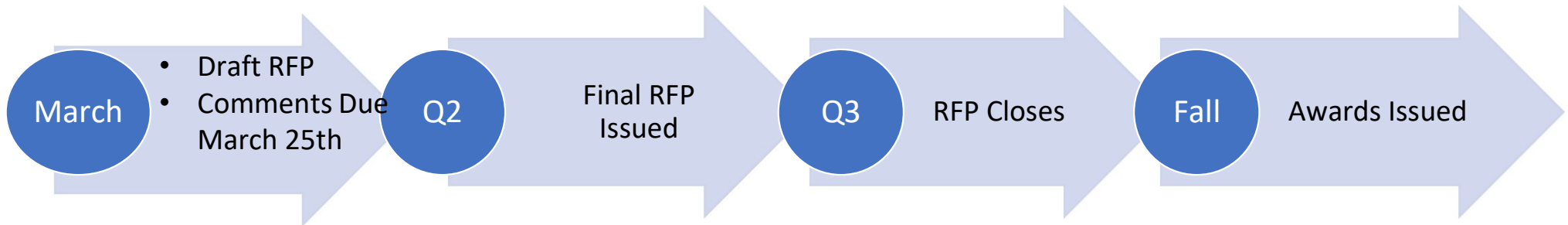
- > The average bill impact for customers via 2020 procurement will be approximately **0.8%, or about \$0.95 per month**; Total project costs, including an **average all-in development cost of \$80.40 per megawatt hour** in 2020 Procurement were approximately **7% lower than those of the 2018 awards**
- > **Power more than 2.4 million New York homes**
- > More than **\$12.1 billion** in anticipated in-state spending and the creation of more than **6,800 jobs** backed by commitments to paying prevailing wage and negotiating project labor agreements
- > **\$730 million** in combined private and public funds
- > Unprecedented public and private funding commitments of **\$644 million in port infrastructure**, including:
 - **\$357 million** in the nation's first offshore wind tower manufacturing facility to be built at the Port of Albany
 - More than **\$287 million** in an offshore wind staging and assembly facility at the South Brooklyn Marine Terminal





“NY3” Offshore Wind Solicitation Schedule

- > Released an ORECRFP22-1 **DRAFT** RFP March 11, 2022
 - Opportunity for new entrants, incumbents and supply chain developers to review draft and provide feedback before Final RFP
- > Issuing the **FINAL** ORECRFP22-1 in Q2
- > RFP is expected to **CLOSE** Q3
- > Contract **AWARDS** are expected by Fall 2022



NEW ADDITIONS

- \$500 MM of Funding to Catalyze Marquee Investments
- Offshore Transmission Grid “Mesh-Readiness”, and Optional Storage
- Prioritized Fossil-Fuel Retirements
- Stakeholder Engagement, Labor Plans and Environmental Stewardship
- Benefits to NYS Disadvantaged Communities including Workforce Training
- 2021 NYS Public Service Law Changes: Prevailing Wage, Project Labor and Peace Agreements

NY3 SCORING CONSIDERATIONS

70% Price

20% Economic Benefits

10% Viability

Learn More:

Offshore Wind
of the **State**
Science

- *2022 State of the Science Workshop on Wildlife and Offshore Wind: Building on Existing Knowledge and Emerging Collaborations*
 - July 26-28
 - Sleepy Hollow Conference Center
 - Tarrytown, NY
 - www.nyetwg.com/2022-workshop



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PORT ACCESS ROUTE STUDIES UPDATE

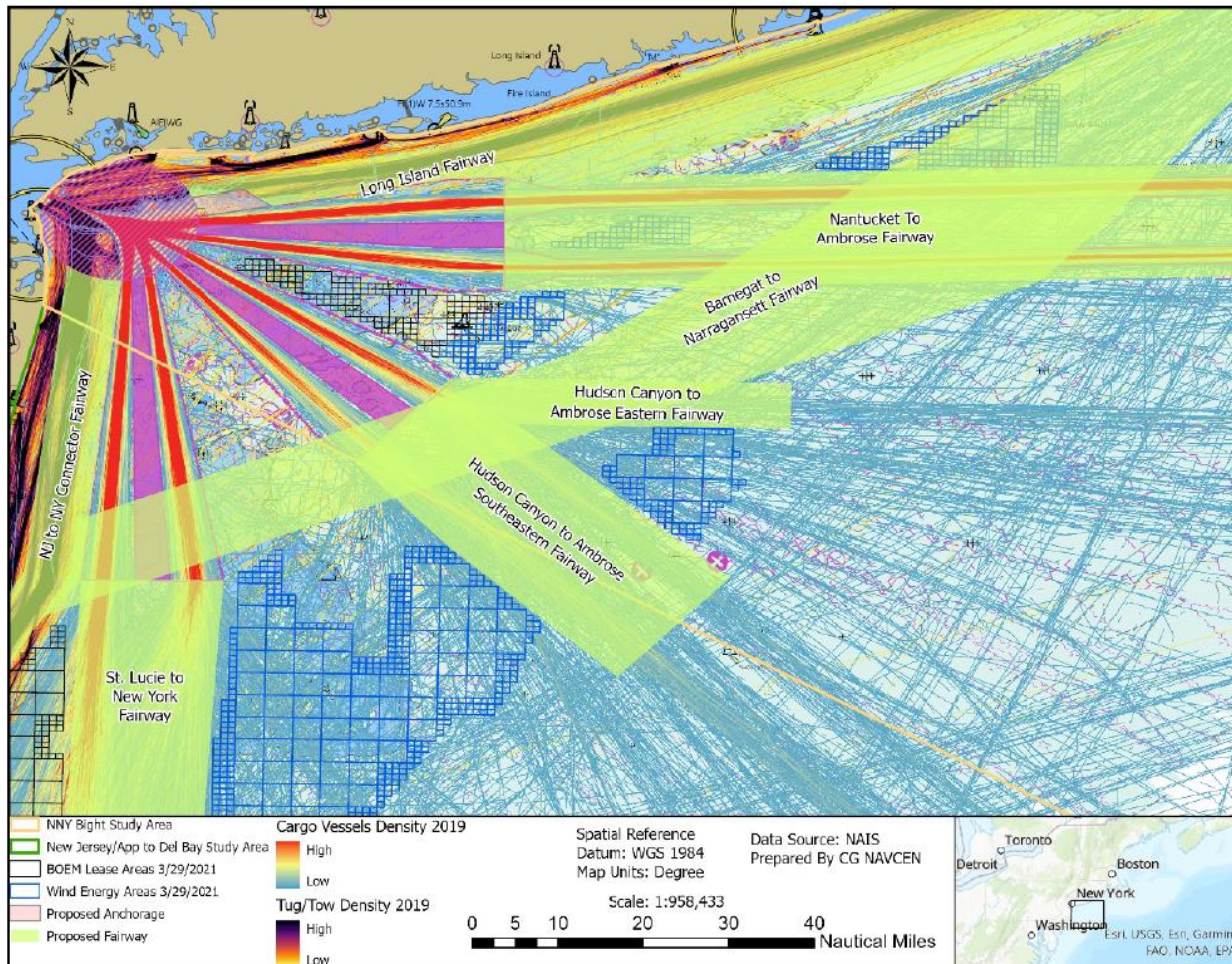
Mr. John Stone, Coast Guard Headquarters, Washington, DC



Homeland
Security

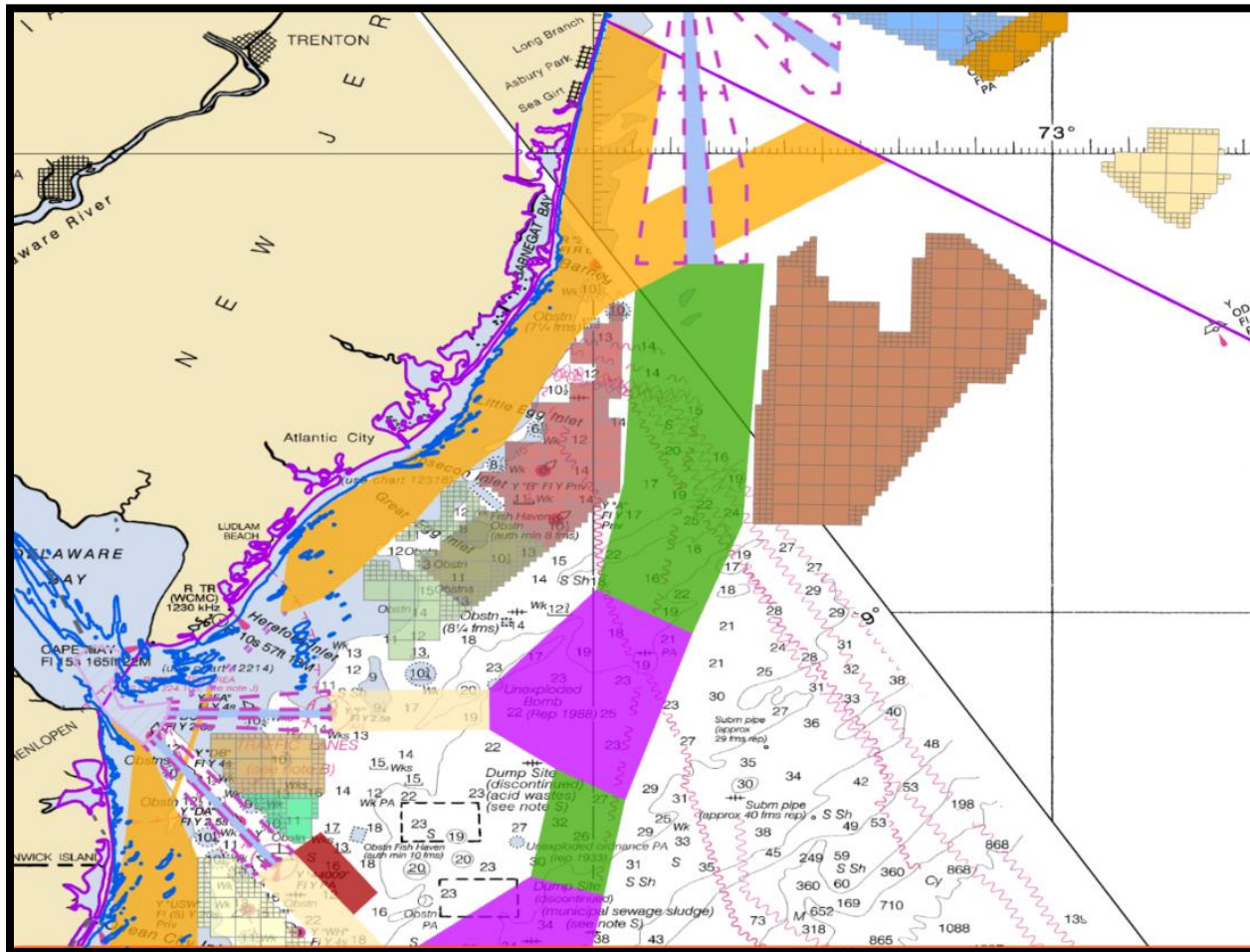


Northern New York Bight PARS



- Final report published December 27, 2021 in Federal Register
- Key Recommendations include
 - Long Island Fairway
 - Combining Nantucket/Ambrose Fairways
 - Barnegat to Narragansett Fairway
 - NY/NJ Connector
 - 2 Hudson Canyon Fairways
 - Ambrose Anchorage

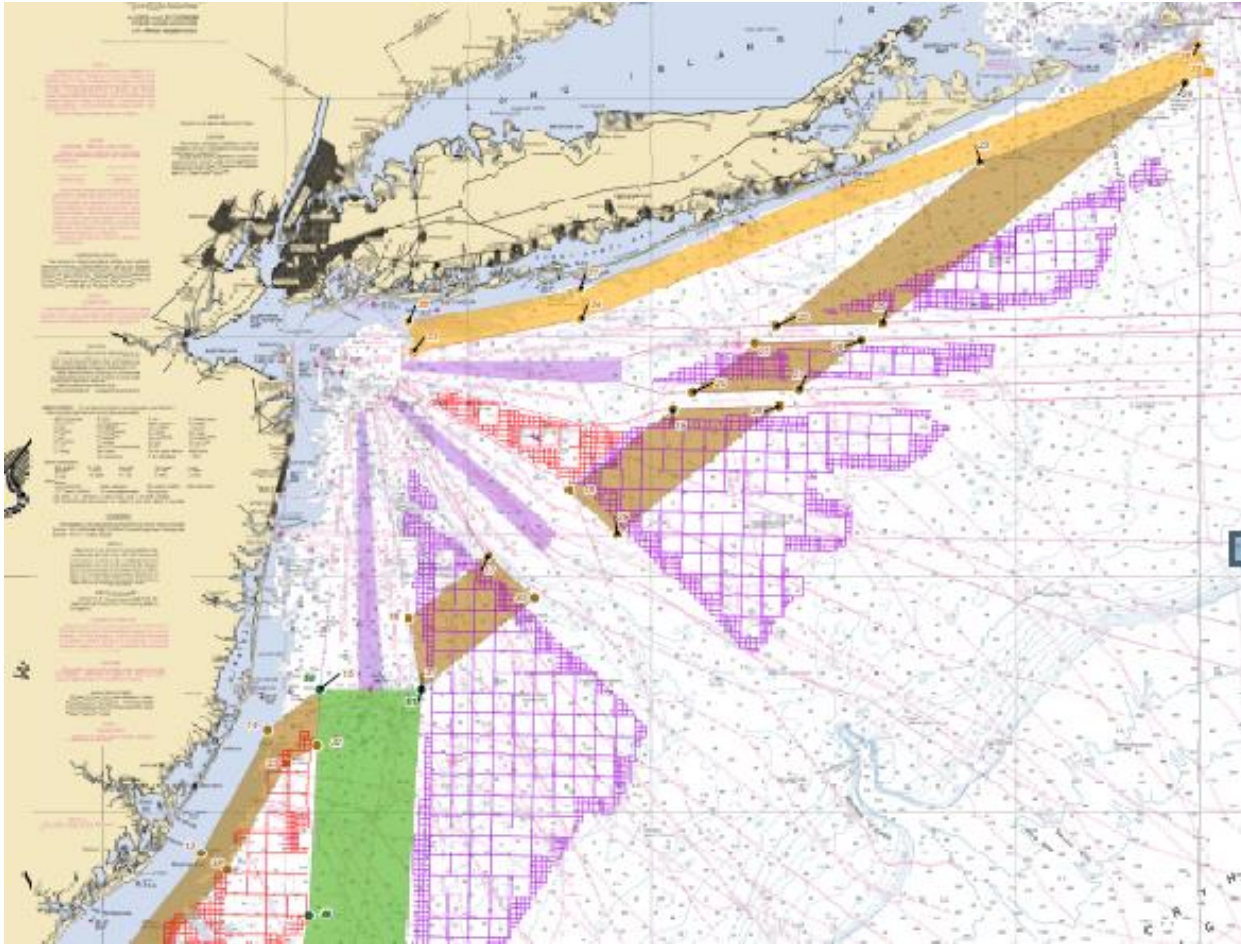
Seacoast of New Jersey PARS



- Final report published this week
- Key Recommendations include:
 - NY/NY Connector
 - Barnegat to Narragansett Fairway
 - Precautionary Areas
 - TSS Extensions
 - Fairway Anchorage
 - Two-way Route



Shipping Safety Fairways Along the Atlantic Coast NPRM



ANPRM Proposal

- Under Review
- Anticipate publish this summer
- Consolidated proposal from all Supplemental PARS and ANPRM



“We Help Mariners Get There”

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**Homeland
Security**





NYSERDA

New York Offshore Wind OREC RFP 2022, NY3 Briefing

Winter 2022



**New York State
Jobs and Workforce Development
Updates**

What's New with JSC-TWG?

Re-started meetings Feb 28th

Provided supply chain events and workforce dev updates

Great Lakes Dredge and Dock, SUNY Maritime, and Strum Contracting

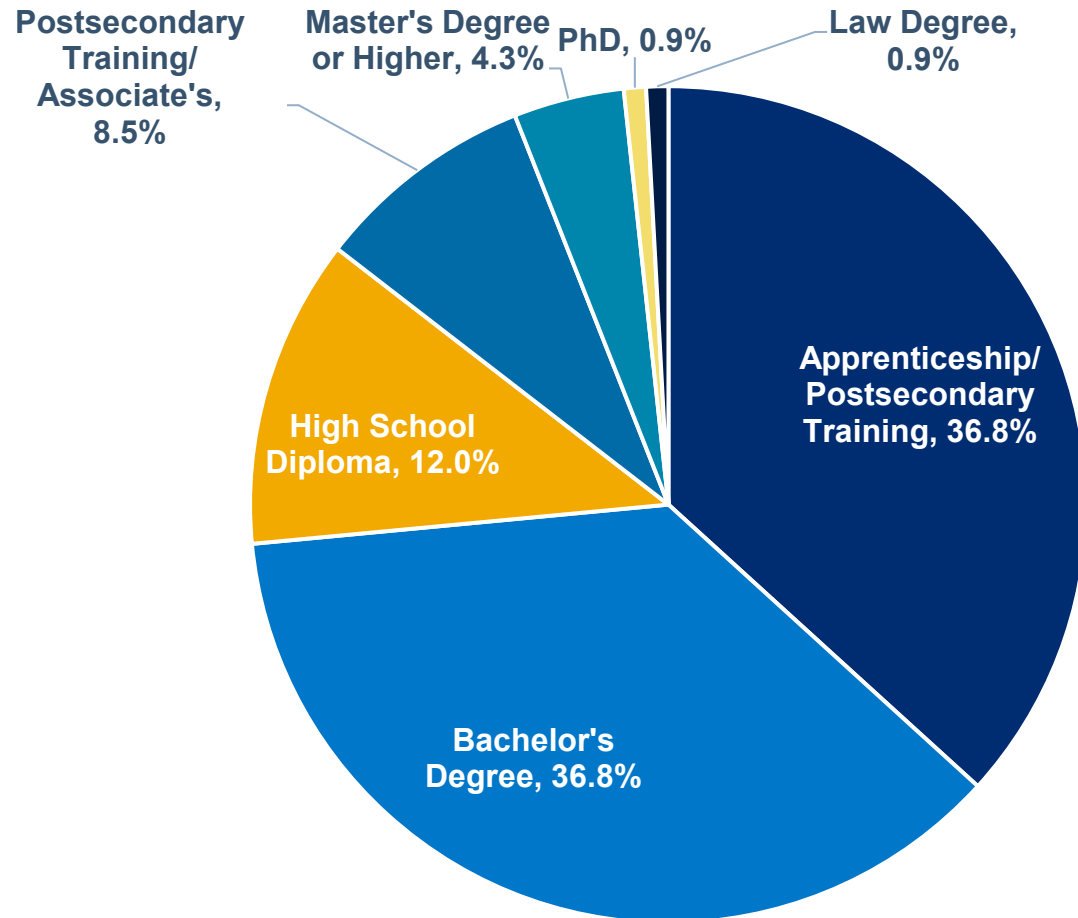
There will be another meeting in the spring to discuss updates for offshore wind project construction and workforce development. JSC-TWG members are encouraged to send additional agenda topic ideas to Peter and Jessica

Presented Gap Analysis completed by BW Research

Top 10 Occupations with Projected Workforce Gaps

Occupation	Estimated Workforce Gap	Typical Education
Plant and System Operators	High	Apprenticeship/Postsecondary Training
Hoist and Winch Operators	High	Apprenticeship/Postsecondary Training
Continuous Mining Machine Operators	High	Post-secondary Training or Associate's
Wind Turbine Service Technicians	High	Post-secondary Training or Associate's
Metal-Refining Furnace Operators and Tenders	Moderate	High School Diploma
Metal Workers and Plastic Workers	Moderate	Apprenticeship/Postsecondary Training
Computer Tool Programmers	Moderate	Apprenticeship/Postsecondary Training
Structural Metal Fabricators and Fitters	Moderate	Apprenticeship/Postsecondary Training
Plating Machine Setters, Operators, and Tenders, Metal and Plastic	Moderate	High School Diploma
Engine and Other Machine Assemblers	Moderate	High School Diploma

Typical Educational Attainment



Top 10 occupations with a high to moderate workforce gap require Apprenticeship/Postsecondary or High School Diplomas

Training New York's Offshore Wind Workforce
Over \$100 Million Dollars of Funding

New York State	Offshore Wind Training Institute (OWTI) \$20M NYSERDA \$10M SUNY Stony Brook and Farmingdale \$10M	NYSERDA – Environmental Justice, Labor, CBOs, Supply Chain (HVCC Welding, LAGCC Wind Techs)
	NYSERDA Workforce ~\$15M	SUNY - Exclusive to SUNY institute programs
	CUNY \$20M: \$10M DOB \$10M NYC EDC	Clean Energy Internships PON 4000 ; Climate Justice Fellowship PON 4772; OJT Training PON 3982
	Program Development at CUNY's diverse campus locations in NYC Kingsborough Community College CTV Simulator, At Height Training NYCCT, LGCC, Grove School of Engineering	
Federal	SUNY Maritime \$795,000	GWO Training Center Bronx, NYC Campus
Private Sector	Sunrise Wind (Orsted/Eversource) \$1M	Upper Hudson Offshore Wind Workforce Development Fund Advance Component Manufacturing
	Sunrise Wind (Orsted/Eversource) \$10M	National Offshore Wind Training Center (NOWTC) in Suffolk County Focus on GWO
	Sunrise Wind (Orsted/Eversource) \$5M	Stony Brook University Advance Energy and Research Technology Center (AERTC)
	Empire Wind 1 (Equinor/BP) \$5M	Community Workforce Benefit Fund Just access to workforce development and equity
	Empire Wind 2/Beacon Wind (Equinor/BP) \$47M	Community Benefits + Workforce Development Split Between 2 Projects; More Info to Come
	ORECRFP22-1 Future Opportunity	Community Engagement
		Workforce Development
	Technology & Innovation Acceleration	

OSW Workforce Development and Training (Private Funding)

Project & Funding	Funded Entity	Progress
Sunrise Wind \$1M	Upper Hudson Offshore Wind Workforce Development Fund Advance Component Manufacturing	<ul style="list-style-type: none"> • Issuing the first round of funding to support the Multicraft Apprenticeship Preparation Program, Inc. (MAPP), in collaboration with the Center for Economic Growth. • Announcements coming this month or next!
Sunrise Wind \$10M	National Offshore Wind Training Center (NOWTC) in Suffolk County Focus on GWO	<ul style="list-style-type: none"> • Workforce Development Institute (NY) drafted business plan, completed a work force needs assessment, and continues to support an education and outreach program led by Citizens Campaign for the Environment • Entering into a management agreement with MAERSK for a suite of GWO training in purpose-built facilities, and to solidify the location of those facilities • Gang violence facility
Sunrise Wind \$5M	Stony Brook University Advance Energy and Research Technology Center (AERTC)	<ul style="list-style-type: none"> • The VP of Research, Rich Reeder, led a call for project submissions to SBU faculty following April introductory presentation • The first round of projects selected for funding as result of that process were awarded last summer. • SBU, together with Orsted/Eversource is working to plan an event in the May/June timeframe to present their work to date.
Empire Wind 1 \$5M	Community Workforce Benefit Fund	<ul style="list-style-type: none"> • Strategy Committee set up developing the strategy document for administering the fund. • The committee meets monthly and is comprised of equal reps from NYCEDC, Equinor and the Sunset Park Taskforce. • Note that this fund is not just addressing workforce, but also innovation and the just transition into the green space for low-income new Yorkers. • RFP to open late summer 2022. Disbursements will not begin until end of 2023.
Empire Wind 2/Beacon Wind \$47M	Community Benefits + Workforce Development Split Between 2 Projects; Not Public	

OSW Workforce Development and Training (Public Funding)

Project & Funding	Funded Entity	Progress
OWTI \$20 MM	Offshore Wind Training Institute (OWTI) NYSERDA \$10M SUNY Stony Brook and Farmingdale \$10M	<ul style="list-style-type: none"> • NYSERDA: Issued first solicitation awarding LAGCC – offshore wind technician school; HVCC Manufacturing training and certifications • NYSERDA: Hosting informative Webinar in April, DAC round tables in May to inform Q2 OWTI Solicitation and build partnerships • Stonybrook: We anticipate the SUNYs will update their implementation plan asap • Farmingdale: We anticipate the SUNYs will update their implementation plan asap
NYSERDA Workforce Dev \$15 MM	NYSERDA Workforce PONS Associated with OSW	<ul style="list-style-type: none"> • Clean Energy Internships PON 4000 ; Climate Justice Fellowship PON 4772; OJT Training PON 3982 – on the street
CUNY \$20 MM	Diverse Campus Locations	<ul style="list-style-type: none"> • Program Development at CUNY’s diverse campus locations in NYC • Kingsborough Community College CTV Simulator, At Height Training • NYCCT, LGCC, Grove School of Engineering
SUNY Maritime \$795,000	GWO Training Center	<ul style="list-style-type: none"> • Still in appropriations. • Dynamic positioning training?
Port of Albany \$1.5 MM	Wind Turbine Tower Manufacturing training Facility For Marmen Welcon Tower Manufacturing	<ul style="list-style-type: none"> • Senate Majority Leader just announced he secured \$1.5 MM in federal funding for a new training center to be located in Albany’s South End for Wind Turbine Assembly Jobs • Readying workforce for the facility, the training center is located next to the port. The South End is an economically disadvantaged neighborhood where the majority of residents are people of color.

Next Steps for Workforce Training Coordination

- **Overall Goals**
 - ✓ **Centralize planning and coordinate across stakeholders**
 - ✓ **Ensure workforce is ready when we need them**
 - ✓ **Engage DACs to better develop future OWTI Solicitations**
 - ✓ **Release competitive solicitations**
- **Launch Website – Q2 2022**
 - ✓ **March Individual Catch Up Meetings – Information Sharing on Progress**
 - ✓ **Prepare for NYSERDA OWTI Solicitation – Q2 2022**



PON 4000

Key Highlights	PON 4000 Clean Energy Internship Program
Examples of Eligible Technology Areas	<ul style="list-style-type: none"> • Energy Efficiency • Renewable Electric Power Generation • Grid Modernization and Energy Storage • Alternative Transportation • Renewable Fuels
Eligible Interns	<ul style="list-style-type: none"> • NYS residents who are current college students, recent graduates, members of priority populations/disadvantaged communities
Wage Reimbursement	<ul style="list-style-type: none"> • Reimbursement is available on a sliding scale for hourly wages of up to \$17.00 for up to 480 hours per internship. <ul style="list-style-type: none"> • 90% of intern wages covered for employers with 2-100 employees. • 75% of intern wages covered for employers with 101+ employees. • Minimum requirement of 2+ employees waived for MWBEs, WBEs and SDVOBs.
Process	<ul style="list-style-type: none"> • Both businesses and interns must apply via online application (one time per business). • Businesses submit an application for each internship, including a job description and signed offer letter to reserve funding. • Invoices submitted to NYSERDA for reimbursement at the end of the internship or at 3-month intervals during the internship.

- Employers can have up to 30 interns, while MWBEs/SDVOBs have no cap on the number of interns they can hire during the duration of the program
- Program is open to businesses, not-for-profits, municipalities, and direct entry pre-apprenticeship programs who provide clean energy services

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PON 3982

Key Highlights	PON 3982 On-the-Job (OJT) Training Program
<p>Eligible Businesses</p>	<ul style="list-style-type: none"> • HVAC and renewable heating and cooling • High efficiency water heating • Insulation and/or air sealing • High efficiency lighting and controls • Building automation and controls • Smart grid, energy storage & EV charging stations • Building operations and maintenance • Solar electric photovoltaics, solar thermal, and related areas • Offshore and Land-Based Wind and related areas
<p>Wage Reimbursement</p>	<ul style="list-style-type: none"> • 50%-75% wage reimbursement new hire's training period. <ul style="list-style-type: none"> ○ 75% for MBE/WBE/SDVOB businesses and heat pump hires ○ 50% for all other hires ○ 6 months for hires from a priority population/disadvantaged community ○ 4 months for all other hires
<p>Process</p>	<ul style="list-style-type: none"> • Online business application to verify eligibility for program • NYSDOL review, approval, and support for hiring • New Hire applications submitted to NYSERDA for approval • Invoices submitted for reimbursement after 4 weeks

- \$8,500 per hire average funding
- Businesses can receive up to \$150,000 for hiring traditional workers, with no cap on hiring individuals from priority populations / disadvantaged communities

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PON 4772

Key Highlights	PON 4772 Climate Justice Fellowship
Eligible Applicants	<ul style="list-style-type: none">• <u>Businesses</u>: NYS CBOs, universities, municipalities, climate tech investors/start-ups, venture development organizations, clean energy businesses or firms dedicated to advancing climate justice and clean energy priorities in Disadvantaged Communities (DACs)• <u>Fellows</u>: New hires who are NYS residents and currently reside in a DAC or Priority Population
Fellowship Criteria	<ul style="list-style-type: none">• <u>Duration</u>: 12 months, full-time (35-40 hours/week)• <u>Scope of Work</u>: Environmental and climate justice to advance an equitable clean energy transition for all communities, especially those disproportionately burdened by environmental health hazards• <u>Support Services</u>: Professional development and mentoring + comprehensive benefits
Funding	\$6M for 150 Fellowships over 3 years
Max. Amount	\$40K per Fellow (incl. \$37K salary and \$3K in supportive services)
Deadline	Due dates anticipated Q3 2022 and 2023

Photo: Lagos Techie @ [Unsplash](#)

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