

Learning from the Experts Webinar Series

A Panel on Economic Development



Katie Newcombe
Chief Economic Development Officer
Center for Economic Growth



David Whipple
Director of Industry Development
Empire State Development

November 10, 2021



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Vice President
New York City Economic Development
Corporation



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Long Island Lead
Climate Jobs New York

November 10, 2021

Meeting Procedures

Webinar recordings and presentations will be available at: www.nyserda.ny.gov/osw-webinar-series

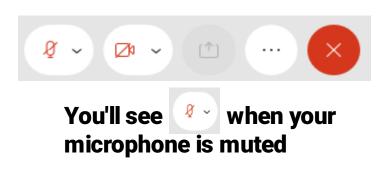
Participation for Members of the Public:

> Members of the public will be muted upon entry.

> Questions and comments may be submitted in writing through the Q&A feature at any time during the event.



> If technical problems arise, please contact Sal.Graven@nyserda.ny.gov





Learning from the Experts

This webinar series is hosted by NYSERDA's offshore wind team and features experts in offshore wind technologies, development practices, and related research.

DISCLAIMER:

The views and opinions expressed in this presentation are those of the presenter and do not represent the views or opinions of NYSERDA or New York State.



EMPIRE STATE DEVELOPMENT

ESD MAIN OFFICES:

633 Third Avenue – Floor 37 New York, NY 10017 (212) 803-3100

625 Broadway Albany, NY 12245 (518) 292-5100

95 Perry Street, Suite 500 Buffalo, NY 14203 (716) 846-8200





Offshore Wind Focus

- 9 GW offshore wind
- 10,000 jobs
- Port upgrades



70% RENEWABLE ENERGY by 2030

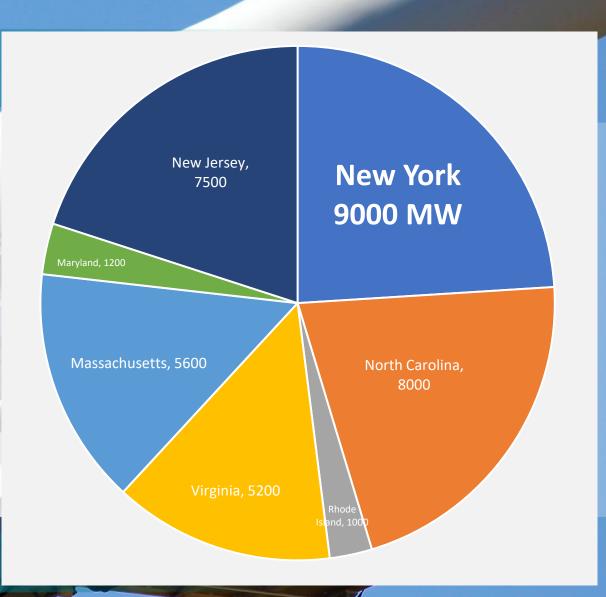
New York State has made a historic commitment to transforming New York's electricity sector to be

> 100% CARBON-FREE by 2040

and putting the State on the path to eventually eliminating its carbon footprint all together

NYS OFFSHORE WIND

- Nation Leading 9GW (9000 MW)
- Nearly 1/3 of US Target of 30GW
- Electricity for 6m homes



OFFSHORE WIND JOBS



Manufacturing



Construction



Maintenance

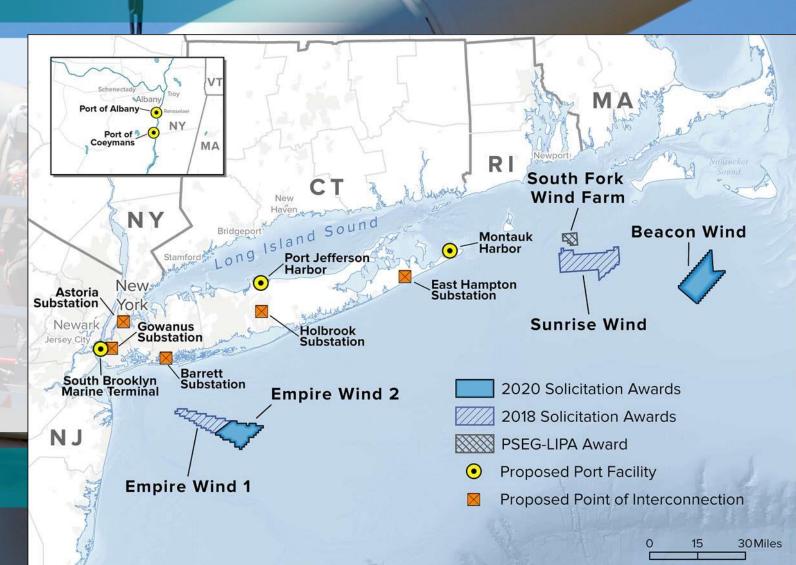


Operations

NYS OFFSHORE WIND

Status Update

- 5+ Ports in Active Development
- 5 Lease Areas
- 6800 Jobs
- \$12.1B Economic Activity



WHO WE ARE – NEW YORK'S LEAD ECONOMIC DEVELOPMENT AGENCY

- ESD Regional Offices are experts on local resources and opportunities, bringing a full range of resources and information to the table to enhance the success of a venture.
- Our Strategic Business Division works
 with high value-added industry clusters and
 key accounts, and gives major employers
 considering multiple sites in NYS a
 "big picture" view.
- Global NY, our International Division runs
 Trade Missions and maintains foreign offices
 to increase export opportunities, as well as attract direct foreign investment.
- The Small Business Division gives small enterprises the special attention they need to gain a strong foundation, flourish and grow.
- The Minority & Women-Owned Business
 Division helps assure the success of businesses owned and operated by MWBEs.

HOW WE HELP

Business Incentives

- Grants
- Refundable Tax Credits
 "Green" projects receive enhanced credits starting 2020
- Low-Cost Power

Business Finance

- JDA Loan Program
- NYS Innovation Venture Capital Fund
- Linked-Deposit

Location Assistance

- Regional Partners
- Real Estate Listings
- Shovel Ready Certification

Industry-University Partnerships

NYSTAR

Training and Workforce Development

- ETIP
- NYS DOL
- NYSERDA

SUCCESS STORY - LJUNGSTROM

Matt Ferris, Ljungstrom Managing Director

"Ljungstrom is very excited for this opportunity to work together with our partners to help them successfully execute the first offshore wind project for New York. This is a very important milestone in our company's strategy to diversify our business from fossil fuel power generation over the last 98 years, into the emerging green/renewable market for offshore wind power generation."



\$86m offshore wind supply chain agreement



NYS OFFSHORE WIND

- Results of 20% economic benefit criteria
- Major results in:
 - Capital Region
 - NYC
 - Long Island





David Whipple | MBA | Director of Industry Development Strategic Business Development | Albany, NY

Empire State Development

(518) 292-5257: Office Direct

(646) 398-2191: Mobile

Accelerating Economic Opportunity in New York's Capital Region





The Center for Economic Growth

The Capital Region's Economic Development Organization

Mission: Drive Economic Growth

Accomplished by:

Attracting Investment and Talent

Growing Manufacturing and Workforce Capabilities, Industry Clusters, and the Entrepreneurial Ecosystem

Preparing Our Region to Compete

Collaborating Across Public, Private, and Academic Partners



Federal Support

Deploy 30 Gigawatts (GW) of Offshore Wind by 2030

- \$12 billion per year in capital investment
- Create tens of thousands of good-paying, union jobs
- Generate enough power to meet the demand of more than 10 million homes
- Massive supply chain benefits
- Open new wind energy area in the New York Bight
- Advance permitting through BOEM
- Supporting critical research and development and data-sharing
- Invests in port infrastructure

Extend Goal to 110 GW by 2050

Source: <u>FACT SHEET: Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs</u> (March 29, 2020)



Offshore Wind Project Pipeline



Source: 2019 Offshore Wind Technology Data Update, NREL Publication (2020)



United States Supply Chain Forecast and Opportunity

Northeast and Mid Atlantic supply chain could be a **\$109 billion** opportunity by 2030

More than:

- 2,057 offshore wind turbines and towers
- 2,110 offshore turbine and substation foundations
- 8,000 kilometers of export and array cables
- 53 offshore and onshore substations



For the considered build-out capacity of 32 GW, the report looked at the anticipated state offshore wind power procurements this decade: New Jersey 7,558 MW, New York 9,314MW, Massachusetts 5,604MW, Connecticut 2,108 MW, Rhode Island 1,000MW, Maryland 1,568MW, Virginia 5,200MW

Source: <u>Supply Chain Contracting Forecast for U.S. Offshore Wind Power</u>, University of Delaware Special Initiative on Offshore Wind (2021)

Economic Impact – Port of Albany

- Nation's First Offshore Wind Tower Manufacturing Facility
- Transition Pieces
- Jobs 550
- Capital Investment \$350 million











Economic Impact – Port of Coeymans

- Advanced Foundation Components
- Largest Supply Chain Contract Award \$87 million
- Jobs 115 at Port of Coeymans / 230 in Upstate









CEG's Offshore Wind Playbook

Developing an Enabled Region

- Attraction of Component Manufacturers
- Supply Chain Development
- Workforce Development
 - \$1 million workforce fund through Ørsted
- Coalition Building
- Learning from the Experts
 - OSW Virtual Summit
 - OSW Tour with the Danish Consulate

Workforce Partnerships

HVCC, MAPP, BOCES



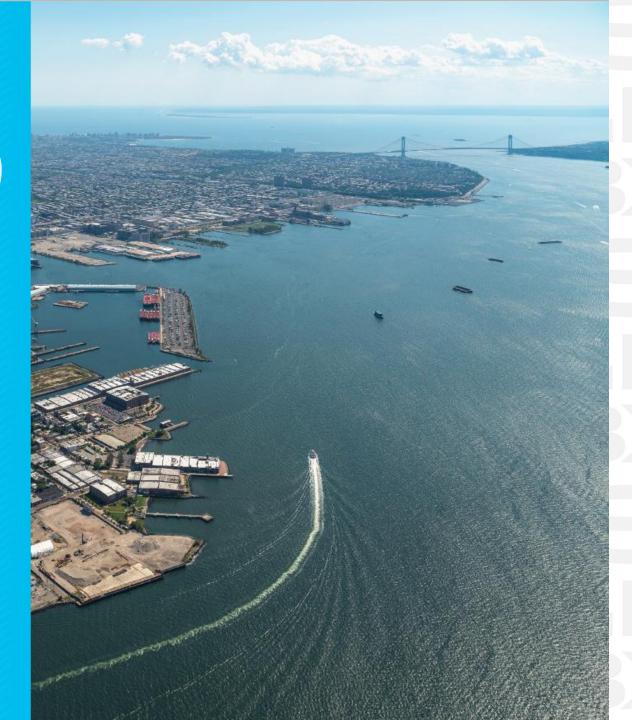


OFFSHORE WIND NYCEDC

NYSERDA Meet the Experts Series

November 10, 2021

Powered by **EDC**



New York City Economic Development Corporation

Who We Are

NYCEDC mission is to build strong neighborhoods and grow good jobs across the five boroughs.

What We Do

- Strengthen communities
- Build a sustainable city
- Develop talent and workforce
- Spark innovation

Asset Management •

EDC manages 65M SQ FT of diverse real estate assets

- Maritime (PortNYC), Office, Industrial, Retail, Public Markets, Transportation, Infrastructure, and Arts, Culture, and Entertainment
- Leasing strategy seeks to support local freight and workforce policies



https://edc.nyc/program/offshore-wind-nyc



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New York Harbor

The Five Boroughs

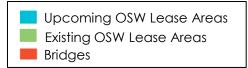
Staten Island
North Shore
West Shore
South Shore
Brooklyn
Red Hook
Sunset Park
Manhattan
Bronx
Queens

NY Harbor distance to Empire Wind Lease Area

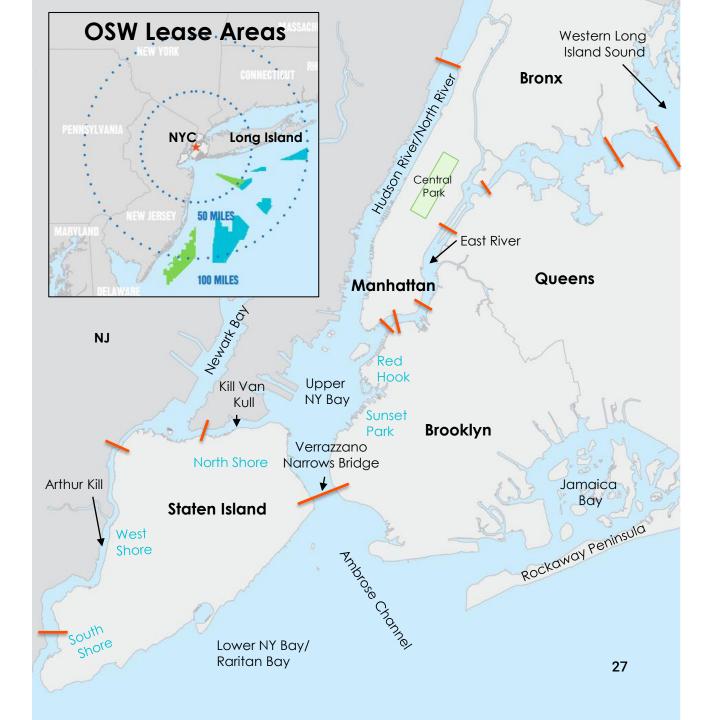
Closest turbine is <u>15 miles/24 Km</u> Closest harbor to new leases

The Hudson River by Water

145 miles/233 Km to Albany130 miles/48 Km to Coeymans







THE PLAN

15 Years \$191+ Million 3 Core Strategies



Sites and Infrastructure

Developing best-in-class infrastructure that will support the construction and operation of 12 GW of offshore wind



Businesses and Workforce

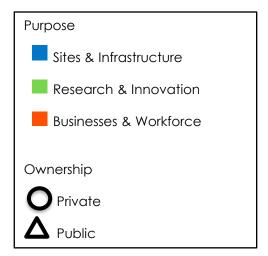
Preparing local workers and businesses to seize upon the opportunities that will be created by infrastructure investments

Research and Innovation

Promoting innovation in offshore wind to ensure that new technologies and approaches are created in New York City



Local Assets







South Brooklyn Marine Terminal (SBMT)

Site Overview: ~66-acre maritime facility with more than 7,000 linear ft of tie-up space in Sunset Park, Brooklyn

Project Update: Sublease signed with Sustainable South Brooklyn Marine Terminal (SSBMT) in 2019 for a term through 2054. SSBMT actively working to activate the terminal and attract OSW tenants among other maritime activity

Funding: City has invested over \$115M to reactivate SBMT with more investment planned in collaboration with NY State, SSBMT, and Equinor

Lead Contact: Mike Stamatis, managing partner at SSBMT

Limiting Air Draft Restriction Verrazano- Narrows Bridge:	60m (198 ft.) for the center 610m (2000 ft.) 65.5m (215 ft.) maximum at the centerline
Intermodal Connections	Adjacent to Interstate I-278 New on-dock rail facility
Surrounding Land Use	Industrial, commercial, and parkland







Contact: Mike Stamatis <u>mstamatis@redhookterminals.com</u>

NYC is investing in Research & Innovation for OSW

"Research and innovation is critical to the U.S. offshore wind development. NYCEDC's contributions will result in a broad base, diversified industry in NYC."

Carrie Cullen Hitt
Executive Director,
National Offshore Wind Research
and Development Consortium





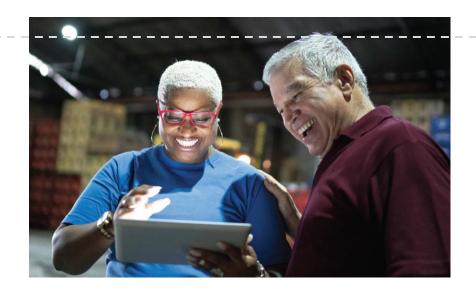
NYC is preparing local businesses for OSW opportunity

MWBE Capacity Building Program

- Creating demand through 30% MWBE target at SBMT
- Providing education, networking & resource support for businesses with an interest in NYC waterfront and OSW industry
- Launching 2022

Manufacturing

- Providing industry
 education, networking,
 self-certification and
 compliance
- Providing access to capital for machinery & equipment





NYC is investing in the OSW workforce pipeline

Ensuring exposure and seeding interest in OSW



Investing in training for OSW & related fields



Supporting
New
Yorkers in
securing
jobs in OSW



Helping
New
Yorkers
advance in
OSW jobs















LABOR LEADING ON CLIMATE

Advancing a Pro-Worker Pro-Climate Agenda



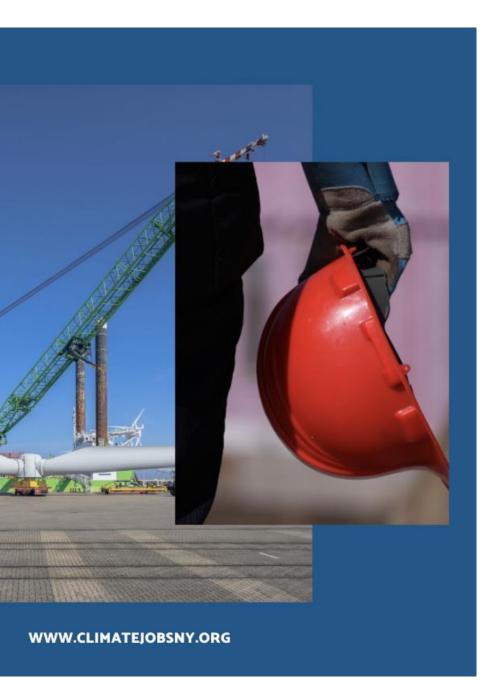






Climate Jobs NY is a growing statewide labor coalition representing 2.6 million New Yorkers united in advancing pro-worker and pro-climate policies.

We are building alliances, educating our members, and demonstrating that we do not have to choose between a healthy planet and good jobs. We must have climate jobs.





WHY UNION JOBS?

- Treat workers with respect and dignity
- Raise the standard of living for ALL working people
- Power in collective bargaining
- Safer working conditions and benefits
- Premier Apprenticeship and Training Programs



New York is Already Ahead!

- Legislative mandate for 70 percent renewable electricity by 2030
- Project Labor Agreements and prevailing wage for construction of renewable energy projects
- Labor Peace Agreements for operations and maintenance work
- Buy American provisions for iron and steel
- Incentives to manufacture renewable energy equipment and supplies in New York

SPOTLIGHT ON NY OFFSHORE WIND PROJECTS

New York's nation-leading clean energy goals

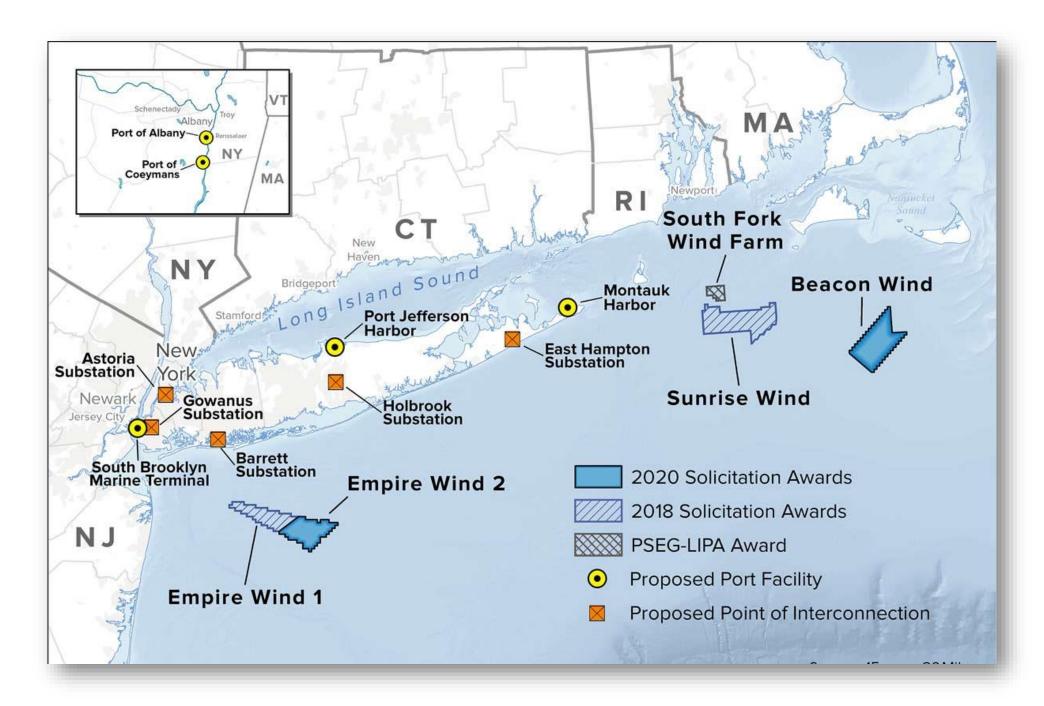


What This Means For Working People

- 9GW by 2035 = 10,000 jobs
- Power over 6 million homes in NYS
- 2020 solicitation
 - Invest approximately \$730 million in combined private and public funds in longterm port facilities and cutting-edge technologies, including the nation's first offshore wind tower manufacturing plant at the Port of Albany.
 - Support more than 6,800 jobs in project development, component manufacturing, installation, and operations and maintenance.
- Deliver economic benefits to disadvantaged communities and support the responsible retirement of aging fossil-fuel power plants near key environmental justice communities.
- Biden Administration's 30GW by 2030









Developing & Permitting



2

Assembly,

3

Construction, & Installation

OTHER JOBS: Laborers, Electricians **Crane Operators Dock Workers** Iron Workers Line Workers Painters, Pile Drivers Plumbers, Welders Assemblers, Engineers 4

Operations & Maintenance



OTHER JOBS: Administrative Staff Engineers Plant Managers **Support Vessel Crew** Wind Turbine Technician



OTHER JOBS: **Attorneys** Engineers Financial Analysts Permitting Specialists Scientists

Stages of Offshore Wind Development











Contact:

Mariah Dignan, Long Island Organizer, Climate Jobs NY mdignan@climatejobsny.org

646-708-5474

Coming Soon:

Visit wind.ny.gov to register



