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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New York City Economic Development Corporation

Mariah Dignan
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

NEW YORK’S CLEAN ENERGY

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
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
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
Scoring Criteria:

• Project Viability: 10%
• NY Economic Benefits: 20%
• Price: 70%
• 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

Offshore Wind Project Pipeline

Locations of U.S. Atlantic Coast Offshore Wind Pipeline Activity and Call Areas as of July 2020

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 9,314 MW, Massachusetts 5,604 MW, Connecticut 2,108 MW, Rhode Island 1,000 MW, Maryland 1,568 MW, Virginia 5,200 MW

Source: Supply Chain Contracting Forecast for U.S. Offshore Wind Power, 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
NYCEDC mission is to build strong neighborhoods and grow good jobs across the five boroughs.

Who We Are

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
New York City Economic Development Corporation

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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 15 miles/24 Km
Closest harbor to new leases

The Hudson River by Water

145 miles/233 Km to Albany
130 miles/48 Km to Coeymans

Legend:
- Upcoming OSW Lease Areas
- Existing OSW Lease Areas
- Bridges
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

Purpose

- Sites & Infrastructure
- Research & Innovation
- Businesses & Workforce

Ownership

- Private
- Public

1. D’Onofrio
2. McAllister
3. May’s Shipyard
4. Kirby Offshore Marine
5. Great Lakes Dredge
6. Miller’s Launch West
7. Sterling Marine
8. Ferry Street
9. Reinauer/Windserve
10. Caddell Drydock

11. Governors Island
12. Center for Climate Solutions
13. Harbor School

14. GMD Shipyard
15. Building 293
16. New Lab
17. Pier K
18. Pier J

19. Miller’s Launch
20. DockNYC - Pier I
21. DockNYC - Homeport Pier
22. Reynolds Shipyards

23. NYC College of Technology
24. Brooklyn Piers 8, 9A, 9B
25. Atlantic Basin
26. Erie Basin/Hughes Bros/Reinauer
27. GGB Terminal
28. DockNYC - 21st Street Basin
29. 25th St Pier – US Concrete

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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

<table>
<thead>
<tr>
<th>Limiting Air Draft Restriction</th>
<th>60m (198 ft.) for the center 610m (2000 ft.) 65.5m (215 ft.) maximum at the centerline</th>
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<tbody>
<tr>
<td>Verrazano-Narrows Bridge:</td>
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<tr>
<td>Intermodal Connections</td>
<td>Adjacent to Interstate I-278 New on-dock rail facility</td>
</tr>
<tr>
<td>Surrounding Land Use</td>
<td>Industrial, commercial, and parkland</td>
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**Contact:** Mike Stamatis
mstamatis@redhookterminals.com
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

OSW community outreach center in South Brooklyn
CUNY infrastructure for training & education on OSW
HireNYC recruitment program & prioritization of local hiring
NYC DOE Professional Development Day
Maritime & OSW Career Fairs
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 long-term 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
Stages of Offshore Wind Development

1. Developing & Permitting
   - OTHER JOBS: Attorneys
   - Engineers
   - Financial Analysts
   - Permitting Specialists
   - Scientists

2. Manufacturing
   - OTHER JOBS: Assemblers
   - Engineers
   - Technicians
   - Welders
   - Administrative Staff

3. Assembly, 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
Contact:
Mariah Dignan, Long Island Organizer, Climate Jobs NY
mdignan@climatejobsny.org
646-708-5474
Coming Soon:
Visit wind.ny.gov to register

We want your feedback! Send suggestions for future webinar topics to offshorewind@nyserda.ny.gov.