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KEYNOTE:

PETER KNORR

DIRECTOR OF PORT OPERATIONS
NJEDA AND THE NJ WIND PORT PROJECT

AND Q&A WITH
JOHN KUEHNE, LEAD COUNSEL
FOR THE PORT PROJECT

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NJEDA

New Jersey's Offshore Wind Economy and the NJ Wind Port

October 30, 2024

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OCEANTIC NETWORK
TX
LA
OR
CA
PROPOSED
LEASED
FINANCIAL MECHANISM SECURED
OPERATING
1 Maine Aqua Ventus I (Diamond Offshore Wind) (12 MW)
2 Revolution Wind (Orsted / GIP) (704 MW)
3 Block Island Wind Farm (Orsted) (30 MW)
4 South Fork Wind Farm (Orsted / GIP) (132 MW)
5 Sunrise Wind (Orsted) (924 MW)
6 Bay State Wind (Orsted)
7 Vineyard Wind 1 (GIP / Avangrid) (800 MW)
8 New England Wind 1 (Avangrid) (791 MW)
9 New England Wind 2 (Avangrid)
10 Beacon Wind (bp)
11 SouthCoast Wind (Ocean Winds) (1,287 MW)
12 Vineyard Wind 2 (Vineyard Offshore) (800 MW)
13 Empire Wind 1 & 2 (Equinor) (810 MW)
14 Excelsior Wind (Vineyard Offshore)
15 Bluepoint Wind (Ocean Winds / GIP)
16 Attentive Energy One & Two (TotalEnergies Renewables / Rise Light & Power / Corio Generation)
17 Community Offshore Wind (RWE / National Grid)
18 OCS-A 0541 (Atlantic Shores)
19 Leading Light Wind (Invenergy / energyRe) (2,400 MW)
20 Atlantic Shores Offshore Wind (EDF / Shell) (1,510 MW)
21 Ocean Wind 1 & 2 (Orsted)
22 Skipjack Wind Farm (Orsted)
23 MarWin / Momentum Wind (US Wind) (270/808.5 MW)
24 OCS-A 0557 (Equinor)
25 OCS-B 0558 (Dominion Energy)
26 Coastal Virginia OSW - Commercial (Dominion Energy / Stonepeak) (2,587 MW)
27 Coastal Virginia OSW - Pilot (Dominion Energy) (12 MW)
28 Coastal Virginia OSW - South (Dominion Energy)
29 Kitty Hawk Wind (Avangrid)
30 TotalEnergies Carolina Long Bay (TotalEnergies Renewables)
31 OCS-A 0546 (Duke Energy Renewables Wind)
32 Oregon WEAs
33 Canopy Offshore Wind Farm (RWE)
34 OCS-P 0562 (Vineyard Offshore)
35 Atlas Wind (Equinor)
36 Golden State Wind (Ocean Winds / CPPIB)
37 Even Keel Wind (Invenergy)
38 OCS-G 37334 (RWE)
39 Gulf of Mexico WEAs
40 Cajun Winds (Steelhead Americas (Vestas))
41 DOW LA (Diamond Offshore Wind)
42 Gulf of Maine WEAs
43 Maine Floating Offshore Wind Research Array (Diamond Offshore Wind)
44 CADEMO (Floventis)
OCEANTIC NETWORK
U.S. OFFSHORE WIND MARKET
Source: Oceantic Network Market Dashboard
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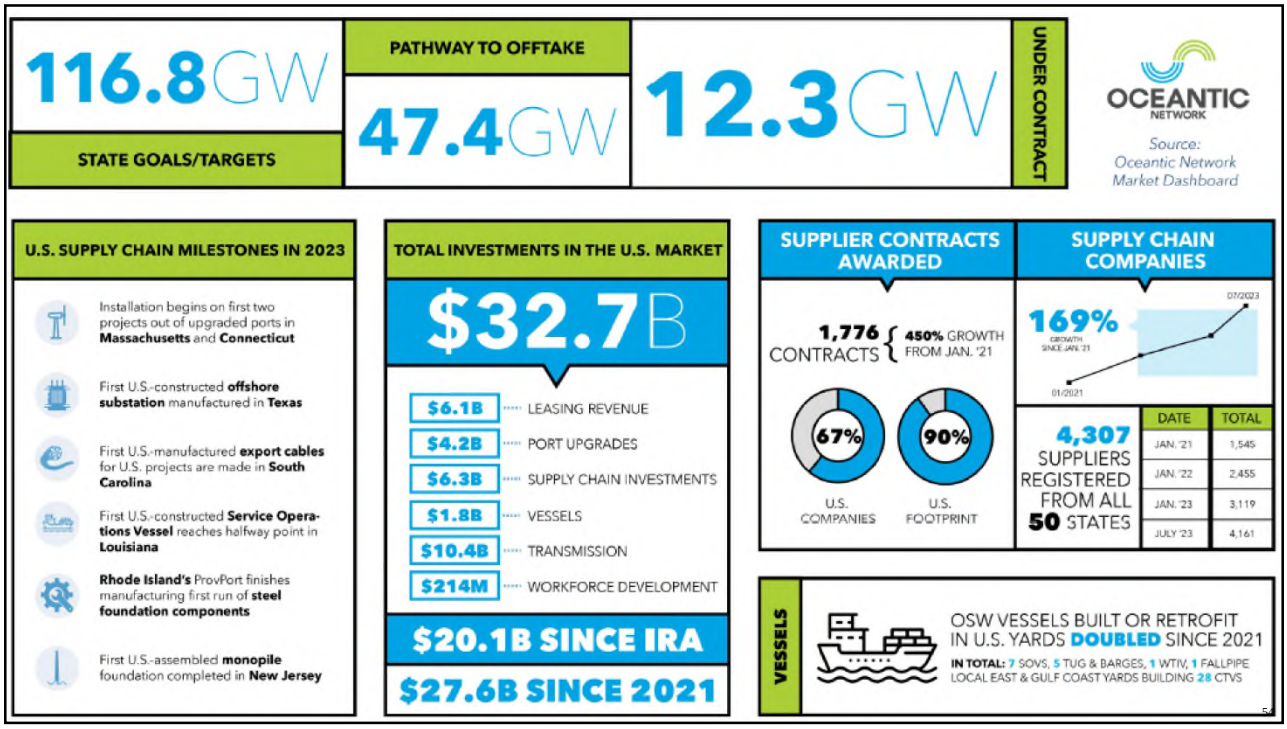
116.8GW
STATE GOALS/TARGETS
PATHWAY TO OFFTAKE
47.4GW
12.3GW
UNDER CONTRACT
OCEANTIC NETWORK
Source: Oceantic Network Market Dashboard
U.S. SUPPLY CHAIN MILESTONES IN 2023
Installation begins on first two projects out of upgraded ports in Massachusetts and Connecticut
First U.S.-constructed offshore substation manufactured in Texas
First U.S.-manufactured export cables for U.S. projects are made in South Carolina
First U.S.-constructed Service Operations Vessel reaches halfway point in Louisiana
Rhode Island's ProvPort finishes manufacturing first run of steel foundation components
First U.S.-assembled monopile foundation completed in New Jersey
TOTAL INVESTMENTS IN THE U.S. MARKET
$32.7B
$6.1B LEASING REVENUE
$4.2B PORT UPGRADES
$6.3B SUPPLY CHAIN INVESTMENTS
$1.8B VESSELS
$10.4B TRANSMISSION
$214M WORKFORCE DEVELOPMENT
$20.1B SINCE IRA
$27.6B SINCE 2021
SUPPLIER CONTRACTS AWARDED
1,776 CONTRACTS
450% GROWTH FROM JAN. '21
67%
U.S. COMPANIES
90%
U.S. FOOTPRINT
SUPPLY CHAIN COMPANIES
169%
GROWTH SINCE JAN '21
07/2023
01/2021
4,307 SUPPLIERS REGISTERED FROM ALL 50 STATES
DATE
TOTAL
JAN. '21 1,545
JAN. '22 2,455
JAN. '23 3,119
JULY '23 4,161
VESSELS
OSW VESSELS BUILT OR RETROFIT IN U.S. YARDS DOUBLED SINCE 2021
IN TOTAL: 7 SOVS, 5 TUG & BARGES, 1 WTIV, 1 FALLPIPE
LOCAL EAST & GULF COAST YARDS BUILDING 28 CTVS
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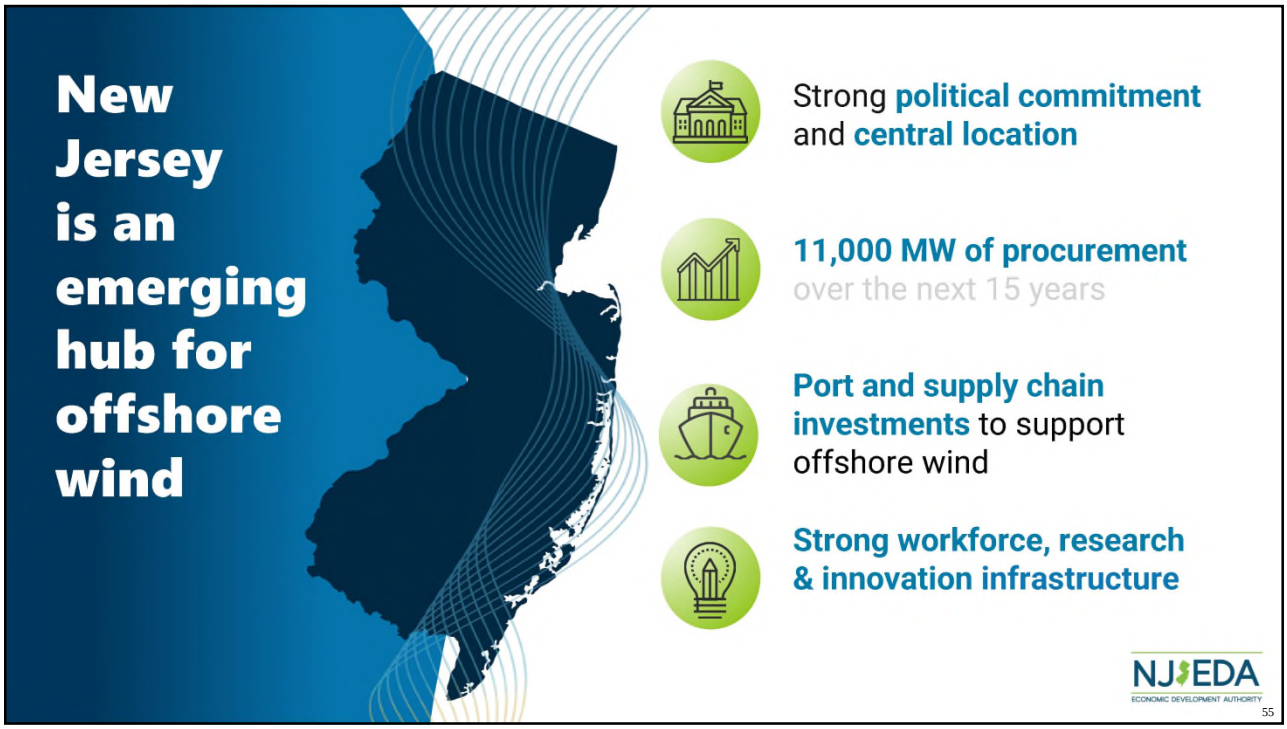
New Jersey is an emerging hub for offshore wind
Strong political commitment and central location
11,000 MW of procurement over the next 15 years
Port and supply chain investments to support offshore wind
Strong workforce, research & innovation infrastructure
NJ EDA
ECONOMIC DEVELOPMENT AUTHORITY
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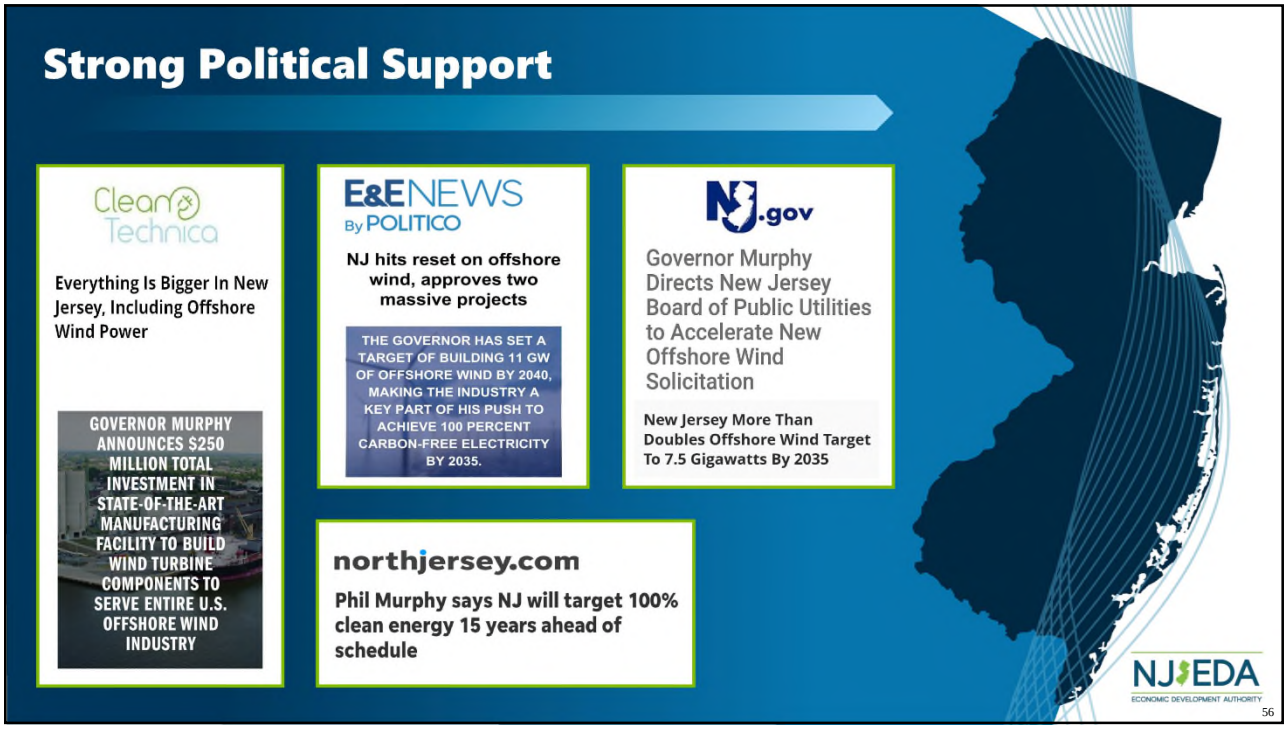
Strong Political Support
Clean Technica
Everything Is Bigger In New Jersey, Including Offshore Wind Power
GOVERNOR MURPHY ANNOUNCES $250 MILLION TOTAL INVESTMENT IN STATE-OF-THE-ART MANUFACTURING FACILITY TO BUILD WIND TURBINE COMPONENTS TO SERVE ENTIRE U.S. OFFSHORE WIND INDUSTRY
E&E NEWS By POLITICO
NJ hits reset on offshore wind, approves two massive projects
THE GOVERNOR HAS SET A TARGET OF BUILDING 11 GW OF OFFSHORE WIND BY 2040, MAKING THE INDUSTRY A KEY PART OF HIS PUSH TO ACHIEVE 100 PERCENT CARBON-FREE ELECTRICITY BY 2035.
NJ.gov
Governor Murphy Directs New Jersey Board of Public Utilities to Accelerate New Offshore Wind Solicitation
New Jersey More Than Doubles Offshore Wind Target To 7.5 Gigawatts By 2035
northjersey.com
Phil Murphy says NJ will target 100% clean energy 15 years ahead of schedule
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New Jersey has a clear procurement timeline for 11,000 MW

Project	Capacity Target/Award (MW)	Issue Date	Submittal Date	Award Date	Estimated COD
Atlantic Shores	1,510	Q3 2020	Q4 2020	Q2 2021	2028
Attentive 2	1,342	Q1 2023	Q3 2023	Q1 2024	2031
Leading Light Wind	2,400				2031-32
Solicitation 4	1,200 – 4,000	Q2 2024	Q3 2024	Q4 2024	2032
Solicitation 5	1,200 – 4,000	Q2 2025	Q3 2025	Q4 2025	2034
Solicitation 6	1,200 – 4,000	Q2 2027	Q3 2027	Q1 2028	2035
Solicitation 7	1,200 – 4,000	Q2 2029	Q3 2029	Q1 2030	2037

NJ EDA ECONOMIC DEVELOPMENT AUTHORITY

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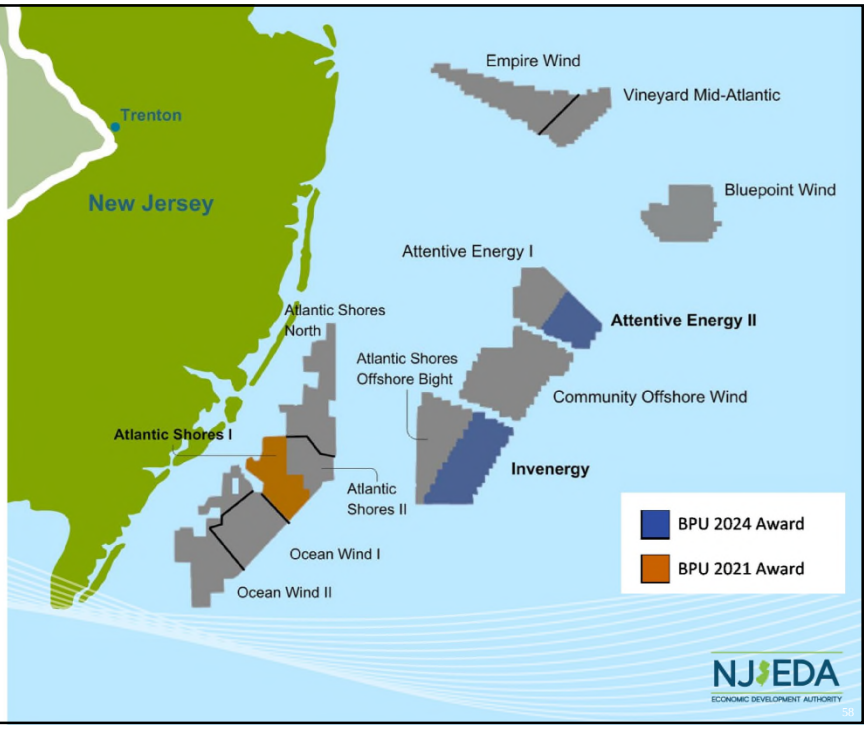
Newly Awarded Projects

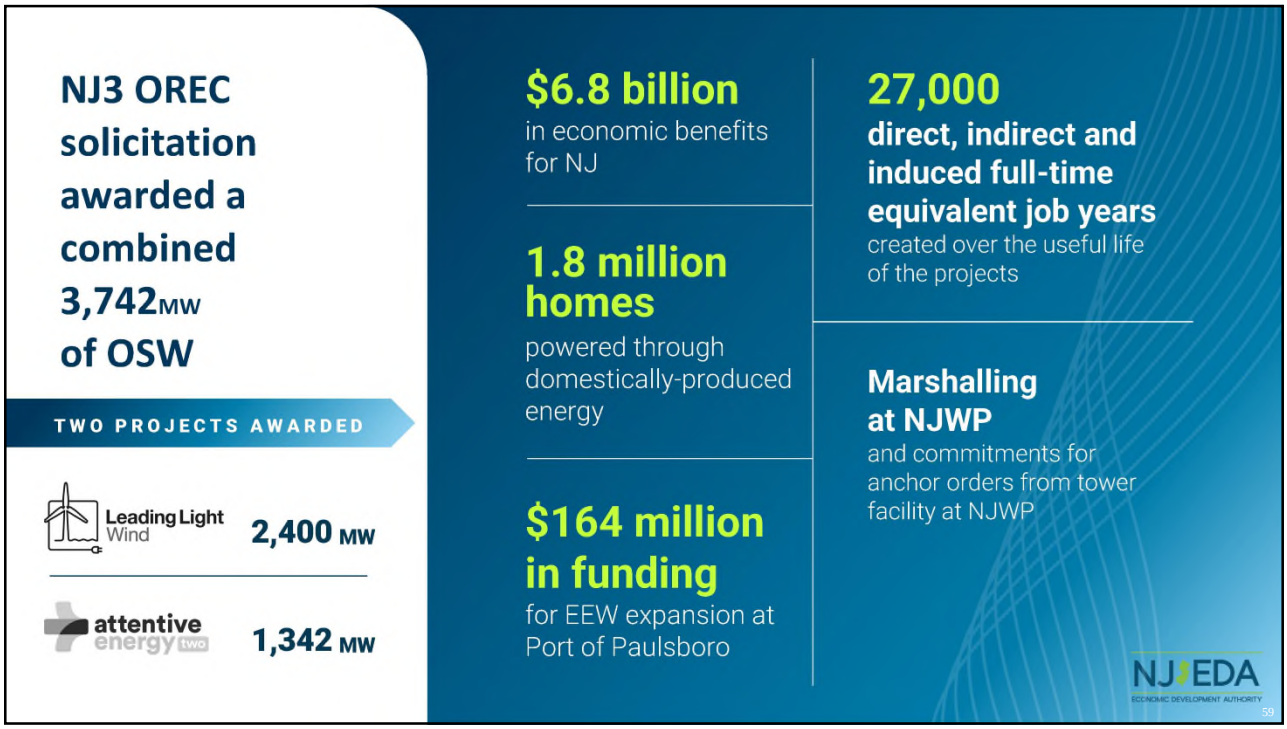
attentive energy two

Leading Light Wind

Invenergy energyRe



NJ EDA ECONOMIC DEVELOPMENT AUTHORITY


NJ3 OREC solicitation awarded a combined 3,742MW of OSW
TWO PROJECTS AWARDED
Leading Light Wind
2,400 MW
attentive energy two
1,342 MW
$6.8 billion
in economic benefits for NJ
1.8 million homes
powered through domestically-produced energy
$164 million in funding
for EEW expansion at Port of Paulsboro
27,000
direct, indirect and induced full-time equivalent job years
created over the useful life of the projects
Marshalling at NJWP
and commitments for anchor orders from tower facility at NJWP
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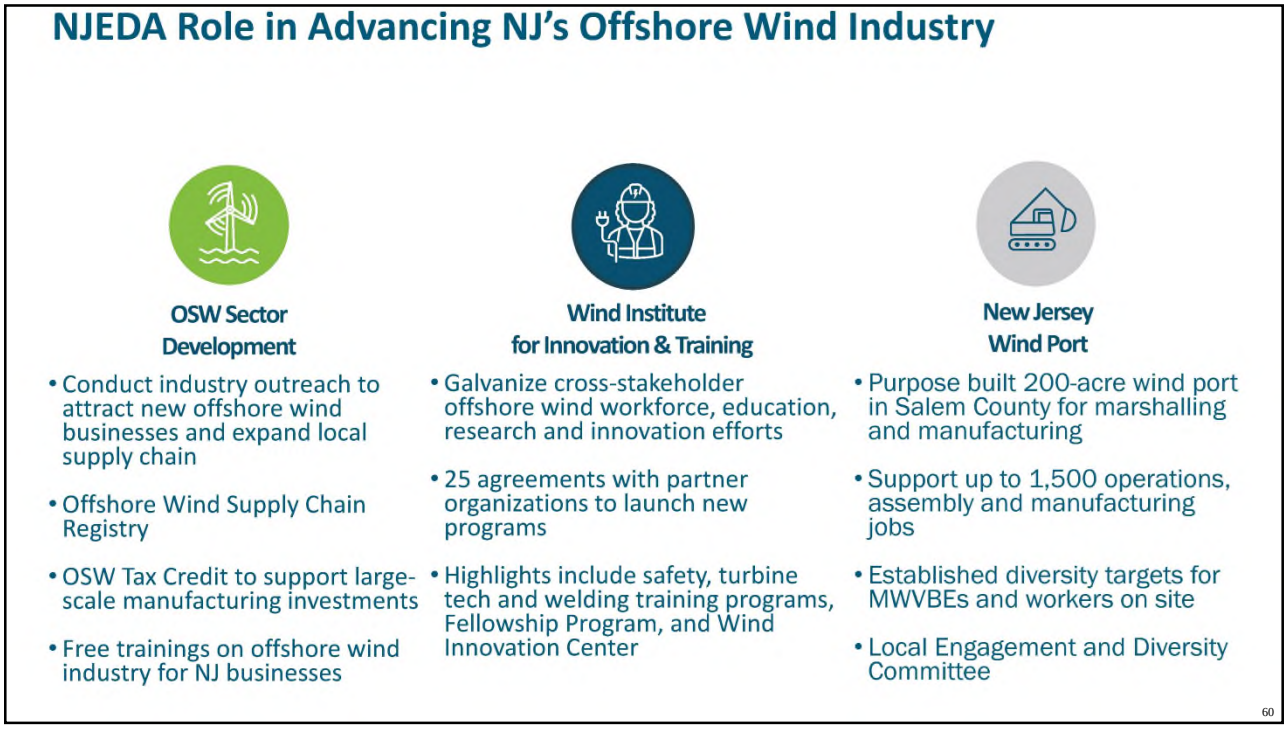
NJEDA Role in Advancing NJ's Offshore Wind Industry
OSW Sector Development
• Conduct industry outreach to attract new offshore wind businesses and expand local supply chain
• Offshore Wind Supply Chain Registry
• OSW Tax Credit to support large-scale manufacturing investments
• Free trainings on offshore wind industry for NJ businesses
Wind Institute for Innovation & Training
• Galvanize cross-stakeholder offshore wind workforce, education, research and innovation efforts
• 25 agreements with partner organizations to launch new programs
• Highlights include safety, turbine tech and welding training programs, Fellowship Program, and Wind Innovation Center
New Jersey Wind Port
• Purpose built 200-acre wind port in Salem County for marshalling and manufacturing
• Support up to 1,500 operations, assembly and manufacturing jobs
• Established diversity targets for MWVBEs and workers on site
• Local Engagement and Diversity Committee
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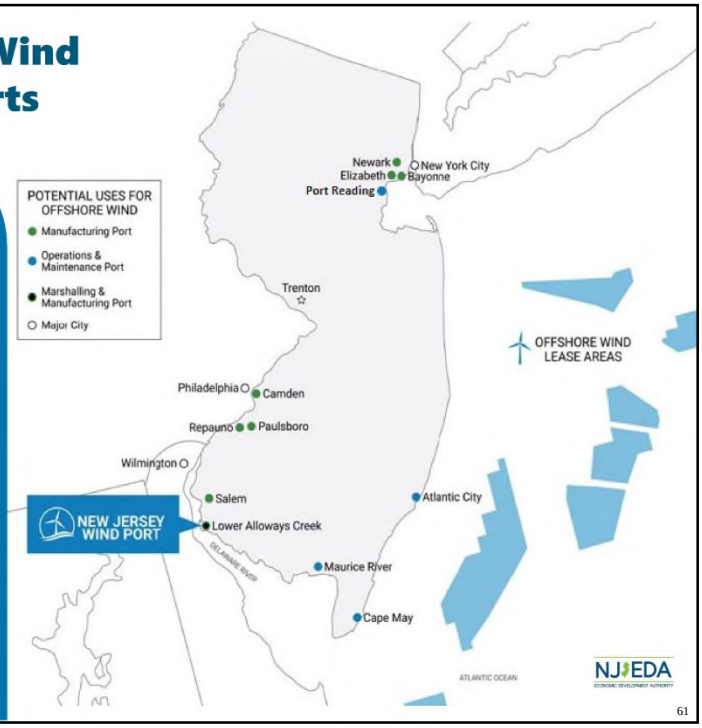
NJ is Growing the Offshore Wind Supply Chain Through its Ports

Manufacturing
EEW will manufacture **monopiles** at **Port of Paulsboro.** Ther are plans to assemble/manufacture **nacelles and towers** at **NJ Wind Port** with additional space for future facilities

Marshalling
Atlantic Shores, Attentive, and Leading Light plan to marshal their projects at **NJ Wind Port**

Operations & Maintenance
O&M hubs under development in **Atlantic City and Port Reading**



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Offshore Wind Component Manufacturing

EEW GROUP

One of the only operational domestic Tier 1 suppliers in the country

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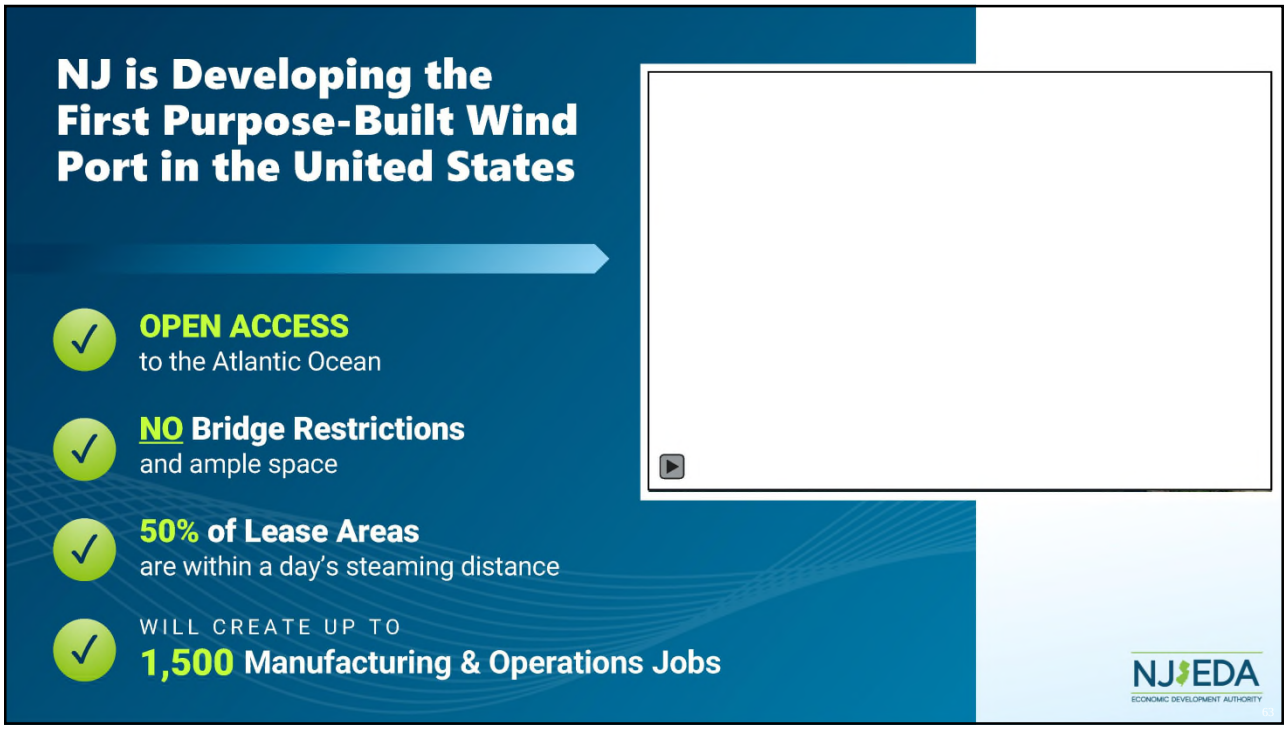
NJ is Developing the First Purpose-Built Wind Port in the United States
OPEN ACCESS to the Atlantic Ocean
NO Bridge Restrictions and ample space
50% of Lease Areas are within a day's steaming distance
WILL CREATE UP TO 1,500 Manufacturing & Operations Jobs
NJEDA
ECONOMIC DEVELOPMENT AUTHORITY


NEW JERSEY WIND PORT
NJEDA
ECONOMIC DEVELOPMENT AUTHORITY
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Project Status - Phase 1A (Parcel A and Main Subdivision)

Parcel A

- Construction of 30 acre marshaling yard 100% complete as of May 2024
- Live load capacity of 6,200 psf. (wharf) and 3,000 psf. (upland)

Main Substation

- Construction of 12.8-mile 69kV transmission line to be completed by end of 2024
- From the Substation, electricity is transformed down to 13.8kV and routed throughout Port

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Active Construction – Parcel B1

- B1 West Embankment construction to be completed in September 2024.
- Earthworks is first step in preparing for Terminal Construction
- Fill from Parcel C-1 and CDF2 utilized to construct embankment.
  - Estimated total of ~1 million Cubic Yards of Embankment Material
- Test Pile Program Completed in for Parcel B1
- Additional Wharf needed to support BPU NJ3 Awards

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Active Construction – CDF2 Borrow Area

- Borrow excavation site owned by USACE known as CDF2 (CDF = Confined Disposal Facility).
- Strong Partnering Efforts between NJEDA & USACE to make this effort possible.
- NJEDA has agreement with USACE to extract up to 600,000 CY of granular fill from CDF2.
- NJEDA creating capacity opens opportunities for future NJWP use
  - 217(b)
  - 204(f)

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ATTAINING ZERO EMISSION & ECONOMIC GOALS WILL REQUIRE FIT-FOR-PURPOSE PORT CAPACITY

	Marshalling	Manufacturing	O&M	Co-located Hub
Use period	Short-term/project based (<2 years)	Long-term (15+ years)	Long-term (25+ years)	Mix of short and long term
Air-draft	Unrestricted	Standard	Standard	Unrestricted
Dredge depth (ft)	40-45	35-45	<20	40-45
Optimal size (acres)	50-100	Facility dependent (25 nacelle – 80 blades)	5-10	>200
Minimum wharf length (ft)	1,300	650	Standard	>2,000 (assuming min of 3 berths)
Weight bearing (psf)	>6k (wharf) 3k (uplands)	3k	Standard	>6k (wharf) 3k (uplands)
Distance to wind farm (nm)	Somewhat distance sensitive <150	Not distance sensitive	Highly distance sensitive if CTV (<40) Less sensitive if SOV	Distance sensitive (see marshalling)
Improvement/ capital cost ($m)	>400	>250	<100	>750

- Marshalling requires unrestricted air-draft and extreme weight bearing
- Manufacturing ports require larger acreages and heavy weight bearing
- O&M ports are highly distance sensitive
- Co-located hubs have significant requirements including large acreage and extensive wharf infrastructure

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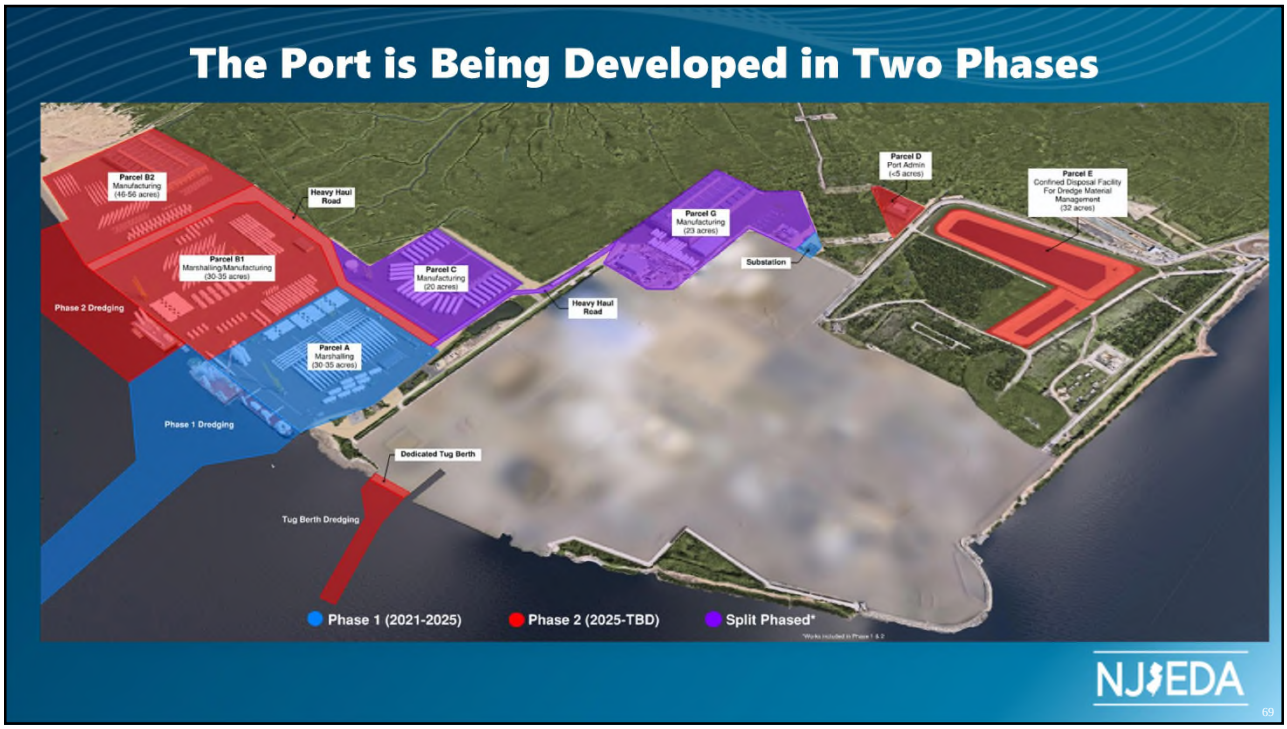
The Port is Being Developed in Two Phases
Parcel B2
Manufacturing
(46-56 acres)
Heavy Haul Road
Parcel B1
Marshaling/Manufacturing
(30-35 acres)
Parcel C
Manufacturing
(20 acres)
Parcel G
Manufacturing
(23 acres)
Parcel D
Port Admin
(<5 acres)
Parcel E
Confined Disposal Facility
For Dredge Material
Management
(32 acres)
Substation
Heavy Haul Road
Phase 2 Dredging
Parcel A
Marshalling
(30-35 acres)
Phase 1 Dredging
Dedicated Tug Berth
Tug Berth Dredging
Phase 1 (2021-2025)
Phase 2 (2025-TBD)
Split Phased*
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New Jersey Wind Port Construction Commitments
New Jersey Wind Port project setting a new standard for minority, veteran, and women-owned business inclusion
AECOM-Tishman signed a PLA with South Jersey Building and Construction Trades Council
Diversity set-aside goal in CM agreement:
15% MWVBE
25% SBE
3% DVBE
Advisory Committee to help fortify commitment to inclusion
Non-union businesses will need to sign letter of assent to participate
Affirmative action goals for workers in construction:
18% MINORITY WORKERS
25% FEMALE WORKERS
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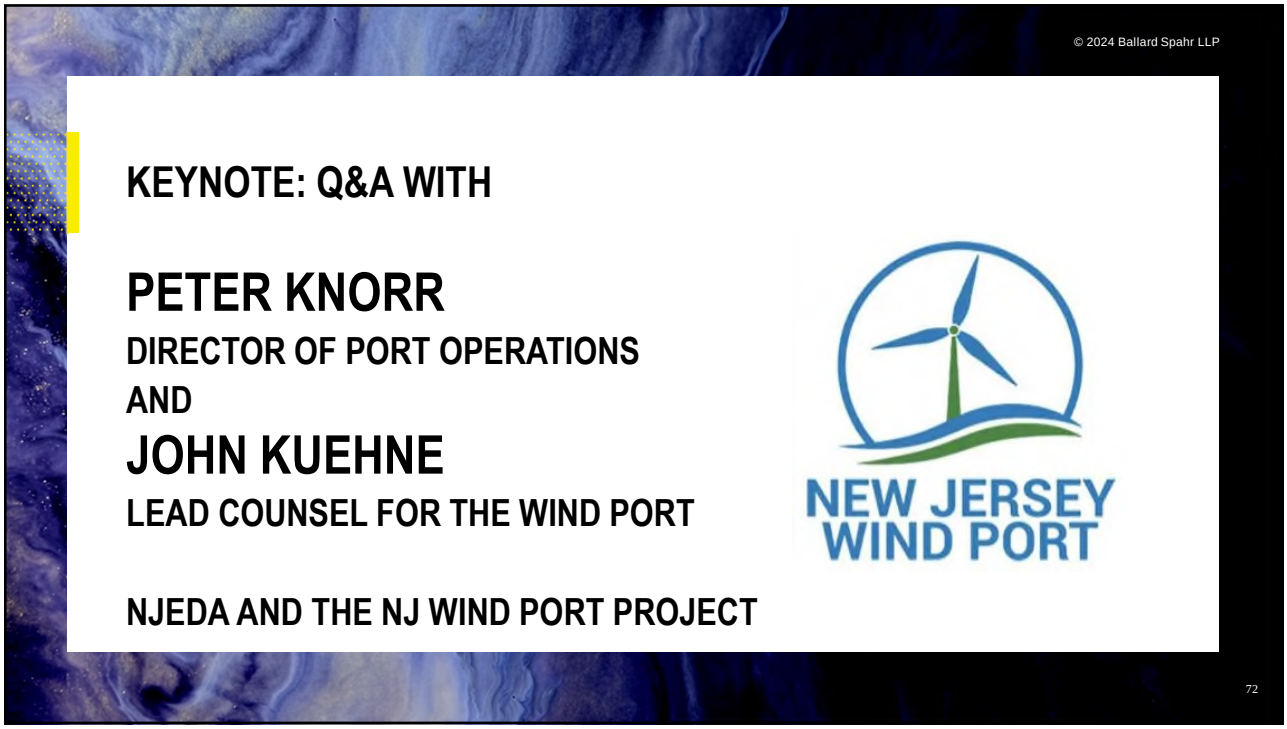
Thank you!
Visit our website:
njwindport.njeda.gov
Get in touch directly:
pete.knorr@njeda.gov
NEW JERSEY
OFFSHORE WIND
NJEDA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