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U.S. Market Overview & Insights

Business Network for Offshore Wind



Business Network for Offshore Wind

- 1 Focus on developing US offshore wind industry and its supply chain
- 2 Not-for-Profit, Membership-Based
- 3 Provide: Information, Education, Introductions



U.S. OSW Structure



BUSINESS NETWORK FOR OFFSHORE WIND

STATES

Request call areas, enact policy that drives the market, enforce state and local regulations U.S. BOEM / U.S. BSEE

Siting, leasing, permitting and approval of plans, regulate OSW projects

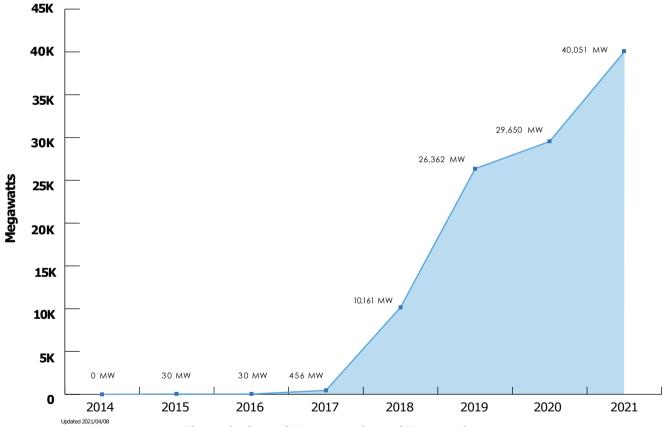
PRIVATE DEVELOPERS / LEASEES

Acquire lease rights and develop projects

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State Commitments to OSW



The trends of sum of Megawatts and sum of Megawatts for year

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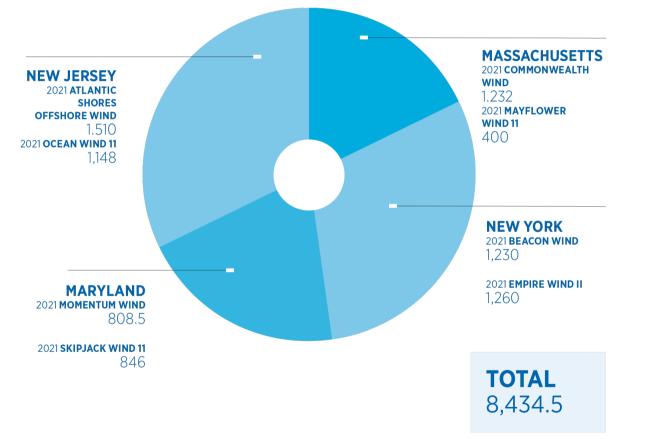
Offtake Pathways



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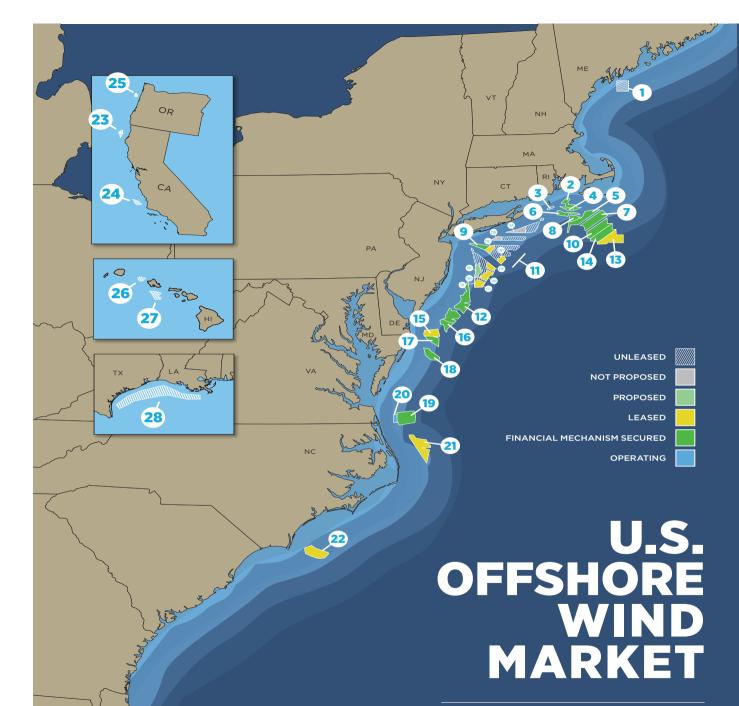


State Procurements During 2021



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U.S. OSW LEASE AREAS

| 1 Maine Aqua Ventus I (New England Aqua Ventus) [11 M | |
|--|--|
| 2 Revolution Wind (Ørsted / Eversource) [704 MW] | |
| 3 Block Island Wind Farm (Ørsted) [30 MW] | |
| 4 South Fork Wind Farm (Ørsted / Eversource) [132 MW] | |
| 5 Bay State Wind | |
| 6 OCS-A 0486 | |
| 7 Vineyard W. / Park City W. / Commonwealth W. | |
| (CIP / Avangrid) [800/804/1,232 MW] | |
| 8 Sunrise Wind (Ørsted / Eversource) [880 MW] | |
| 9 Empire Wind 1 & 2 (Equinor / bp) [816/1,260 MW] | |
| 🔟 Beacon Wind (Equinor / bp) [1,230 MW] | |
| 1) NY Bight Call Area | |
| • A (Fairways N) • B (Fairways S) • C (OCS-A 544) • D (OCS-A 537) | |
| • E (OCS-A 543) • F (OCS-A 538) • G (OCS-A 540) • H (OCS-A 539) | |
| • I (OCS-A 541) • J (OCS-A 542) | |
| Atlantic Shores Offshore Wind (EDF / Shell) [1,510 MW | |
| 13 Liberty Wind (CIP / Avangrid) | |
| Mayflower Wind (EDPR / Shell) [1,204 MW] | |
| (b) Garden State offshore Energy (Ørsted) | |
| 6 Ocean Wind 1 & 2 (Ørsted / PSEG) [1,100/1,148 MW] | |
| Skipjack I / II Wind Farm (Ørsted) [120/846 MW] | |
| (B) MarWin / Momentum Wind (US Wind) [270/808.5 MW | |
| Coastal Virginia OSW - Commercial | |
| (Dominion Energy) [2,640 MW] | |
| 20 Coastal Virginia OSW - Pilot (Dominion Energy) [12 M) | |
| 2 Kitty Hawk Offshore Wind (Avangrid) | |
| 22 Carolina Long Bay | |
| 3 Humboldt Wind Energy Area | |
| 2 Morro Bay | |
| PacWave South | |
| Oahu North Call Area Oahu South Call Area | |
| Oahu South Call Area Suit of Musica 2000 | |
| 28 Gulf of Mexico OCS | |

L BUSINESS NETWORK for OFFSHORE WIND

OSW Leasing Path Forward 2021–2025





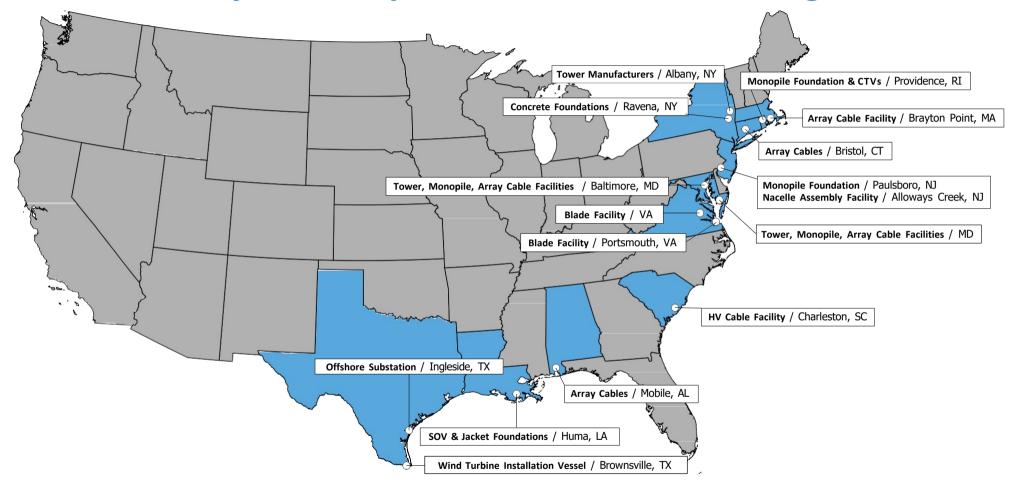
Biden Administration 2025 Goals: A Global Perspective

- 16 COPs approved by 2025, representing at least 19GW of OSW
- Currently, ~50GW deployed globally
- UK + Germany combined = 20GW

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Supply Chain Development: Major Component Manufacturing

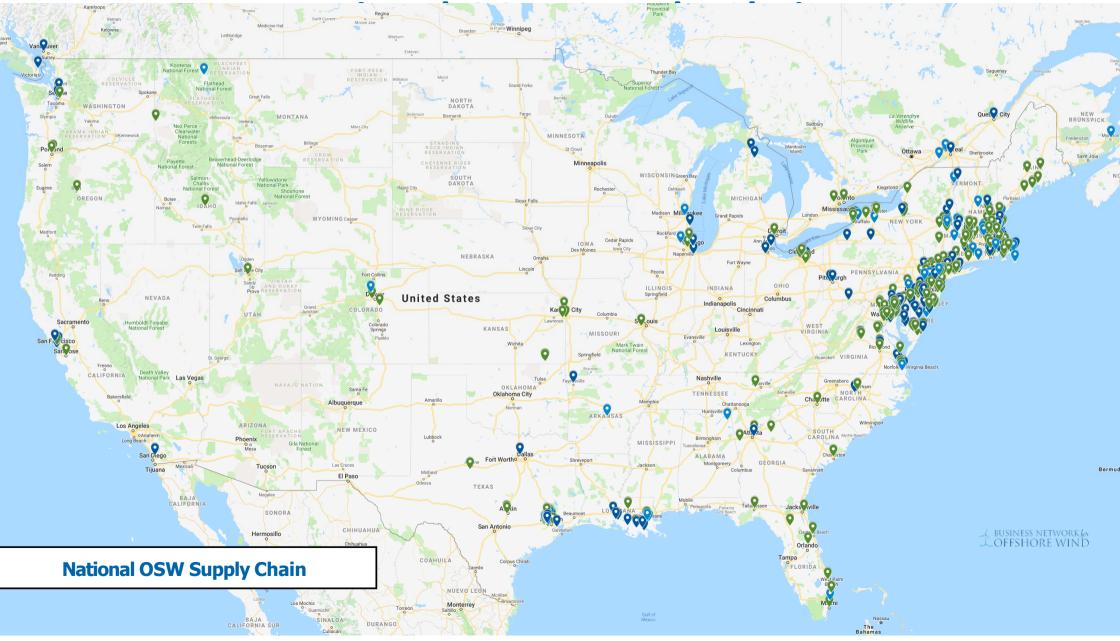


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Supply Chain Development: National Opportunities





| Port Name | State | Laydown Area (acres) | Quayside Length (m) | Number of berths | Berth Depth (m) | Channel Depth (m) | Bearing Capacity (t/m²) | Air Draft Limit (m) | Readiness Level (WTIV) | Readiness Level (Feeders) |
|--|-------|----------------------------|---------------------------|------------------------|-----------------------|-------------------------|-------------------------------|------------------------------|---|---------------------------------|
| New Bedford ⁸ | MA | 29 | 366 | 3 | 9.1 | 9.1 | 20 t/m ² | None | Berth/channel depth, and quayside length | Quayside length |
| New London State Pier ⁹ | СТ | 30 | 1244 | 4 | 12.2 | 10 | Assume > 15 | None | Channel depth | |
| South Brooklyn Marine Terminal | NY | 88 | 417 | 2 | 10.7 | 12.2 | 30 | 60 | Berth depth, quayside length and air draft | Quayside length |
| New Jersey Wind Port ¹⁰ | NJ | 70 | 854 | 4 | 11.5 | 9.88 | 29.8 | None | | |
| Tradepoint Atlantic ¹¹ | MD | 3,300 | 1,021 | 2 | 10.97 | 10.97 | | None | Berth/channel depth, bearing capacity | Bearing capacity |
| Portsmouth Marine Terminal | VA | 287 | 1,079 | 3 | 13.11 | 13.11 | Assume >15 t/m² | None | | |
| Other ports (1) | - | - | - | - | - | - | - | - | | |
| Other ports (4) | - | - | - | - | - | - | - | - | | |
| Other ports (9) | - | - | - | - | - | - | - | - | | |

| Port Name | State | Laydown Area (acres) | Quayside Length (m) | Number of berths | Berth Depth (m) | Channel Depth (m) | Bearing Capacity (t/m²) | Air- Draft Limit (m) | Readiness Level (Floating Substructure) |
|-----------------------------------|-------|----------------------------|---------------------------|------------------------|-----------------------|-------------------------|-------------------------------|-------------------------------|--|
| Port of Seattle | WA | 1,541.9 | 2,400 | 20 | 23.2 | >30 | | None | High congestion and bearing capacity |
| Astoria | OR | 20.55 | 1551 | 5 | 12.2 | 14 | | None | Laydown and bearing capacity |
| Port at Coos Bay ¹³ | OR | 1,335 | 80 | 7 | 11.28 | 11.28 | | Select areas limited | Bearing capacity and quayside length |
| Humboldt Marine Terminal | CA | 150 | 703 | 2 | 11.6 | 10.67 | Assume > 15 | None | Channel depth |
| Morro Bay | CA | | 80 | 1 | 5.5 | 5.5 | | None | Laydown area, quayside length, berth/channel depth, and bearing capacity |
| San Francisco | CA | | 870 | | 15.2 | 15 | | 67 | Laydown area, bearing capacity, and air draft |
| Oakland | CA | 1,300 | 7,800 | 185 | 15 | 15 | | 67 | Bearing capacity and air draft |
| Richmond | CA | 195 | 2,350 | 7 | 11.5 | 11.5 | | 67 | Bearing capacity and air draft |
| Benicia | CA | 645 | 1,550 | 4 | 11.5 | 11.5 | | 67 | Bearing capacity and air draft |
| Hueneme ¹⁴ | CA | 120 | 800 | 5 | 10.5 | 11 | | None | Berth depth |

Table 11. West Coast Ports Marshalling Capabilities and Assessment

OSW Market Dashboard

| SINESS NETWORK FOR OFFSHORE WI SW Market Das | PROJECT TIMELINE PROJECT DETAILS EXPLORE EXPORT PROJECT DATA USER MANUAL GIVE US FEEDBACK | | | |
|---|---|--|---|--|
| 8 ACRES LEASE AREAS | | | 0 GW КАТЕ GOALS BY 2000 \$3,753,670 В U.S. INVESTMENT | US OSW UNDER CONTRACT |
| S. PROJECTS UNDER DEVELOPMENT | | | PERMITTING | СТ |
| IOLECT LANTIC SHORES OSW (NJ) XY STATE WIND (MA) SACON WIND (NY) OCK ISLAND WIND FARM (RI) NDEMO DEMO PROJECT (CA) DMMONWEALTH WIND (MA) YOW - COMMERCIAL (VA) YOW - PILOT (VA) MPIRE WIND 1 (NY) MPIRE WIND 1 (NY) MPIRE WIND 2 (NY) NRDEN STATE OFFSHORE ENERGY (NJ) EBREAKER (OH) EDI PILOT PROJECT (CA) | DEVELOPER(S) Shell, EDF Renewables Ørsted, Eversource Equinor, BP Ørsted, Eversource CIERCO Projects Corporation Avangrid Renewables Dominion Energy Dominion Energy Equinor, BP Equinor, BP Equinor, BP Equinor, BP Equinor, BP Equinor, BP IEQUOC, Fred. Olsen Ren Ideol USA Inc. | MW STATUS 1,510 Permitting (COP) 1,230 Permitting (COP) 1,230 Operating N/A 1,232 Site Control 2,840 Parmitting (COP) 12 Operating 816 Permitting (COP) 1,260 Permitting (COP) 1,260 Permitting (COP) 2,07 Off-take AN/A | SAP IN PREPARATION 1 SUBMITTED/UNDER REVIEW 0 APPROVED 15 COP IN PREPARATION 0 SUBMITTED/UNDER REVIEW 12 APPROVED 2 U.S. OSW CONTRACTS 869 | NY 17.58 GW UNDER CONTRACT NJ MA |
| TTY HAWK (NC) ARWIN (MD) AVFLOWER WIND (MA) DMENTUM WIND (MD) SW ENGLAND AQUA VENTUS I (ME) SEAN WIND 1 (NJ) SEAN WIND 2 (NJ) RK CITY WIND (CT) EVOLUTION WIND (CT) EVOLUTION WIND (CT) EVOLUTION WIND (RI) JIPJACK WIND 1 (MD) JIPJACK WIND 2 (MD) | Avangrid Renewables US Wind Ocean Winds, Shell US Wind New England Aqua Ventus, LLC, RWE Ørsted, PSEG Ørsted, PSEG Ørsted, Eversource Ørsted, Eversource Ørsted | Permitting (COP) 270 Permitting (COP) 1204 Parmitting (COP) 808.5 Site Control 11 Off-take 1,100 Permitting (COP) 1,148 Off-take 804 Permitting (COP) 304 Parmitting (COP) 120 Parmitting (COP) 846 Site Control | IMPORTANT UPCOMING DATES 2/9/2022 GULF OF MEXICO ENVIRONMENTAL ASSESSMENT COMMENT PERIO 5/1/2022 BOEM EXPECTS TO ISSUE NOA OF OCEAN WIND DRAFT EIS 7/1/2022 NJ OSW SOLICITATION #3 - APPLICATION WINDOW OPENS 7/1/2022 OSC-A 0487 - DEADLINE FOR COP SUBMISSION 10/1/2022 NJ OSW SOLICITATION #3 - APPLICATION WINDOW CLOSES 1/1/2023 OCS-A 0487 - SITE ASSESSMENT TERM ENDS 4/1/2023 NJ OSW SOLICITATION #3 - BPU AWARDS PROJECT 4/1/2024 NJ OSW SOLICITATION #4 - APPLICATION WINDOW CLOSES 7/1/2024 NJ OSW SOLICITATION #4 - APPLICATION WINDOW CLOSES | OD CLOSES LA, FED NJ NJ RI, MA, FED NJ RI, MA, FED NJ NJ NJ |

Your ad here

Contact courtney@offshorewindus.org for details.

LOFFSHORE WIND

SupplyChainConnect Learn more at offshorewindus.org/SupplyChain

BUSINESS NETWORK FOR OFFSHORE WIND MARKET DASHBOARD

Need help? Email marketdashboard@offshorewindus.org



OSW Supply Chain Connect

SupplyChainConnect



The **Business Network for Offshore Wind Supply Chain Connect** allows companies to publicly indicate their interest and ability to supply components and services for U.S. offshore wind projects. It is used as a source for identifying potential recipients of Requests for Proposals (RFPs) as well as identifying local, small, minority-owned, women-owned, and/or veteran-owned businesses for partnership with developers and/or Tier 1 suppliers. Please be sure to complete all fields and regularly update and maintain your organization's profile.

To register, first gather the information requested to identify the products and services you can provide for offshore wind projects. You'll have 30 minutes to fill out the form before the system logs you out. Your information will be saved.

COMPANY NAME

EMAIL ADDRESS

✓ I agree to have my information shared with developers and other companies looking for partners. (Required)

Supply Chain Categories - SERVICES

SERVICES PRODUCTS/MATERIALS

Select either SERVICES or PRODUCTS/MATERIALS above, then click on a category below to see company info.

TURNKEY PROJECT (DESIGN / PROCUREMENT / CONSTRUCTION / INSTALLATION)

| | Wind Power Plants | 6 companies |
|------|--|--------------|
| | Marine & Underground Cable Systems | 6 companies |
| | Fiber Cable Systems | 1 company |
| | Other Modules / Units | 1 company |
| BUIL | DING & CONSTRUCTION WORKS | |
| | Reservoir Construction Works | 6 companies |
| | Pier / Port Construction Works | 12 companies |
| | Road / Bridge Construction Works | 9 companies |
| | Piling / Boring | 27 companies |
| | Tunnelling Construction Works | 5 companies |
| | General Buildings / Offices | 3 companies |
| | Utility Construction | 35 companies |
| | Embankments / Earth Banks Construction Works | 7 companies |
| | Ground Work / Levelling Works | 4 companies |
| | Cable & Pipeline Trenches Construction Works | 24 companies |
| | Other Building & Construction Works | 4 companies |
| WAT | R / SEWAGE CONSTRUCTION WORKS | |
| | Pipe Rehabilitation | 4 companies |
| | Pipe Lining (Trenchless Sewer Repairs) | 2 companies |
| | Guided Drilling | 1 company |
| | Internal Pipe Coating | 1 company |
| | Water & Sewage Pumping Stations | 6 companies |
| | Metering Manholes | 2 companies |
| | Marine Pipe (Water / Sewage) | 1 company |
| | Other Water / Sewage Construction Works | 4 companies |
| | | |





John Begala

Vice President, Federal & State Policy

Business Network for Offshore Wind

john@offshorewindus.org

