

October 19, 2021

Chairman Bobby Rush  
House Energy and Commerce Committee  
Subcommittee on Energy  
2125 Rayburn House Office Building  
Washington, DC 20515

Dear Chairman Rush:

On behalf of the Business Network for Offshore Wind, I am pleased to provide you and the Energy Subcommittee members with our perspective on how to ensure that the U.S. capitalizes on the once-in-a-generation economic development and clean energy opportunity afforded by offshore wind. This industry is positioned to create thousands of jobs in the construction and manufacturing sectors while supplying millions of homes in the United States with clean energy.

However, there is a very real risk that surging global demand and competition for offshore wind project components, services, and raw materials could draw attention and investment away from the U.S. market, preventing the U.S. from reaching offshore wind targets and diminishing job creation prospects. To overcome these obstacles, the U.S. must accelerate efforts to localize a domestic supply chain while also holistically rebuilding our transmission grid, reducing overall ratepayer impact, increasing reliability, and ensuring offshore wind power can be brought ashore. This hearing, “Offshore Wind, Onshore Benefits: Growing the Domestic Wind Energy Industry,” and the ongoing attention of members of this committee is crucial to the industry’s success.

The Business Network for Offshore Wind (Network) is a nonprofit, educational organization that was established nearly a decade ago with a singular mission: to develop the offshore wind renewable energy industry and its supply chain. The Network partners with foundations, industry, and government to identify innovative supply chain approaches that will create and sustain jobs, benefiting local economies and ensuring a cost-effective clean energy portfolio. Our 400-plus members spread in all corners of the nation represent the whole supply chain, from project developers to turbine manufacturers, welders and ship operators.

The Network tracks advancements in the market two ways and our newest metrics show significant supply chain development activity. The Network created Supply Chain Connect (SCC), the premier national offshore wind supply chain database where companies can express their interest and ability to participate in the industry. This database also enables state government tracking of supply chain interest and we have developed cooperative agreements to maximize local opportunities. Additionally, the Network’s Offshore Wind Market Dashboard, a market intelligence tool where publicly identified supplier contracts and project information are compiled, provides even greater insights into the U.S. offshore wind market. These metrics show:

- 40% more entities registered in the Supply Chain Connect Database so far in 2021; and
- 868 supply chain contracts have been identified, up 109% from the beginning of the year.

We are enclosing a map of the current supply chain, pulled from our Market Dashboard and Supply Chain Connect databases, to showcase the how truly national this industry has become.

### **Transmission.**

Transmission and grid integration limitations are critical barriers to the long-term success of the U.S. offshore wind industry. Transmission capacity is a supply-constrained resource and must be addressed in the near-term at large scales. Transmission issues are also not unique to offshore wind and offer the opportunity for a holistic rebuilding of the nation’s energy grid in a way that supports all renewable energy development, increases reliability, and lowers overall costs to ratepayers. Lack of action, however, will artificially cap the offshore wind market.

To address this issue, the Network has convened an industry stakeholder process, which included collaboration with all three Northeast regional grid operators, over the last three years. As a result, the Network has published two papers – in [2020](#) and in [2021](#) – defining the challenges and outlining near-term and long-term recommendations. At their core, these recommendations call for proactive, integrated transmission planning that weighs all benefits, incorporates public policy objectives, and better synchronizes inter-regional planning.

The federal government and Congress can act today by making direct investments to maximize capacity of physical cable routes to onshore points of interconnections. Supporting the proposed Grid Development Authority within the Department of Energy (DOE) will help speed the coordination and approvals needed to advance critical transmission projects. Finally, the Federal Energy Regulatory Commission (FERC) and the Bureau of Ocean Energy Management (BOEM) must be encouraged to deepen their cooperation regarding renewables on the Outer Continental Shelf as first outlined in an [April 2009 Memorandum of Understanding](#).

The Biden Administration set a goal of deploying 30 GW of offshore wind capacity by 2030, and the federal government is best positioned to lead a collaborative stakeholder process to develop a pathway to an interregional transmission solution to achieve that goal. The National Renewable Energy Laboratory (NREL), part of the DOE, recently released a report titled [Atlantic Offshore Wind Transmission Literature Review and Gap Analysis](#), which lays a foundation for beginning this critical process. It reads,

*“Addressing critical gaps of aligning Atlantic Coast stakeholders over broader geographic regions, coordinating offshore wind generation with transmission development, conducting robust planning through broader connected technical analysis, developing standards, and including reliability and resilience implications will enhance decision-making for transmission infrastructure to support offshore wind energy development in the United States.”*

Congress would need to lend its support and attention to this collaborative stakeholder process and support its consensus-driven conclusions for a holistic upgrade to the electricity grid that facilitates

development of at least 30GW of offshore wind. Innovative solutions include adopting an interstate highway system funding model to unlock the substantial investments needed.

### **Supply Chain.**

Emerging and mature global offshore wind markets are experiencing spectacular growth that is eclipsing global supply chain capacity. The Network has calculated that global offshore wind targets collectively total approximately 250 GW by 2030. Given that only 34 GW of offshore wind capacity has been installed worldwide, approximately 27 GW of offshore wind capacity must be installed every year between 2022 and 2030 to meet this collective global target. In response, the federal government must develop a coordinated action plan to build a domestic supply chain capable of ensuring the U.S. maximizes economic benefits and achieves its energy development goals.

The United Kingdom put in motion a nationally coordinated strategy to develop 40 GW of offshore wind power by 2030 that pairs a transparent market development process with an industrialization strategy of specific grants for ports, transmission, and valuable component manufacturing facilities. The manufacturing specific incentives have [already attracted](#) an expanded blade facility, tower facility, monopile facility, and transition piece facility, totaling nearly \$600 million (USD) in private sector investments just this year.

So far this year, BOEM has taken action to create needed market certainty; last week the agency released a regional leasing schedule that, when paired with the agency's efforts to bring transparency to the permitting process, identifies a market through 2030. These efforts must be paired with a dedicated industrial development strategy that targets incentives to mission-critical needs, like specific funding for offshore wind ports and more financing options through refundable credits or expanded loans that directly target manufacturing investments.

Securing valuable offshore wind component facilities can help create thousands of downstream supplier jobs in the small and medium-size businesses that form the backbone of a supply chain. Ensuring the greatest participation possible of these firms requires clear policy support from federal and state governments to support retooling or expanding facilities, training a new workforce and securing needed certifications. Creating new or scaling up existing programs can support these businesses by:

- Expanding access to capital, like through Maryland's offshore wind grant program that has already handed out over \$5 million to help local companies and training centers expand.
- Creating a new revolving loan fund for smaller companies waiting out 90-day payment cycles of larger suppliers for the first time.
- Assisting companies obtain quality (ISO 9000) and safety certifications, possibly through programs like the Department of Commerce's Manufacturing Extension Partnership.
- Creating a new federal Green Bank (as was done in New York and Connecticut) to provide financing, letters of credit or other financial mechanisms that de-risk differences between U.S. and European contracts; and
- Amending the Department of Energy Clean Energy Incentives for Innovative Technologies loan to make it more accessible to businesses by lowering capital requirements.

### **Workforce Development.**

The development of 30 GW of offshore wind by 2030 will create tens of thousands of well-paying jobs, many of which will require specialized training. With current labor shortages, lack of skilled workers can create a development bottleneck. Potential models for federal and state replication are found all over the nation. Maryland created an Offshore Wind Workforce Training Program, which provides grant funding to create or operate offshore wind training centers. Massachusetts, recently awarded grants to six academic institutions, including Massachusetts Maritime Academy, to establish offshore wind training and development programs. Virginia recently formed the Mid-Atlantic Wind Training Alliance to provide a full suite of workforce training classes and certification programs. New Jersey established a Wind Institute and New York created an Advisory Council on Offshore Wind Economic and Workforce Development to meet each state's respective offshore wind workforce needs.

Based on these programs and European models, the Congress may consider authorizing grants and loans for development, expansion and licensing of offshore wind skills training centers providing safety training, paid apprenticeship program incentives, certification to unions, community colleges, and maritime academies for workforce development. The need for funding includes facility upgrades/capital improvements and equipment, and operational funding for accreditation and trainer training, critical due to a lack of credentialed trainers in the U.S. Grants and loans should be contingent upon regional training gaps assessments and collaboration to not duplicate programs within a region.

### **Conclusion.**

Offshore wind represents an enormous opportunity for the nation to further develop our renewable energy resources while creating new economic benefits for American companies and workers. Developmental hurdles exist but they can be overcome with proper planning and coordination, and I once again thank the Committee for taking another step in that process with your hearing. Solving our energy grid issues requires an integrated planning process that looks years down the road. Ensuring we have a supply chain capable of delivering 30 GW of offshore wind power by 2030 requires coordinated efforts to build market certainty, execution of a national industrial strategy, and support for our small and mid-sized businesses. Expanding job opportunities to American workers requires building up workforce development programs. These actions can help unlock the potential of offshore wind.

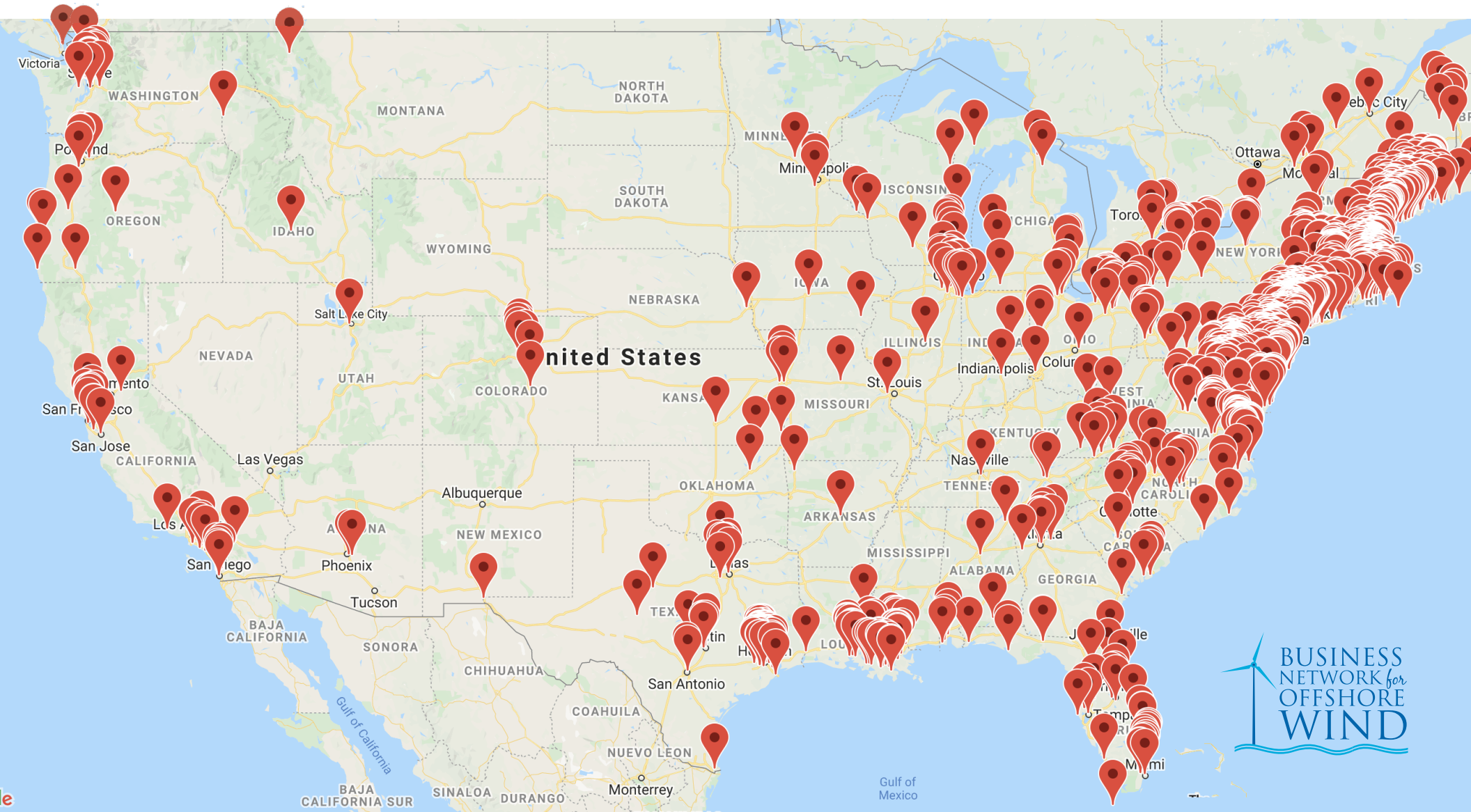
The Network looks forward to working with members of this committee to build a durable offshore wind industry and its supply chain here in the United States.

Yours sincerely,



Liz Burdock  
CEO and President  
Business Network for Offshore Wind

# The Emerging U.S. Supply Chain for Offshore Wind



This map of the current supply chain has been pulled from the Business Network for Offshore Wind's Market Dashboard and Supply Chain Connect databases.

October, 2021

|                      |    |           |     |               |     |                |     |               |     |
|----------------------|----|-----------|-----|---------------|-----|----------------|-----|---------------|-----|
| ALABAMA              | 9  | GEORGIA   | 17  | MASSACHUSETTS | 468 | NORTH CAROLINA | 33  | UTAH          | 1   |
| ALASKA               | 4  | HAWAII    | 1   | MICHIGAN      | 11  | OHIO           | 31  | VERMONT       | 1   |
| ARIZONA              | 2  | IDAHO     | 2   | MINNESOTA     | 5   | OKLAHMOA       | 1   | VIRGINIA      | 248 |
| ARKANSAS             | 5  | ILLINOIS  | 30  | MISSISSIPPI   | 2   | OREGON         | 18  | WASHINGTON    | 23  |
| CALIFORNIA           | 48 | INDIANA   | 6   | MISSOURI      | 4   | PENNSYLVANIA   | 59  | WEST VIRGINIA | 3   |
| COLORADO             | 18 | IOWA      | 3   | MONTANA       | 1   | PUERTO RICO    | 2   | WISCONSIN     | 11  |
| CONNECTICUT          | 31 | KANSAS    | 5   | NEBRASKA      | 3   | RHODE ISLAND   | 66  |               |     |
| DELAWARE             | 16 | LOUISIANA | 59  | NEW HAMPSHIRE | 29  | SOUTH CAROLINA | 10  |               |     |
| DISTRICT OF COLUMBIA | 30 | MAINE     | 495 | NEW JERSEY    | 369 | TENNESSEE      | 4   |               |     |
| FLORIDA              | 51 | MARYLAND  | 233 | NEW YORK      | 209 | TEXAS          | 202 |               |     |