

Roundtable Summary

The Future of Offshore Wind Energy in the United States

April 2021



Chairs

Ernest Moniz, Founder and CEO, Energy Futures Initiative

Elizabeth Shuler, Secretary-Treasurer, AFL-CIO

Authors

Kevin Knobloch, Distinguished Associate, Energy Futures Initiative

Nicole Pavia, Project Manager and Senior Contributing Analyst, Energy Futures Initiative

Additional Contributors

Trisha Calvarese, Senior Speechwriter, AFL-CIO

David Ellis, Vice President of Communications, Energy Futures Initiative

David Foster, Distinguished Associate, Energy Futures Initiative

Tomas Green, Policy Analyst, Energy Futures Initiative

Joseph Hezir, Principal and Executive Vice President, Energy Futures Initiative

Melanie Kenderdine, Principal and Executive Vice President, Energy Futures Initiative

Alex Kizer, Senior Vice President for Research, Energy Futures Initiative

Brad Markell, Executive Director, AFL-CIO Industrial Union Council and Working for America Institute

Natalie Volk, Communications Associate, Energy Futures Initiative

Layout Design

Natalie Volk, Communications Associate

Technical Support

Charles Marson, AV Technician, AFL-CIO

About the Labor Energy Partnership

The Labor Energy Partnership (LEP) is based on a shared commitment of the AFL-CIO and the Energy Futures Initiative to promote federal, regional and state energy policies that address the climate crisis while recognizing the imperatives of economic, racial and gender justice through quality jobs and the preservation of workers' rights.

Suggested Citation: Labor Energy Partnership. "Roundtable Summary: The Future of Offshore Wind Energy in the United States." April 2021.

© 2021 Energy Futures Initiative



This publication is available as a PDF on the Energy Futures Initiative website under a Creative Commons license that allows copying and distributing the publication, only in its entirety, as long as it is attributed to Energy Futures Initiative and used for noncommercial educational or public policy purposes.

energyfuturesinitiative.org

Introduction

The Labor Energy Partnership (LEP), an initiative of the Energy Futures Initiative (EFI) and the AFL-CIO, hosted a private roundtable discussion on the Future of U.S. Offshore Wind Energy on March 26th from 1:00 - 4:00 pm ET. The LEP is based on a shared commitment by both organizations to promote federal, regional and state energy policies that address the climate crisis while recognizing the imperatives of economic, racial, and gender justice through quality jobs and the preservation of workers' rights.

At the time of the roundtable's convening, the Biden-Harris Administration had proposed to double the scale of deployment of offshore wind energy by 2030. States along the Atlantic seaboard have already committed to around 32 GW of offshore wind energy by 2035, with estimates of about 20 GW in various stages of planning and development. This emerging industry is poised to significantly contribute to decarbonizing the power sector by 2035, build a robust domestic supply chain of companies, boost the reliability and resiliency of a modernized national electric grid infrastructure, and create tens of thousands of new union jobs.

This private virtual roundtable of key thought leaders was meant to inform the development of the offshore wind industry as policymakers consider infrastructure funding, economic recovery,

and the development of the U.S. Nationally Determined Contribution as part of the Paris Agreement. At the roundtable, the LEP and roundtable participants sought to engage in a frank exchange of viewpoints on necessary federal policies and programs to enable the growth of a domestic supply chain and robust transmission system.

Ernest Moniz, CEO of EFI and the 13th U.S. Secretary of Energy, and Elizabeth Shuler, Secretary-Treasurer of the AFL-CIO, co-hosted the roundtable. The participants included eight officials from Federal and State government, five Labor leaders, five leaders of wind energy companies, and five leaders from industry trade groups, non-profit organizations, and academia. Kevin Knobloch, an EFI Distinguished Associate, moderated the roundtable.

Roundtable Format, Ground Rules, & Participants

The roundtable was organized and managed to maximize contributions from participants on two issue areas: development of a domestic supply chain and development of an offshore wind transmission system. Each session was initiated with a brief table-setting presentation and followed by a moderated open discussion. Roundtable observers listened to the discussions, contributed substantively via the

roundtable chat function, and were invited to submit written observations and recommendations following the roundtable.

The roundtable was conducted under

Roundtable Participants

Damian Bednarz, External Affairs Director, EnBW North America

Patrick Bloom, Executive Vice President, Government Relations, Cleveland Cliffs

Robert Blue, President and CEO, Dominion Energy

Brent Booker, Secretary-Treasurer, North America's Building Trades Union

Judy Chang, Undersecretary of Energy, Massachusetts Executive Office of Energy and Environmental Affairs

Thomas Conway, International President, United Steelworkers

Eric Dean, General President, Iron Workers

Siri Espedal Kindem, President, Equinor Wind U.S.

Kate Gordon, Director, California Governor's Office of Planning and Research

Ross Gould, Vice President for Supply Chain Development, Business Network for Offshore Wind

Rob Gramlich, Executive Director, Americans for a Clean Energy Grid

Kai Guo, Vice President, Power Markets, Kiewit, Inc

Chatham House Rule; therefore, no quotes or statements in this report are attributed to any individual roundtable attendee.

David Hardy, CEO, Offshore, North America, Ørsted

David Hayes, Special Assistant to the President for Climate Policy, The White House

Doreen Harris, Acting President and CEO, New York State Energy Research and Development Authority

Amanda Lefton, Director, Bureau of Ocean Energy Management

Brian Lombardozi, Vice President for State Governmental Affairs, Alliance for American Manufacturing

Stephanie McClellan, Founder and Advisor, University of Delaware Special Initiative on Offshore Wind

Ernest Moniz, Founder and CEO, Energy Futures Initiative; 13th U.S. Secretary of Energy

Steve Pike, Executive Director, Massachusetts Clean Energy Center

Elizabeth Shuler, Secretary-Treasurer, AFL-CIO

James Slevin, President, Utility Workers Union

Kelly Speakes-Backman, Principal Deputy Assistant Secretary for the Office of Energy Efficiency and Renewable

Energy and Acting Assistant Secretary,
U.S. Department of Energy

Lonnie Stephenson, President,
International Brotherhood of Electrical
Workers

Roundtable Observers

Luke Bassett, Democratic Professional
Staff Member, U.S. Senate Committee on
Energy & Natural Resources

Rod Beresford, AAAS Fellow, U.S. Senate
Committee on Energy & Natural
Resources

Roxanne Brown, Vice President, United
Steelworkers Union

Donnie Colston, Director, Utility
Department, International Brotherhood
of Electrical Workers

David Foster, Distinguished Associate,
Energy Futures Initiative

Michelle Frisk, Legislative
Representative, Iron Workers

James C. Harrison, Director, Renewable
Energies, Utility Workers Union of
America, AFL-CIO

Joseph Hezir, Managing Principal, Energy
Futures Initiative

Melanie Kenderdine, Managing Principal,
Energy Futures Initiative

Jennifer Kropke, Director of Energy
Jobs, U.S. Department of Energy

Austin Keyser, Director of Political and
Legislative Affairs, International
Brotherhood of Electrical Workers

David Terry, Executive Director, National
Association of State Energy Officials

Ali Zaidi, Deputy National Climate
Advisor, The White House

Brad Markell, Executive Director, AFL-
CIO Industrial Union Council and
Working for America Institute

Robert Marlay, Director, Wind Energy
Technologies Office , U.S. Department of
Energy

Laura Morton, Senior Director, Policy and
Regulatory Affairs, Offshore, American
Clean Power Association

Francis O'Sullivan, Senior Lecturer,
Massachusetts Institute of Technology

Ruth Perry, Business Environment
Advisor, Shell Renewables & Energies
Solutions

Dale Reckman, Business Development
Manager, General Tool Co.

Tim Ryder, Legislative Aide, U.S. Senate
Majority Leader Charles E. Schumer

Peter Stahley, Democratic Professional
Staff Member, U.S. Senate Committee on
Energy & Natural Resources

Ross Templeton, Political and Legislative
Director, Iron Workers International

Karen Wayland, CEO, GridWise Alliance

Discussion Questions

The following questions were posited to roundtable participants during each session to guide discussion and solicit feedback on offshore wind supply chain and transmission grid considerations.

Session One | Building a Robust U.S. Supply Chain of Companies and Jobs

1. What policies or programs are needed to ensure that existing and new U.S. manufacturers can swiftly develop the capability to meet the supply chain requirements for offshore wind, such as primary metals and other materials, turbines (including nacelles, rotor and assembly), blades, towers, foundations, offshore substations, cables (including array, export and upland cable), and onshore substations? What are the existing supply commitments for projects that have been approved by states? How should policies, such as domestic content requirements to promote U.S. supply chain providers, be balanced with imports?
2. What policies or programs are needed to ensure that existing and new U.S. service providers will have the capability to meet offshore wind energy and transmission development/construction/service needs, such as installation and commissioning; operation, maintenance and service; marine and terrestrial surveying; project-scale design and engineering; transporting components?
3. What are the opportunities and challenges for developing a fleet of Jones Act compliant vessels for installation and maintenance of offshore wind infrastructure? Will Jones Act exemptions, limited either in scope or timeframe, be needed?
4. What is the potential scale of workforce requirements? Will additional workforce development initiatives may be needed to meet the workforce requirements of the manufacturing and service activities?
5. How do we ensure that offshore wind supply chain jobs are high-road, union jobs in line with the Biden Administration's goals and international labor standards?
6. How do we ensure that, as the offshore wind industry and associated supply chain grows, minority-owned companies and workers from under-served communities are able to fully participate in this new economic sector?



Session Two | Planning, Designing, and Building an Offshore Transmission Grid

1. What are the alternative architectures for an offshore wind transmission network? How should it be sized and phased-in? Possible examples include but are not limited to multiple private transmission links, a privately developed backbone with individual interconnects, or a federal backbone modeled after the federal power marketing administrations?
2. What should be the appropriate business models for developing the offshore wind transmission systems, including planning, permitting, construction financing and operations and management?
3. What policies and incentives are needed to ensure the successful planning, design and construction of an efficient and effective offshore wind energy transmission grid?
4. What are the respective roles of DOE, DOI, FERC, the respective ISOs and RTOs, and the offshore wind states in ensuring an efficient design, construction and management of an offshore wind transmission network?
5. What modifications may be required to the existing onshore grid to accommodate the injection of large amounts of offshore wind energy and minimize the cost of needed upgrades and ratepayer cost impacts?
6. What design approaches will lessen harmful impacts on commercial fishing, commercial shipping, endangered marine species and onshore neighborhoods hosting new transmission infrastructure?
7. What are the workforce needs to support the buildout of the transmission network? How can existing labor-management training programs and/or new ones be expanded to accommodate the volume of training needed for offshore cable and substation installation, operations and maintenance?

Executive Summary

This section enumerates top-line points from the roundtable discussion.

1. Top Line Policy Issues to Ensure a Robust Buildout of Offshore Wind

Assembling a Broad Coalition of Stakeholders is Key. With senior stakeholders from industry, government, labor, and civil society represented, the roundtable discussion showcased the promise for how a coalition could effectively work together to boost this new economic sector.

Targeted Funding and Tax Support for Early Movers to Spur Growth of the Industry. As with any nascent domestic industry, targeted Federal incentives can help overcome early hurdles and smooth the way for private capital investment and ratepayer support to step in and shoulder the bulk of the financial load. Roundtable participants cited a number of targeted needs, some requiring executive action by the President or key Federal agencies and others legislative action by Congress.

Action Needed to Ensure that Offshore Wind Jobs are “High Road” Jobs. One concern voiced by several participants was that the clean energy sector is not yet providing the high-quality jobs that American workers want, creating the impression among American workers that fighting climate change means a shift to low-paying jobs, imported

components, and a loss of high-quality jobs.

Unions Stand Ready to Train American Workers for Offshore Wind Jobs. The discussion reflected an appreciation that onshore and offshore wind energy skill sets are different. Participants stressed that the key labor unions have robust training programs that can be readily and swiftly adapted to offshore wind companies’ skill needs, as long as the companies are specific about those needs—including global safety certifications—and resources are made available to support that training.

Applause for the “Whole of Government” Approach. Roundtable participants noted that the different parts of the Biden Administration present—from the White House, U.S. Department of Energy (DOE), and U.S. Department of Interior (DOI)—were speaking with one voice and welcomed this process as very positive for the development of the industry.

2. Building a Robust U.S. Supply Chain of Companies and Jobs.

Regulatory, Policy, and Schedule Certainty is a High Priority. Many leaders said an essential ingredient of the U.S. offshore wind industry’s successful growth and investment in building out the supply chain is market certainty.



There was a robust discussion of what constitutes certainty, and whether in fact enough certainty already exists to justify the siting of major component production in the United States.

Targeted Funding and Tax Support for Early Movers to Spur Growth of the Industry. As with any nascent domestic industry, targeted Federal incentives can

help overcome early hurdles and smooth the way for private capital investment and ratepayer support to step in and shoulder the bulk of the financial load. Roundtable participants cited a number of targeted needs, some requiring executive action by the President or key Federal agencies and others legislative action by Congress.

Domestic Content Preferences are Needed but Must be Smartly Designed.

Several participants cited the need for domestic content preferences while adding a cautionary note that some past efforts to craft “buy America” policy provisions fell short of intended outcomes, and expressing support for the Biden Administration’s effort to tighten the rules.

3. Planning, Designing, and Building an Offshore Wind Transmission Grid

Tension Between Individual Project Approach and Grid Planning Must be Reconciled. The roundtable discussion identified a tension between the sense of urgency to immediately deploy offshore wind projects that have vertically integrated transmission and the desire for comprehensive transmission planning to ensure the full, cost-effective build-out of the industry. Participants overall felt that this tension could be resolved by maintaining optionality and flexibility in the early projects and planning a more robust transmission grid in parallel.

Targeted Funding and Tax Support for Early Movers to Spur Growth of the Industry. As with any nascent domestic industry, targeted Federal incentives can help overcome early hurdles and smooth the way for private capital investment and ratepayer support to step in and shoulder the bulk of the financial load. Roundtable participants cited a number of targeted needs, some

requiring executive action by the President or key Federal agencies and others legislative action by Congress.

Collaboration and Coordination Among the Federal, Regional, and State Actors Is Needed. In making optimal decisions about upgrading and strengthening the existing onshore grid and thinking through the ultimate offshore grid network, utilities, market participants, and federal agencies would benefit from more collaboration and coordination, participants said.

FERC Action Should Address Inter-state and Inter-regional Planning. A consensus emerged that Federal Energy Regulatory Commission (FERC) should act to resolve transmission hurdles, even as there was lack of agreement on whether FERC should update FERC Order 1000 or undertake a new rulemaking, or even create a new, independent transmission planning entity.

Plan for Public Opposition to Siting Onshore Transmission Infrastructure. Participants noted that siting of transmission has become increasingly difficult, particularly in the Northeast, and yet transmission projects are essential to achieving climate change goals. The group accepted that public opposition to siting new onshore transmission infrastructure should be anticipated and that government and industry need to plan ahead for how to listen to, understand and address community concerns.

Roundtable Findings

This section details the most notable points that emerged from the roundtable discussion.

1. Top Line Policy Issues to Ensure a Robust Buildout of Offshore Wind

Assembling a Broad Coalition of Stakeholders is Key. With the stakeholders from industry, government, labor, and civil society represented, the roundtable showcased how a coalition could effectively work together to boost this new economic sector. Participants stressed that achieving the supply chain and transmission objectives will require collaboration and coordination across all the key stakeholders: the Federal government, offshore wind states, wind generation and transmission developers, wind equipment manufacturers, and organized labor. Collaboration and coordination with the commercial fishing and shipping industries, environmental organizations, the marine biology community, and regional (inter-regional and inter-state) coordination will also be extremely important.

One participant in particular stressed the need to engage environmental advocates “to support the overarching reality that the transition (especially a just transition) to a carbon neutral economy will require new industrial development and transmission capacity.” Another speaker echoed that such outreach must be done “in a

constructive manner that considers the longer-term benefits of transition (to clean energy), in response to mitigating the changing climate and benefits (environmental, natural resources, infrastructure, employment, etc.) of renewables transition.”

Other observations included that “collaboration between industry, labor, academia, and government is a priority for workforce development. Industry and government must support training and trainers, including informing numbers of people that need to be trained by when and for what skill sets.” Another comment: “Everything good that happened on the east coast offshore wind was due to strong coalitions between industry, enviros, labor, academia, and thought leaders along with state and federal policy makers.”

Targeted Funding and Tax Support for Early Movers to Spur Growth of the Industry. As with any nascent domestic industry, targeted Federal incentives can help overcome early hurdles and smooth the way for the needed influx of private capital investment and gain ratepayer acceptance. Roundtable participants cited a number of targeted needs, some requiring executive action by the President or key Federal agencies and others legislative action by Congress. They include:

1. Increasing the U.S. Department of Energy's (DOE) Loan Program Office funding to include offshore wind transmission network infrastructure and associated upgrades of coastal grid infrastructure, including public-private partnerships.
2. Funding grants to expand ports to support installation and maintenance of offshore wind farms and transmission facilities.
3. Allowing for the direct pay of renewable energy tax credits to address continuing decreases in the availability of tax equity. The current inefficiency in the third-party tax equity market adds to the cost of offshore wind.
4. Increasing funding for Bureau of Ocean Energy Management (BOEM) staff capacity to more quickly identify and finalize WEAs, conduct lease auctions, and advance permitting processes.

Subsequent to the roundtable, the Biden-Harris Administration's announcements on building the U.S. offshore wind industry (on March 29) and on investing in infrastructure and jobs (on March 31) included a number of strong commitments to fund the needs identified by roundtable participants. They included:

1. The DOE Loan Program Office will make \$3 billion in credit support available to support the offshore

wind industry.

2. The U.S. Department of Transportation's (DOT) Maritime Administration is issuing a Notice of Funding Opportunity for port authorities and other applicants to apply through the Port Infrastructure Development Program for \$230 million for port and intermodal infrastructure-related projects to support shore-side wind energy projects, such as storage areas, laydown areas, and docking of wind energy vessels to load and move items to offshore wind farms.
3. The American Jobs Plan calls for the "creation of a targeted investment tax credit that incentivizes the buildout of at least 20 GW of high-voltage capacity power lines and mobilizes tens of billions in private capital off the sidelines" and establishment of "a new Grid Deployment Authority at the Department of Energy that allows for better leverage of existing rights-of-way along roads and railways and supports creative financing tools to spur additional high priority, high-voltage transmission lines."
4. The plan also calls for "ten-year extension and phase down of an expanded direct-pay investment tax credit and production tax credit for clean energy generation and storage" to be paired with "strong labor standards to ensure the jobs created are good-quality jobs with a

free and fair choice to join a union and bargain collectively.”

Action Needed to Ensure that Offshore Wind Jobs are “High Road” Jobs. One concern voiced by several participants was that the clean energy sector is not yet providing the high-quality jobs that American workers want, creating the impression among American workers that fighting climate change means a shift to low-paying jobs, imported components, and a loss of high-quality jobs. “This creates a political problem that has blocked progress towards fighting climate change that we all want.”

This leader added that “...the offshore wind sector offers an important opportunity to accelerate the clean energy transition by proving that clean energy creates good-paying jobs, like the jobs that currently existed in the (unionized) fossil fuel industries, especially with President Biden’s commitment to well-paying union jobs. Our President said he would be the most pro-union President in history. We believe we can have a just transition.”

Another leader said that the opportunity to incorporate American manufactured materials and components into terrestrial, utility-scale wind energy in the U.S. over the past couple of decades was lost when “we never geared up at all to build our own equipment and to build our own supply chain.” He added, “We missed the golden age of (terrestrial) wind and

never got the industry nailed down. We can’t allow that to happen again.”

The discussion on creating high quality jobs focused on what one leader called the multi-tiered ecosystem of jobs. The initial “precursor” jobs are in the design, planning, engineering, surveying, port upgrades, and other early work essential to developing offshore wind projects. The next wave of jobs is engaged in building the generation and transmission infrastructure, both in the water and on land, followed by new jobs in the manufacturing supply chain. “If we build it right, there will be long-term, high-paying jobs in the supply chain,” that leader said.

One speaker said that offshore wind is a “skilled industry and many of the jobs are offering higher salaries than land-based wind and solar.” Others emphasized that project-labor agreements need to be prioritized as they provide a clear market signal and commitment to labor.

Unions Stand Ready to Train American Workers for Offshore Wind Jobs. The discussion reflected an appreciation that despite significant overlap, there are important differences in onshore and offshore wind energy skill sets are different. Participants stressed that the key labor unions have robust training programs that can be readily and swiftly adapted to offshore wind companies’ skill needs, as long as the companies are specific about those needs—including global safety certifications—and that

existing resources can be made available to support that training. Training should be done proactively and shouldn't wait until it's needed. That investment and coordination will pay off, as "skilled workers will do everything we can to move things along quickly and efficiently."

For example, the International Brotherhood of Electrical Workers (IBEW) has over 300 training centers across the country. "If additional training is needed for offshore wind, IBEW is in the position to provide that training and can get it done in a hurry. IBEW workers need to get certified for offshore wind and want to be part of the whole picture." Wind developers also are prepared to train workers and to encourage supply chain companies to do the same.

Applause for the "Whole of Government" Approach. Roundtable participants noted that the different parts of the Biden Administration present—from the White House, DOE and DOI—were speaking with one voice and welcomed this process as very positive for the development of the industry. "The whole of government approach will go a long way in providing certainty," one speaker said, adding that it is important that the Biden Administration actively resolve interagency conflicts.

Early actions by BOEM under Director Amanda Lefton's new leadership is seen as significant progress in this regard.

Some fundamental, historical barriers in other agencies (e.g. environmental resource management versus consulting role permitting for wind), however, will need to be carefully examined and addressed by the White House. Government agencies that work with important stakeholders, like National Oceanic and Atmospheric Administration Fisheries, should be more active in helping to engage those stakeholders earlier versus that burden being solely on BOEM.

2. Building a Robust U.S. Supply Chain of Companies and Jobs

A strong theme of the discussion was that supply chain considerations are "horse-before-cart" issues that need immediate attention.

One speaker said there should be a thorough analysis of the offshore wind supply chain that identifies existing manufacturing capacity and gaps, particularly with technical standards. "In my experience with onshore wind, lack of understanding the gaps in the supply chain was a particular problem. As others have noted, the time to do this work is now, not in two to four years."

Another theme was a desire for the Federal government and other stakeholders to play a stronger coordinating role in rationalizing to balance individual state interests while ensuring that states and regions develop the best ports, manufacturing



facilities, and offshore wind operation and maintenance (O&M) jobs.

Regulatory, Policy, and Schedule Certainty is a High Priority. Many participants said an essential ingredient of the U.S. offshore wind industry’s successful growth and investment in building out the supply chain is market certainty. “Business certainty is the baseline for private investment in this sector,” one said. “This has to be the underlying first principle.” Such certainty could be provided by a comprehensive government approach to facilitating the development of the industry, measures that provide clarity of government offshore wind goals, and predictability in the Wind Energy Area (WEA) lease auction and project permitting schedules/processes. Certainty in turn will “help ensure a jobs-producing project pipeline.”

One leader noted that the current lack

of certainty is directly related to the fact that no single commercial scale project has yet received a federal permit. Only two projects have officially started the National Environmental Policy Act (NEPA) process and all eight Construction and Operations Plan (COP) applications that have been submitted are awaiting processing. Participants did express optimism that early actions by the Biden-Harris Administration demonstrate a commitment to accelerating the relevant processes. Those actions include releasing the final Environmental Impact Statement (EIS) for the 800 MW Vineyard Wind project off the coast of Massachusetts—the first large-scale offshore wind project to have advanced to this point since the ill-fated Cape Wind project in 2009. The Vineyard Wind project now awaits a final Record of Decision from BOEM.

Some speakers countered that there is sufficient certainty for industry to

develop a robust U.S. supply chain, provided by the fact that seven Atlantic coast states to date have made procurement awards for 15 offshore wind projects totaling nearly 12 GW of new energy. One speaker said the desire for regulatory certainty is understandable but that “there is no certainty in anything we do.”

Speakers cited the urgency for BOEM to issue Notices of Intent (NOIs) to initiate EISs for projects with state procurement awards in hand. “What I would suggest is of crucial importance is for the NOIs to start being issued,” said one participant, adding “NOIs are not decisions; they are schedules. If we have a schedule that everyone knows we have to stick to, it will prompt us to move in ways that will be very valuable for the industry and our labor union partners.”

This kind of regulatory certainty is key for companies to make investments in the domestic supply chain. The need for market certainty is not only important for the large wind developers, but also for the Tier 2 and 3 supply chain companies who need regulatory certainty for investment decisions.¹ “We need to start providing regulatory certainty for companies to make further investment,” one participant said. One example of creating certainty for U.S.

ship builders considering competing for offshore wind business by building installation and maintenance vessels is Congress’s inclusion, in the final National Defense Authorization Act (NDAA) for fiscal year 2021 signed into law by President Trump in December 2020, of an amendment by Representative John Garamendi’s (D-CA) requiring enforcement of the Jones Act and other federal laws in offshore wind development.

The Biden Administration’s offshore wind announcements on March 29, three days after the roundtable, took clear strides toward providing business certainty. First and foremost, by announcing a new national offshore wind energy goal of 30 gigawatts (GW) by 2030, the administration declared that the U.S. is seriously committed to an aggressive build out of this industry. The additional announcements of commitments by BOEM that when implemented will create more regulatory clarity and certainty include 1) to advance a final WEA in the New York Bight and proceed with a comment period and lease sale; 2) to issue a NOI to prepare an EIS for New Jersey’s 1100 MW Ocean Wind project; and 3) to schedule new WEA lease sales and complete review of 16 COPs by 2025.

1. A notable early supply chain investment by Dominion Energy to commission the construction of the first Jones-Act compliant offshore wind installation vessel was celebrated by the group. That vessel, which is being constructed by the global shipbuilding firm Keppel AmFELS at its Brownsville, TX shipyard and will be based out of Hampton Roads, VA, is expected to be available to support U.S. offshore wind turbine installations by the end of 2023.

Oil and gas supply chain providers based in the Gulf of Mexico are increasingly interested in entering the offshore wind industry. This would, however, require a significant investment by the oil and gas industry to diversify, one speaker said. “Leveraging existing government tools and funds could help insulate and minimize the financial risk of diversifying their businesses.”

One participant offered a reason for moving forward with optimism: The American manufacturing sector has always succeeded in producing the most difficult and cutting edge products, and we can succeed in the offshore wind sector, too.

Targeted Funding and Tax Support for Early Movers to Spur Growth of the Industry. As with any nascent domestic industry, targeted Federal incentives can help overcome early hurdles and smooth the way for the needed influx of private capital investment and gain ratepayer acceptance. Roundtable participants cited a number of targeted needs, some requiring executive action by the President or key Federal agencies and others legislative action by Congress. They include:

1. Reinstating the 48C Advanced Energy Manufacturing Tax Credit program to help spur the development of a robust U.S. manufacturing capacity for American-made offshore wind turbines, nacelles, blades, subsea

cables, and other parts/equipment (as well as supporting U.S. exports of this U.S.-made equipment into the exploding global offshore wind market).

2. Funding grants or loan guarantees to support construction by U.S. shipbuilders of Jones Act-compliant installation and maintenance vessels.

Domestic Content Preferences are Needed but Must be Smartly Designed.

Several participants cited the need for domestic content preferences while adding a cautionary note that some past efforts to craft “buy America” policy provisions fell short of intended outcomes due to shortcomings in current legal provisions, which the Biden Administration is reviewing following an Executive Order. One example cited was a U.S. DOE regulation that only covered assembly and not manufacturing of components; another was a U.S. DOT regulation requiring American workers be hired to construct bridges but with many of those projects using foreign fabricated steel. “The right way to do this is incentivizing domestic preferences for any of the private sector involvement,” one speaker said. “We will need to work closely with the Administration. We need to learn from how we’ve done things in the past.”

In a noteworthy and relevant development that occurred shortly after the roundtable, the budget deal adopted by the New York state legislature on April 6, 2021 and signed

by Governor Andrew Cuomo included provisions that require covered projects to buy American steel and iron where feasible and that incentivize procurement of New York State renewable energy equipment and supplies.²

One roundtable speaker said, “We can learn from how funding with Buy America preferences for public transit helped attract Original Equipment Manufacturers (OEMs) and build up supply chains. The certainty of the six-year funding authorizations via the Surface Transportation Bill offered significant certainty for the players in those markets.” Genuine buy-in from OEMs is key, as “too often the global OEM base reverts back to mature supply chains abroad as a result of U.S. sub-component costing and (domestic) availability resulting partially from market sector steep learning curves,” another participant said.³

Another essential piece of the puzzle is due diligence to ascertain which certifications, work skills, and technical equipment are necessary qualifications for parts suppliers. One specific

suggestion was for President Biden to direct the U.S. Departments of Energy and Commerce, working with the Manufacturing Extension Partnership system, to produce the specifications necessary to create a robust supply chain and create a data base of qualified suppliers. “This will be a multi-year effort to get some of the largest manufacturers located here with domestic content requirements phased in.”

One speaker pointed to the experience of small U.S. manufacturers trying to break into the U.S. terrestrial wind industry that was dominated by European manufacturers. With the goal of getting U.S. and European manufacturers on the same page, “we ultimately focused on publicizing the specs, providing an understanding of production equipment upgrades and connecting parts manufacturers with assemblers.” That speaker later added: “Widespread maturation of the U.S. supply chain base will not occur—or at a minimum will be severely hampered—until such time that it makes sound financial sense for U.S. manufacturers and OEM’s to genuinely connect.”

-
2. The budget package also requires, for renewable-energy projects that are 5 megawatts or larger, prevailing wage and project labor agreements (for construction) and labor peace agreements (for operations and maintenance work).
 3. It was noted that no U.S. steel manufacturer currently produces plate steel with the thickness or size that is needed for monopile manufacturing, and that wind energy developers would welcome the chance to source price-competitive U.S.-made steel for monopile manufacturing. Another speaker reported that in 2022, Nucor Corp. will be commissioning a state-of-the-art plate mill in Brandenburg, Kentucky to offer customers an expanded size range of 3/16” to 14” in thickness, widths from 60” to 170” and lengths up to 1500”. Located on the Ohio River, Nucor Brandenburg will offer a variety of shipping lanes and methods to access customers across North America.



Offshore vessel for placing wind turbines at sea in the Eemshaven harbor. Groningen, Holland.

3. Planning, Designing, and Building an Offshore Wind Transmission Grid

Tension Between Individual Project Approach and Grid Planning must be Reconciled. The roundtable discussion identified a tension between the sense of urgency to immediately deploy offshore wind projects that have vertically integrated transmission and the desire for comprehensive transmission planning to ensure the full, cost-effective build-out of the industry. Participants overall felt that this tension could be resolved by maintaining optionality and flexibility in the early projects and planning a more robust transmission grid in parallel.

“We are at a place in which we want to see steel in water on a timescale that is not going to allow the buildup of a desirable integrated transmission system,” one speaker said. “The timing is not such that we can have the most purely logical system we would want. The key will be how to maintain as much optionality and flexibility of the system as possible.” Another speaker said,

“When we think about the offshore network, we should not spend so much time thinking about building the perfect network that we do not get moving.”

Other speakers called for undertaking long-range planning and grid design in parallel with the first wave of individual projects. “Analysis paralysis should be avoided, but we will regret it if we do not plan today for 10 years out,” a participant said. “The existing onshore electrical grid was not constructed over time in anticipation of large injections of offshore wind energy. High voltage lines are far from the coast.”

Of note is that the first 15 projects in seven Atlantic coast states that have received state procurement awards, totaling nearly 12 GW of new energy, all feature direct generator lead lines from the wind farms to the onshore grid.

Targeted Funding and Tax Support for Early Movers to Spur Growth of the Industry. As with any nascent domestic industry, targeted Federal incentives can help overcome early hurdles and

smooth the way for the needed influx of private capital investment and gain ratepayer acceptance. Roundtable participants cited a number of targeted needs, some requiring executive action by the President or key Federal agencies and others legislative action by Congress. They include:

1. Expanding the new Offshore Wind Investment Tax Credit (ITC) eligibility to include transmission components—from offshore collector platform to onshore substation point of interconnection, including export cables. The U.S. Treasury Department and Internal Revenue Service (IRS) could issue clarifying guidance to expand the ITC in this way.
2. Allowing offshore wind projects to elect the 100 percent Production Tax Credit in lieu of the 100 percent offshore wind ITC, as this optionality will broaden the pool of available tax equity to monetize offshore wind tax credits by spreading the tax credit out over the first 10 years of the project.

Collaboration and Coordination among the Federal, Regional, and State Actors is Needed. In making optimal decisions about upgrading and strengthening the existing onshore grid and thinking through the ultimate offshore grid network, utilities, market participants, and federal agencies would benefit from more collaboration and coordination, participants said. Under current practices, “ISOs and RTOs do not do

regional planning and states are not working together in an inter-state way,” a speaker said.

Participants said Biden Administration leadership would help inspire the key stakeholders to work together. One suggestion was to create an interagency working group that would consist of leadership and expertise from DOE, DOI, and FERC, along with state energy offices, regional ISOs and the offshore wind industry.

While a number of solid analyses of the challenges of cost-effectively upgrading the existing onshore electric grid to accommodate 30 GW or more of new offshore wind energy have been done over the last few years, participants said a substantial amount of additional analysis is needed. “Lessons learned in Europe should be examined,” one speaker said. “Barriers between New England, New York, PJM, and North Carolina should be broken down to think inter-regionally and use the offshore system to complement the onshore system.” Another participant said, “Success (on this question) means a drastic expansion and overhaul of transmission.”

FERC Action Should Address Inter-state and Inter-regional Planning. One speaker said the limitations of FERC Order 1000 is a major obstacle, as it has been implemented unevenly throughout its history. There was lack of agreement on whether FERC should update FERC Order 1000 or undertake a new



rulemaking, or even create a new, independent transmission planning entity. Nonetheless, there was consensus that FERC should act to resolve transmission hurdles.

“When we’re talking about policies to move forward thinking on offshore transmission, a FERC clarification that results in the ISOs and the RTOs working together and with states to engage in interregional planning is going to be key,” one participant said. Especially welcome would be a FERC rulemaking that addresses equitable cost allocation and removes barriers to the cost-effective interconnection of offshore wind facilities and related energy storage systems. FERC would likely appreciate Biden Administration support for such action as well as increased coordination among the offshore wind states, one speaker

added.

Transmission solutions will be needed on the west coast as well as on the east coast. “A FERC clarification that could address the current blockage due to the lack of direction from the California ISO would also be helpful,” a speaker said.

Plan for Public Opposition to Siting Onshore Transmission Infrastructure.

Participants noted that siting of transmission has become increasingly difficult, particularly in the Northeast, even as transmission projects are essential to achieving climate change goals. The group accepted that public opposition to siting new onshore transmission infrastructure should be anticipated and that government and industry need to plan ahead for how to listen to, understand and address community concerns.

Building on the Roundtable: Next Steps

The Labor Energy Partnership's inaugural document, *Energy Transitions: The Framework for Good Jobs in a Low-Carbon Future*, summarizes ten key areas of analysis that the LEP believes will help guide a multi-decadal effort to create a clean energy economy that is more equitable for all Americans and can be sustained across our diversity of political views, regional differences, and economic challenges for the next 30 years. This document identifies ten key areas that are critical to creating a unified path forward for the implementation of climate solutions in the United States and require unbiased analysis that identifies challenges, opportunities, needed investments, and policy options.⁴

Included in these ten critical elements are three that are directly relevant to the focus of the March 26th roundtable on the future of offshore wind energy in the U.S.:

1. A priority energy infrastructure analysis that provides a roadmap for key energy infrastructure needs, financing mechanisms, and approval

and permitting pathways;

2. Policies needed to site and permit new electricity transmission projects in the near-term;
3. An analysis of the offshore wind supply chain, including its raw material requirements, manufacturing technologies, and geographical differences between the East Coast, West Coast, and Great Lakes' resources and policy options to encourage domestic development.

The major points captured from our roundtable in themselves constitute informed and robust guidance to Federal, regional and state policy makers and we hope they will be duly considered in the spirit with which we offer them here. In addition, the LEP will apply what we learned from the roundtable to identify new analysis on each of those three topic areas and to design and recommend public policy solutions.

We welcome the opportunity to build on

4. See: <https://static1.squarespace.com/static/58ec123cb3db2bd94e057628/t/6011a8b83d1c6a79cf0b27fe/1611770049298/Energy+Transitions.pdf>



the initial roundtable engagement to consult the cross-sector and cross-discipline leadership that participated on March 26th and work together to identify and advance policy solutions that ensure a robust domestic supply

chain and thoughtfully designed transmission system are central to the success of the U.S. offshore wind industry over the next two decades and beyond.

