

CREATING GOOD JOBS, A CLEAN ENVIRONMENT, AND A FAIR AND THRIVING ECONOMY

February 12, 2024

Director Liz Klein
U.S. Bureau of Ocean Energy Management
U.S. Department of the Interior
1849 C Street, N.W.
Washinton, D.C. 20240
Submitted Electronically

Re: Atlantic Wind Lease Sale 10 for Commercial Leasing for Wind Power Development on the U.S. States Central Atlantic Outer Continental Shelf-Proposed Sale Notice [BOEM-2023-27200]

Dear Director Klein:

On behalf of the BlueGreen Alliance (BGA), our partners, and the millions of members and supporters they represent, we thank the U.S. Bureau of Ocean Energy Management (BOEM) for the opportunity to comment on the Proposed Sale Notice (PSN) for Commercial Leasing for Wind Power Development on the U.S. States Central Atlantic coast.

The mission of BGA is to unite labor unions and environmental organizations to solve today's environmental challenges in a way that creates and maintains quality jobs and builds a clean, prosperous, and equitable economy. Offshore wind energy presents a unique and integral opportunity to accomplish this mission if developed in a way that uplifts the middle class with high-road employment practices, equitable career pathways, maximum job creation, and creation of a domestic supply chain. We appreciate BOEM's concerted effort to achieve the Biden-Harris administration's national goal of deploying 30 gigawatts (GW) of offshore wind energy by 2030 and set us on a pathway to continuously scale up the U.S. offshore wind industry in the coming decades, including in the Outer Continental Shelf (OCS) offshore Virginia and Delaware.

We acknowledge the Biden administration's plan to hold an additional lease sale in the Central Atlantic in 2025. The states in this region will require more offshore wind leasing to meet their clean energy goals and we hope to see the next steps towards identifying new wind energy areas and another lease sale proceed soon, which could benefit both Maryland and North Carolina. We would also like to see BOEM work with the U.S. Department of Defense and others to look at expanding Call Area D.

As our nation's largest untapped clean energy resource, offshore wind energy will play a major role in achieving our nation's climate goals. And, a nascent U.S. industry, this is a pivotal moment in ensuring that offshore wind plays a major role in achieving our nation's equity, innovation, economic, and national security goals as well. As BOEM works to advance the U.S. offshore wind industry, we urge the agency to utilize its authority under the Outer Continental Shelf Lands Act (OSCLA) to include consideration of methods that can be deployed to:

- Maximize the creation of quality, high-paying, union jobs over projects' lifetime;
- Expand U.S. manufacturing along robust domestic, regional, and local supply chains;
- Deliver community benefits with attention to improving access to disadvantaged communities;
- Protect fisheries, wildlife, and marine ecosystems by utilizing data sharing, the best available science and data, and adaptive management strategies to avoid, minimize, mitigate, and monitor environmental impacts; and
- Are guided by robust and inclusive stakeholder engagement, including labor organizations, historically underrepresented or disadvantaged communities, low-wealth communities, communities of color, impacted ocean users, and government-to-government consultation with Tribal nations.

The White House has identified the offshore wind industry as a catalyst for spawning new supply chains, strengthening existing capabilities, and creating tens of thousands of good-paying union jobs. Executive Order 14008, Tackling the Climate Crisis at Home and Abroad, states that it is the policy of the united States "to organize and deploy the full capacity of its agencies to combat the climate crisis to implement a government-wide approach that reduces climate pollution in every sector of the economy; increases resilience to the impacts of climate change; protects public health; conserves our lands, waters, and biodiversity; delivers environmental justice; and spurs well-paying union jobs and economic growth, especially through innovation, commercialization, and deployment of clean energy technologies and infrastructure."

To ensure these imperatives are met, in summary, BOEM must:

- Stipulate that lessees will enter into project labor agreements (PLAs) covering the
 construction of all renewable energy facilities within the BOEM lease and labor peace
 agreements (LPAs) covering the operations and maintenance work involved in those
 facilities;
- 2. Stipulate and incentivize that lessees will make every effort to source project materials and components domestically and submit a supply chain statement of goals and supplier engagement plan that includes utilization of a supplier code of conduct; and
- 3. Strengthen provisions regarding the use of bidding credits in a multiple factor auction to ensure that investments result in the highest benefit to taxpayers by supporting both the creation of a high-road, domestic offshore wind supply chain and a unionized domestic workforce that provides equitable employment opportunities for disadvantaged and Justice40 communities.

Lease Issuance Procedures

For auction processes and rules, BGA recommends that BOEM implements a more consistent process and clarifies which specific elements of auctions will be customizable based on circumstances and how they will be evaluated. Certain stipulations, such as PLAs, domestic content utilization, labor peace agreements, environmental justice, and environmental protection, should remain consistent for all auctions as they are clear national imperatives related to the equitable creation of safe, accessible, high-quality union jobs; the protection of and benefits distribution to Justice40 communities; and the safeguarding of natural resources including fisheries, wildlife, and benthic habitat. Employing consistent standards can help to create more certainty for the offshore wind industry, particularly those related to domestic manufacturing. According to the National Renewable Energy Laboratory (NREL) a domestic supply chain that can supply 4–6 GW of projects per year will likely require an investment of at least \$22 billion in ports, large installation vessels, and manufacturing facilities and will take between 6-9 years to develop. NREL also projects as many as 10,000 full-time equivalent jobs in major-component manufacturing facilities by 2030 with up to five times as many opportunities for supplier jobs, all of which would span the country.

BOEM has broad discretion under the OCSLA to require lease and plan terms, conditions, and stipulations. Subsection 8(p) of the OCSLA authorizes the Secretary of the Interior, "in consultation with the Secretary of the Department in which the Coast Guard is operating and other relevant departments and agencies of the Federal Government" to "grant a lease, easement, or right-of-way on the outer continental shelf for activities... if those activities... produce or support production, transportation, or transmission of energy from sources other than oil and gas." Subsection 8(p)(4) of the OCSLA sets forth certain requirements that the Secretary "shall ensure" are met. These requirements include, in part: (1) protection of the environment; (2) safety; (3) expeditious and orderly development; (4) protection of national security interests of the United States; and (5) a fair return to the United States for any lease, easement, or right-of-way under this subsection. The OCSLA establishes a clear public benefit floor for these programs beyond providing private access to public resources. OCSLA affirms this mandate in Subsection 8(p)(6) which states, "The Secretary shall require the holder of a lease, easement, or right-of-way granted under this subsection to...comply with such other requirements as the Secretary considers necessary to protect the interests of the public and the United States."

The following recommendations for lease stipulations and bidding credits in a multiple factor auction will contribute to several of the requirements enumerated in the OCSLA, including (1) protection of the environment, (2) national security, (3) a fair return to the United States, (4) safety, and (5) expeditious and orderly development. Since BOEM has an interest in seeing a monetary return comparable to a private entity, leases are a form of market participation. V, VI, VIII

Furthermore, the Ninth Circuit has stated "that a state or local governmental entity may have policy goals that it seeks to further through its participation in the market does not preclude the [market participation doctrine's application, so long as the action in question is the state's own market participation."

It is well within BOEM's authority to implement the following recommendations. If implemented, these recommendations will help to alleviate key challenges that the industry has named as investment risks, such as stakeholder challenges, construction delays, cost overruns, legal complications, supplier constraints, demand for a specialized workforce, and lack of incentives around equity and sustainability. ix

Recommendations for Lease Stipulations

PLAs

BOEM must stipulate that lessees enter into PLAs covering the construction of renewable energy projects on the OCS.

PLAs are a proven way to ensure workers in the construction sector have access to the benefits and protections of unions. In the Information Memorandum documenting the rationale for certain provisions of the New York Bight Final Sales Notice, BOEM explained that PLAs promote safety and the expansion of a workforce of well-trained personnel which is important since operations on the OCS can be hazardous and complex. In addition to PLAs supporting the facilitation of both on-the-job training and training opportunities for new apprentices, BOEM explains that "PLAs typically contain provisions directly addressing safety, along with requiring training as both the substantive aspects of a job and the management of safety aspects on the job" and "promote the standardization of training and safety protocols for offshore work."* BOEM concluded that "the greater certainty provided by PLAs' no-strike components and established dispute resolution procedures may facilitate the timely completion of large offshore construction projects," and help ensure they meet statutory requirements for "expeditious and orderly development."*

President Biden's Executive Order 14063, *Use of Project Labor Agreements for Federal Construction Projects*, issued February 4, 2022, also underscores the benefits of utilizing PLAs for large-scale construction projects. Specifically, EO 14063 §1b states:

"Project labor agreements...provide structure and stability to large-scale construction projects...[and] avoid labor-related disruptions by using dispute-resolution processes to resolve worksite disputes and by prohibiting work stoppages, including strikes and lockouts. They secure the commitment of all stakeholders on a construction site that the Project will proceed efficiently without unnecessary interruptions."xii

PLAs have been demonstrated to reduce project costs for developers, save public funds in the long run, and produce increased economic benefits for the local community. In addition, PLAs often lead to safer working conditions as a result of the more skilled workforce that union training

programs provide.xiv A 2021 Canadian study found that unionization in institutional, commercial, and industrial construction, maintenance, and repair work was associated with a 25% lower lost-time injury rate, 23% lower incidence of musculoskeletal lost-time injury claims, and 16% lower incidence of critical lost time injury claims.xv Data also suggests that accidents in the construction industry are more common in states with low-road contractors.xvi Union firms are also 16% less likely to report difficulty in filling open positions, 13% less likely to fail in retaining skilled workers and 21% less likely to report project delays due to retention issues,xvii which is key to timely and efficient deployment during construction labor shortages.

PLAs allow for the incorporation of intentional measures to create accessible pathways to long-term union careers for workers of color, people who live in environmental justice areas, workers displaced by the transition away from fossil fuels and those who have historically been excluded or marginalized. In general, Black and Latinx workers who are union members are paid 29% and 37% more than those not covered by a collective bargaining agreement.**viii A PLA ensures that all workers performing a specific trade or craft receive the same level of pay and benefits regardless of race, religion, or gender.

LPAs

BOEM must stipulate that lessees and their subcontractors enter into LPAs with applicable unions for work involving the operations and maintenance of offshore wind projects on the OCS.

LPAs—or labor harmony agreements—are agreements between employers and unions in which one or both sides agree to waive certain rights under federal law with regard to union organizing and related activity. Similar to PLAs, LPAs can help achieve OCSLA's goals of safe offshore wind development utilizing well-trained personnel and provide greater certainty against strikes or lockouts for the duration of the operations by establishing mutual concessions between unions and employers and by providing clarity in dispute resolution processes. BOEM's leases include provisions for ongoing payments to the federal government from proceeds on electricity generated by those facilities. By requiring that developers, upon request, enter into LPAs regarding operations and maintenance of offshore wind projects, BOEM can help to ensure their proprietary interest in maintaining the revenue stream from these leases is protected by ensuring there is a well-trained workforce to keep the projects up and running most efficiently. As with PLAs, LPAs can help ensure safer more efficient workplaces and promote diversity, equity, and inclusion in the sector.

Ensuring workers have the free and fair choice to join a union also has equity implications. Across sectors, the U.S. Department of Labor (DOL) reports that unions raise wages for all workers and the U.S. Bureau of Labor Statistics reports that non-union workers earn just 83% of what unionized workers earn. XXI,XXIII It's no wonder that union approval is at its highest since 1965, with 68% approving of labor unions and even higher numbers of support among young people and people of color. XXIIII The White House report on Worker Organizing and Empowerment says that

support for a union increases to 74% for workers aged 18 to 24, 75% for Hispanic workers, 80% for Black workers, and 82% for Black women workers. The report also contains guidance for how unions advance equity for underserved populations, including greater transparency around pay and higher wages, greater job security, and increased access to career pathways for women and workers of color. XXV

Domestic Manufacturing

BOEM must stipulate a preference for domestic content utilization at a percent that is unique to the circumstances of the region corresponding to the lease auction and driven by data in order to create a fair return to the United States, protect national security, and ensure expeditious and orderly development.

A domestic offshore wind supply chain is essential to ensuring the successful construction and operations of offshore wind projects on the OCS. As stated in the Decision Memorandum on the New York Bight Final Sales Notice:

"The U.S. offshore wind industry is currently highly dependent on international supply chains. Most components of wind facilities that are planned for offshore the U.S. must be manufactured overseas and shipped to the U.S. xxvi This introduces uncertainty and risk in the construction and operation of U.S. offshore wind facilities. Foreign suppliers may be subject to impediments within their own countries, such as work stoppages, taxing or legal constraints, or effects of political disruptions, and must ship their products long distances to the U.S., potentially resulting in increased costs or delays. Further complicating matters, Europe has its own aggressive offshore wind targets (450 gigawatts [GW] by 2050xxvii), in addition to those of the U.S. (30 GW by 2030), which could potentially strain the international supply chain.xxviii Foreign suppliers may have trouble meeting the demand from both European and U.S. developers, and/or may choose to, or be required to, provide their goods to developers in their own countries.

Reliance on foreign providers of offshore wind project components creates vulnerability for the U.S. because the offshore wind industry is one element of the nation's diverse energy sector, which is critical to the national security interests of the United States, xxix powering transportation, communications, finance, and government infrastructure. Pursuant to OCSLA § 8(p)(4)(F) (43 USC 1337 (p)(4)(F)), offshore wind leasing must be carried out in a manner that provides for protection of the national security interests of the U.S. To help protect the national and energy security of the U.S., it is important to ensure that the offshore wind industry can access the materials it needs without having to rely on foreign suppliers because of the risks of disruption, delay, and increased expense that come with such reliance. The offshore wind industry can make significant contributions to the U.S.'s energy security and help ensure a secure and reliable flow of energy to the nation, thereby enhancing the national energy portfolio. Enhancing domestic production of offshore wind project components serves to protect the offshore wind

industry from international supply chain risks, allowing it to provide the nation with critically needed energy which, in turn, protects U.S. national security."xxx

Establishing a domestic content preference would help create more certainty for manufacturing companies looking to enter into the offshore wind supply chain, further contributing to the goals of national security, expeditious and orderly development, and fair return to the United States. Lenders or manufacturers that finance construction projects from their own balance sheets typically require a stable five to 10-year order book to invest in a new manufacturing facility, port, or vessel. Suppliers prefer a predictable longer-term pipeline to better justify the up-front investment in construction, equipment, training, and certification. **xxii* Furthermore, most offshore wind component manufacturing facilities can take up to five years for permitting and construction, so establishing this preference in the lease would support early action towards standing up new facilities. **xxxii**

It is evident that utilization of domestic content in offshore wind projects is imperative for reaching our federal goals. The March 2022 offshore wind energy supply chain report by the NREL states that supply chain constraints caused by global bottlenecks are one of the greatest risks for achieving the national offshore wind energy target.**

The modeling in the report also shows that average and maximum job creation utilizing 25% domestic content versus 100% domestic content in offshore wind projects results in a difference of approximately 30,000-40,000 jobs from 2023-2030.**

In addition, across renewables, even a modest increase in manufacturing produces an additional 45,000 good manufacturing jobs per year and an additional \$5 billion in wages through the 2020s, as the United States continues greening its electricity grid.**

Further, domestic content requirements are unlikely to influence wind power capital costs.**

And, as emphasized in a number of President Biden's Executive Orders, national security is also protected by utilizing domestic content.

Recent global events have made it abundantly clear that our national security is strongly tied to our energy security, to which domestic manufacturing plays a critical role. U.S. Department of Energy (DOE) assessments have shown that several clean energy technologies rely on insecure supply chains with geopolitical risks such as social instability, unfair trade practices, or human rights issues, such as child labor or forced labor. Furthermore, the DOE and the North American Electric Reliability Corporation (NERC), jointly-commissioned a report assessing risks to U.S. electricity generation and distribution infrastructure. The summary of the report observed that the "bulk power system is dependent on long supply chains, often with non-domestic sources and links" and determined that the "increased reliance on foreign manufacturers, with critical components and essential spare parts manufactured abroad (e.g. HV transformers)" means the "supply chain itself represents an important potential vulnerability."xxxviii The report recommends that "efforts should be considered to bring more of the supply chain and manufacturing base for these critical assets back to North America."xxxxix

Strengthening the nation's supply chains can result in environmental benefits as well. Energy intensive manufacturers in the United States are relatively clean compared to competitors. As one

example, "[s]teel exporters to the U.S. emit 50-100+% more CO_2 emissions per ton than U.S. producers on average." Use of domestic content can also reduce shipping distance, and thus emissions resulting from long-distance maritime transportation. The International Maritime Organization (IMO) estimates that maritime shipping generated 1 billion tons of greenhouse gases per year from 2007-2012. Another study estimates that maritime shipping emissions are forecasted to rise between 35% and 210% by 2050. xli

Supporting U.S. manufacturing also has equity implications. Data shows that decline in U.S. manufacturing has been devastating to the middle-class, especially for Black and Hispanic workers and other workers of color who disproportionately do not hold college degrees and who experience discrimination limiting access to better-paying jobs. Manufacturing wages are substantially larger for median-wage, non-college-educated employees, with Black workers in manufacturing earning 17.9% more than in non-manufacturing industries; Hispanic workers earning 17.8% more, Asian American Pacific Islander (AAPI) earning 14.3% more; and white workers earning 29% more. Hiii

BOEM must stipulate a supply chain statement of goals that includes a detailed supplier engagement plan to achieve those goals. BOEM must specify that the supplier engagement plan should include (1) previous and best-effort plans to contract domestic tier 1, tier 2, tier 3, and tier 4 suppliers that includes consultation with manufacturing unions; (2) component specifications and details about the opportunity to the extent available; (3) commitment to freedom of association without employer involvement; and (4) a supplier code of conduct that will be required of all component suppliers, contractors, and subcontractors on all tiers that includes health and safety committees; equitable access to jobs and inclusion of disadvantaged workers; competitive wages; and where applicable, training programs that are industry recognized, have stackable credentials, are portable, and accredited.

In addition to supplier preferences for a longer-term pipeline to justify up-front investment in new manufacturing facilities, there is the added challenge of uncertainty surrounding the types of certifications required to qualify as offshore wind energy suppliers. As the agencies responsible for overseeing project development and certification, BOEM and the U.S. Bureau of Safety and Environmental Enforcement (BSEE) should ensure that offshore wind developers are providing the necessary information for U.S. suppliers to become involved in the offshore wind supply chain in order to achieve the goals as outlined in the previous section. Furthermore, interviews with tier 1 and tier 2 offshore wind manufacturers have indicated that, in many cases, the location of next-generation factories will be driven by the ability to produce components that are cost competitive on the global market, built with high quality and safety standards, and contribute prevailing wages and robust training programs to the manufacturing workforce. And, currently there are insufficient incentives for companies to ensure that positive impacts of supply chain activities will benefit the local community. NREL suggests that to ensure the offshore wind supply chain reaches its potential to revitalize and uplift port and near-port communities equitably requires intentional planning, long-term investments, and incorporating the concerns and needs of impacted

communities. XIV Establishing these standards in the lease is the best way to ensure that project planning prioritizes the creation of a high-road and equitable offshore wind supply chain from the very start.

The 2022 NREL report also suggests that addressing the significant challenges associated with developing a domestic offshore wind energy supply chain will require coordination between a range of stakeholders, including federal and state governments, project developers, original equipment manufacturers (OEMs), tier 2 and 3 suppliers, organized labor, and community representatives, each of whom will have a unique role to play in developing the domestic supply chain.xivi The authors of the NREL report coordinated with DOE and the National Offshore Wind Research and Development Consortium to host a 2-day workshop from states, the federal government, research agencies, industry, and economic development agencies in order to initiate conversations between critical supply chain decision makers and begin developing solutions. One key finding from the workshop was that the federal government can play a valuable role in coordinating between regional supply chain clusters.xivii As the lead regulatory agency, we urge BOEM to establish a process within the lease that supports such coordination, and a detailed supply chain statement of goals and supplier engagement plan could create an effective framework to guide coordination.

BOEM also has a role to play in ensuring that supplier requirements are made clear to make opportunities accessible to existing companies. NREL describes that although some skill sets and equipment are transferable from existing industries, offshore wind OEMs have lofty requirements for their supporting suppliers. They report the necessity of these requirements to lower the risk of expensive repairs in the harsh ocean environment, to maintain safety standards during installation, and reduce the likelihood of project delays if a supplier cannot deliver products on schedule due to quality for financial instability issues. To meet these requirements, most tier 2 and 3 suppliers will have to invest in new equipment, training, and/or certifications to qualify as an offshore wind supplier.xiviii Furthermore, there is a lack of understanding of the different certifications required, what it takes to qualify, and which certifications to apply to different scopes of work since there are no consistent certification standards across the supply chain.xlix Although it is not the role of BOEM and BSEE to provide this education to suppliers, it is their role to ensure that standards and certifications are made clear and that lessees are making this information accessible to U.S. suppliers. Establishing these requirements in the lease agreement is the most effective way to ensure that information exchange is effective and transparent. In the New York Bight Final Sales Notice Decision Memorandum, Amanda Lefton explained that the OCSLA requirement of well-trained personnel and for OCS activities to be carried out in a manner that provides for safety (OCSLA § 8(p)(4)(A)) would be furthered by use of a PLA, since PLAs typically contain provisions directly addressing safety, training requirements, and management of the safety aspects of a job. Further, the Memorandum notes that "offshore operations are complex and can be hazardous" and that "standardization could allow for consistency of expectations among projects, leading to increased safety." Similar to the complex and hazardous nature of offshore operations, the manufacture of the major components of offshore wind

projects is also complex and hazardous, involving the fabrication of components that are larger than a football field. When it comes to manufacturing, a supplier code of conduct is the best way to ensure the maintenance of best practices that result in well-trained personnel, safety, and the orderly and expeditious development of offshore wind projects that will result in the availability of the necessary components to construct such projects.

Multiple Factor Auction and Bidding Credits

BGA supports the implementation of multiple factor auction through the use of bidding credits. In utilizing this format, it is imperative that there are adequate requirements and directives for utilizing the bidding credits to ensure that these investments contribute to orderly development, as well as safety, national security, and a fair return to the United States. To achieve this, we submit the following recommendations.

BOEM must have eligibility criteria that includes the agreement to consult with relevant labor unions, community groups, and industry representatives to ensure use of the bidding credit is applied equitably, results in high-quality job creation and accessible pathways to family-sustaining careers, as well as commitment to make data-driven investments designed to fill critical gaps in achieving a high-road, equitable, and environmentally responsible offshore wind industry.

BOEM has broad authority to address environmental, economic, and coastal zone impacts resulting from development on the OCS, including through the use of a multi-factor bidding process [43 U.S.C. §§ 1332(3), (4); 30 C.F.R. § 585.220(a)(4)]. BOEM should exercise that authority in a manner that is data-driven and consistent with relevant executive orders such as EO 14008, Tackling the Climate Crisis at Home and Abroad; EO 13985, Advancing Racial Equity and Support for Underserved Communities Through the Federal Government; EO 14017, America's Supply Chains; and EO 14025, Worker Organizing and Empowerment.

BOEM should also ensure that the process to qualify for bidding credits is clear and details specific qualification criteria and an evaluation process. In previous auctions, BOEM has required that bidders submit their conceptual strategy with a Bid Financial Form at the time of their bid deposit. BOEM should require that any conceptual strategy submitted to qualify for bidding credits be made publicly available and include details for development of a community benefits plan that commits to consultation with community stakeholder and labor unions to ensure credits result in quality jobs and equity. The DOE's Funding Opportunity Announcement (FOA) for Regional Hydrogen Hubs Community Benefits Plans can serve as a model for the information that BOEM requires in their conceptual strategies. The FOA states that projects funded under the FOA are expected to include community benefits plans to: (1) support meaningful community and labor engagement; (2) invest in America's workforce; (3) advance diversity, equity, inclusion, and accessibility; and (4) contribute to the president's goal that 40% of the overall benefits of certain federal investments flow to disadvantaged communities (the Justice40 Initiative).

BOEM must designate a bid credit specifically for supporting the development of a supply chain for offshore wind manufacturing, requiring the use of funds to be consistent with our above recommendations for stipulations regarding domestic manufacturing.

Consistent with, and in support of, the stipulations recommended above, we urge BOEM to establish in the regulations a supply chain bidding credit to be phased out once a robust offshore wind domestic supply chain is developed. BOEM must ensure that bidding credit investments in supply chain facilities include a requirement that suppliers utilize a supplier code of conduct that includes:

- 1. Commitments to freedom of association without employer involvement;
- 2. Use health and safety committees;
- 3. Workplaces free from harassment and discrimination;
- 4. Equitable access to jobs and inclusion of disadvantaged workers;
- 5. Family sustaining wages; and, where applicable,
- 6. Training programs that are industry-recognized—by both employers and labor unions—have stackable credentials, are portable, and accredited.

These requirements are essential to achieve the goals of OCSLA, including safety, fair return to the United States, as well as the goals in various executive orders to increase the resiliency of the nation's supply chains, support workers organizing and empowerment, and advance racial equity and support for underserved communities. Relatedly, BOEM should also require that manufacturers receive funds from the supply chain bidding credit to negotiate a community benefit agreement with any host communities of manufacturing facilities that includes access to jobs. Finally, we urge BOEM to require lessees utilizing the supply chain bidding credit to collect information related to the quantity and quality of jobs to be created (i.e., pay benefits, classification as employees, permanent jobs, predictable schedules, etc.) from bidding credit recipients and require lessees to submit this information in the documentation of the verifiable actions taken to satisfy the bidding credit requirements.

BOEM must designate a bid credit specifically for supporting the workforce training that would provide for safety, more efficient operations, and a fair return to the United States.

BOEM should require that bidders' strategies for investing in workforce training programs include consultation with labor unions and community groups to ensure the bidding credits result in increasing equitable access to safe, quality jobs that will provide for more efficient operations. To qualify for the workforce training bidding credit, BOEM should require that lessees utilizing the credit invest in training programs that are portable, accredited, have stackable credentials, include safety training standards and disaster response measures, and are industry recognized; and invest in programs that prioritize the training of Justice40 communities, as well as disadvantaged and displaced workers and provide wrap-around support services to support their enrollment. Disadvantaged workers include workers dislocated from fossil-fuel jobs, workers of color, women, formerly incarcerated workers, workers who live in environmental justice communities, workers

with disabilities, and veterans. To qualify for the credit, BOEM should also require that workforce training investments provide the option to enter into an memorandum of understanding with community stakeholders, unions, and companies and other strategies to support recruitment, retention, interviews upon completion, and successful placement of graduates in apprenticeships or internships.

Safety Management Systems (SMSs)

Safety is a key mandate in the OCSLA and BOEM must work to ensure that requirements for SMSs protect the health and safety of workers and their ability to report hazards and violations on the job without fear of discrimination or retaliation. According to the U.S. Occupational Safety and Health Administration (OSHA), the major components of an SMS are management commitment and employee participation; worksite analysis; hazard prevention and control; and safety and health training.\(^{\mathbb{I}\mathbb{V}}\)

While workplace safety is the employer's responsibility, workers and their representatives must have a seat at the table. Ideally this takes the form of a joint labor-management committee on safety and health where workers, not representatives of the company, select the worker representatives. As part of its requirements for an SMS, BOEM must ensure that developers commit not to retaliate or discriminate against any employee or contractor who raises a health and safety concern on the job.

OCSLA and Presidential Executive Orders

The above recommendations are in alignment with the goals of OCSLA, recent executive orders, and longstanding practices. In achieving the requirements of 8(p)(4) of the OCSLA, the Department of the Interior's principal deputy solicitor concluded that the department has great discretion of interpretation and must strike a rational balance. BGA agrees that \S 8(p)(4) of the OCSLA grants the department a "broad statutory mandate," reserving for the secretary discretion as to the manner in which to achieve the requirements enumerated therein. Ivi

In addition to the authority granted by the U.S. Congress, the president also has authority to direct requirements on leases of the OCS and notable precedent exists for the president to do so. Current BOEM leases of the OCS include lease terms mandated by presidential executive order, specifically E.O. 11246, which prohibits employment discrimination and establishes affirmative action requirements for nonexempt federal contractors and subcontractors. Viii Article II, § 1 of the U.S. Constitution provides that "executive Power shall be vested in" the president. Such power gives the president the right, in the absence of an express congressional declaration to the contrary, to control the terms upon which public lands or property may be sold, leased, or used by private individuals or entities. Viii

A presidential executive order can direct the terms of leases entered into under the OCSLA. In fact, in Crown Central Petroleum Corp. v. Kleepe, 424 F.Supp. 744 (1976), a U.S. federal court affirmed that a lessee of a lease agreement entered into under the authority of the OCSLA is a government contractor under the terms of E.O. 11246 and therefore subject to its directives. This proposition, that leases of public lands by the federal government are "contracts" and lessees are "contractors" has repeatedly been affirmed. ^{lix}

Recent executive orders commit to revitalizing U.S. supply chains and creating well-paying union jobs. Specifically, EO 14008 § 204. states:

"It is the policy of my Administration to lead the Nation's effort to combat the climate crisis by example—specifically, by aligning the management of Federal procurement and real property, public lands and waters, and financial programs to support robust climate action. By providing an immediate, clear, and stable source of product demand, increased transparency and data, and robust standards for the market, my Administration will help to catalyze private sector investment into, and accelerate the advancement of America's industrial capacity to supply, domestic clean energy, buildings, vehicles, and other necessary products and materials."

EO 14008 § 206, President Biden further directed all agencies to "adhere to the requirements of the Made in America Laws in making clean energy, energy efficiency, and clean energy procurement decisions" consistent with Executive Order 14005, Ensuring the Future Is Made in All of America by All of America's Workers (Jan. 25, 2021).

Lease and plan terms, conditions, and stipulations that require the use of domestically produced materials would be the most "immediate, clear, and stable source of product demand" that could be deployed to "catalyze private sector investment into, and accelerate the advancement of America's industrial capacity to supply, domestic, clean energy" and the "necessary products and materials."

Further, the January 27, 2021 Executive Order 14008 *Tackling the Climate Crisis at Home and Abroad* includes the goal of doubling offshore wind by 2030 while creating well-paying union jobs and economic growth; delivering environmental justice; an equitable, clean energy future; and ensuring robust protection for our lands, waters, and biodiversity.

Requirements of the Outer Continental Shelf Lands Act

Stipulating the use of PLAs and domestic content paired with bidding credits that invest in offshore wind manufacturing facilities and training programs contribute to several requirements of the OCSLA: coordination with relevant federal agencies, protection of national security interests of the United States, worker safety, and ensuring a fair return to the United States for any lease, and protection of the environment.

Coordination with relevant Federal agencies

In its executive order, *Tackling the Climate Crisis at Home and Abroad*, the Biden administration called for a whole of government approach to the climate crisis that will "create well-paying union jobs to build a modern and sustainable infrastructure." The executive order further emphasized that "[t]his Nation needs millions of constructions, manufacturing, engineering, and skilled-trades workers to build a new American infrastructure and clean energy economy." In March 2021 the White House announced in an offshore wind fact sheet that it would take coordinated steps to support rapid offshore wind deployment in a way that would invest, "in American infrastructure to strengthen the domestic supply chain." Ixiii

All of these statements make clear that it is the policy of the United States to ensure that all agencies should take all possible actions to develop clean energy technologies and combat climate change while also strengthening domestic supply chains. Given the whole-of-government approach, the inclusion of a domestic content preference as a lease stipulation supports the goal of increased coordination with relevant agencies as directed by OCSLA.

Without strong action to support use of domestic content in offshore wind developments, the United States may miss out on the exact kind of manufacturing jobs and supply chain growth the administration is actively pursuing. In 2013, "no domestic manufacturing facilities [were] currently serving the offshore wind market." And the major parts and components of the nation's first offshore wind farm at Block Island—with the exception of the foundation—were manufactured outside the United States. Ixiv

Fair Return to the United States

Under OCSLA, BOEM must consider how any leases will result in a fair return for the United States. The U.S. Legal Dictionary defines fair return on investment as "reasonable return on the investment of a public utility, determinable only by the exercise of sound judgment and common sense, being a matter of fair approximation, not capable of exact mathematical demonstration." Requiring use of domestic content can help secure fair return to the United States for any lease associated with wind energy development offshore California by maximizing the positive economic impacts of offshore wind development.

Securing a domestic offshore wind supply chain is also essential for ensuring that offshore wind projects can be deployed effectively and on time. The March 2022 offshore wind energy supply chain report by NREL states that supply chain constraints caused by global bottlenecks are one of the greatest risks for achieving the national offshore wind energy target. The modeling in the report also shows that average and maximum job creation utilizing 25% domestic content versus 100% domestic content in offshore wind projects results in a difference of approximately 30,000-40,000 jobs from 2023-2030. [xvii]

A failure to develop a domestic supply chain for offshore wind components could result in delays in the construction and operations of offshore wind projects due to bottlenecks in the global offshore wind supply chain detailed in a previous section, preventing expeditious and orderly development and a fair return to the United States. It would mean fewer jobs and less investment, and thus a lesser return to the United States. for offshore wind leases. Across renewables, even this modest increase in manufacturing produces an additional 45,000 good manufacturing jobs per year and an additional \$5 billion in wages through the 2020s, as the United States continues greening its electricity grid. Deviii These increased benefits are also not likely to come at additional cost. Domestic content preferences are unlikely to influence wind power capital costs. Devix In the rare occurrence that domestic content requirements would increase project costs or that unavailability of any component would slow development, waivers can be issued. Consistent with application of Buy America policy in other sectors, waivers are also issued for domestic content requirements if domestically manufactured materials or manufactured goods are not available in the United States, would result in unreasonable price increases for the project, or the waiver issued is in the public interest.

Methods for achieving a fair return to the United States also have significant equity implications. PLAs can ensure all workers benefit from well-paying jobs by including targeted hire provisions to provide opportunities for workers of color, women, veterans, formerly incarcerated individuals, indigenous people, economically disadvantaged communities, communities heavily impacted by climate change or climate change policies, and many others. These communities may be targeted through contracting requirements, hiring requirements, or the use or establishment of preapprenticeship programs. Ideally, these provisions establish long-lasting pipelines for members of disadvantaged communities to access good jobs and careers in the clean economy.

Decline in union density is cited as a reason for growing economic inequality, growing wage gaps for women and workers of color, and declining voice in our democracy for working class people. As noted previously, the decline in U.S. manufacturing has been devastating to the middle-class, particularly for workers of color, workers with less than a college degree, and other marginalized groups.

According to data published by the American Iron and Steel Institute, "[t]he iron and steel industry directly employs 386,753 workers who earn \$33.55 billion in wages and salaries annually, an average of \$86,736 per year, while generating \$206.65 billion in output." A 2017 economic analysis found that the industry, both directly, indirectly—through suppliers and services providers—was "responsible for 1.98 million jobs across the nation, paying a total of \$131.26 billion in wages and salaries annually, while generating \$522.59 billion in industry output and \$55.86 billion in federal, state, and local taxes." Ixxi

PLAs can help achieve a fair return to the United States from offshore wind development because they often reduce project cost for developers, save public funds in the long run, and result in increased economic benefits for the local economy. PLAs use a skilled labor workforce and

often avoid labor disputes which allows for a project to move forward with greater efficiency. PLAs also see fewer cost overruns thanks, at least in large part, to the stabilizing effects of PLAs. Ixxiv Workers are also benefited by utilizing PLAs, even nonunion workers, because they ensure that wages and benefits are defined and protected at local standards.

All of this makes clear that stipulating PLAs and the use of domestic content while making appropriate investments in manufacturing facilities and training programs will result in the maximum return to the United States, consistent with BOEM's statutory obligations.

Worker Safety

Workforce training programs are paramount for workers safety in both the offshore and onshore construction of offshore wind farms, which are massive infrastructure projects.

PLAs often lead to safer working conditions as a result of a more skilled workforce. Data suggests that the construction industry is volatile, resulting in a constant loss of human capital. Accidents, including death, are more common in states with low-road contractors. PLAs and high-road labor standards can mitigate construction industry volatility and increase site safety.

Utilizing supplier codes of conduct can also increase safety as they are created for the purpose of ensuring that a company's suppliers adhere to high standards for safe working conditions, fair and respectful treatment of employees, and ethical practices. Research suggests, the best outcomes tend to be when companies have a code of conduct in place and are represented by a union. Research published in the Organizational Science journal showed that suppliers with worker's unions are more likely to be compliant with commitments to adhere to labor codes of conduct. And, the Harvard Business Review found that following an audit, unionized suppliers improved working conditions more than nonunionized suppliers.

Overall, union workers tend to have more safety protections. According to a 2020 Economic Policy Institute report, "Why Unions are good for workers–especially in a crisis like COVID-19", union workers were able to negotiate additional health and safety measures, paid sick leave, and job preservation during the pandemic. They also reported that workers without unions are more likely to be retaliated against or fired for advocating for health and safety protections or wage increase.

This supports our recommendation that union neutrality should be stipulated in a supplier engagement plan as well as bidding credit investments in supply chain facilities. The Biden administration has made efforts to support union organizing and signaled support for union neutrality. The National Labor Relations Board (NLRB) General Counsel Jennifer Ann Abruzzo has asked the NLRB to prohibit employers from requiring employees on paid time to hear its point of view on unions. Abruzzo also issued a brief arguing that the NLRB should reinstate its decision in Joy Silk Mills, which was abandoned in 1971. Reinstating Joy Silk Mills would allow the NLRB to order an employer to bargain with a union if the union demanding to bargain has stated that the majority of employees support the union, unless the employer has a good faith belief that the

majority of employees do not support the union. lxxxii

As President Joe Biden said in his September 8, 2021 remarks in Honor of Labor Unions:

"Government should never be a barrier to workers organizing. It's government's job to remove those barriers. But it's up to workers to make the choice whether to organize or not, whether to form a union or not. And we need to help them understand why that can be the right choice for them." IXXXXIII

Ensuring that employers remain neutral in workers organizing efforts throughout the offshore wind supply chain is related to several of the executive orders referenced in these comments and a key tenet of deploying a high-road industry.

National Security

Under OCSLA, BOEM must consider the protection of national security interests of the United States when establishing renewable energy lease areas in federal waters. Lease criteria that support domestic manufacturers and workers through preferences and incentives help to ensure that the United States. doesn't have to rely on potentially hostile trading partners to supply our energy infrastructure construction needs. In the rebuilding process following Superstorm Sandy which devastated the Mid-Atlantic region nearly a decade ago, Former Homeland Security Secretary Janet Napolitano pointed to the loss of manufacturing capabilities as reason for delay:

"I'll give you a good example: transformers. You know, utilities use these big transformers to supply power. They are all made overseas. We have lost any domestic production whatsoever. And they're big and they're really expensive and they take a long time to move...After Sandy, we needed transformers and that whole process, I think, fed into some of the delay in getting the lights turned back on. That's just one example that we run into..."

A jointly-commissioned summary report of the DOE and NERC, assessing risks to the U.S. electricity generation and distribution infrastructure observed that the "bulk power system is dependent on long supply chains, often with non-domestic sources and links" and determined that the "increased reliance on foreign manufacturers, with critical components and essential spare parts manufactured abroad (e.g. HV transformers)" means the "supply chain itself represents an important potential vulnerability." The report recommends that "efforts should be considered to bring more of the supply chain and manufacturing base for these critical assets back to North America." Ixxxvi

In its executive order on supply chains, the White House stated that "[t]he United States needs resilient, diverse, and secure supply chains to ensure our economic prosperity and national security." The administration specifically cited supply chain risks that "reduce critical manufacturing capacity and the availability and integrity of critical goods, products, and services." As part of this effort to protect economic prosperity and national security, the

administration directed the secretary of energy to "submit a report on supply chains for the energy sector industrial base." Further, in its executive order on climate change, the administration directed agencies to "seek to increase the Federal Government's resilience against supply chain disruptions... [because] such disruptions put the Nation's manufacturing sector at risk, as well as consumer access to critical goods and services."

According to analysis from Brookings, having diverse and nearby suppliers is a key tenet" of supply chain resilience. This will be particularly important in sectors, like offshore wind—which are reliant on foreign suppliers. Currently only about a dozen commitments are in place to establish manufacturing facilities for offshore wind components in the United States. Significant portions of the investment to build offshore wind projects could flow out of the U.S. economy to purchase technology manufactured abroad, rather than supporting the growth of manufacturing and jobs domestically. Imported parts and materials may also raise costs, delay installation, and complicate ongoing maintenance and repair.

High-volume domestic manufacturing, which brings down cost, happens when manufacturers see consistent demand. Strong, long-term policy that drives rapid deployment and provides certainty in a U.S. offshore wind industry is necessary, coupled with policies to require utilization of domestically-manufactured material and direct investment in these facilities and the training of workers who will operate them.

Protection of the environment

Deploying 30GW of offshore wind will require procuring substantial amounts of energy-intensive products like steel and cement. Lease criteria for domestic content preferences and incentives can help reduce the overall impact on the environment from offshore wind projects because U.S. energy intensive manufacturers are relatively clean compared to competitors. As one example, "[s]teel exporters to the US emit 50-100+% more CO2 emissions per ton than US producers on average."xci

Use of domestic content can also reduce shipping distance, and thus emissions resulting from long-distance maritime transportation. The International Maritime Organization estimates that maritime shipping generated 1 billion tons of greenhouse gases per year from 2007-2012. Maritime shipping emissions are forecasted to rise between 35% and 210% by 2050. **Ciii Requiring high-road labor standards such as PLAs and labor peace agreements, and freedom of association can also contribute to environmental protection by ensuring a well-trained workforce that provides for efficient and orderly development, as explained in the sections above.

In addition to labor standards and domestic content, BOEM should ensure the protection of wildlife and the environment during all phases of project development and operations. Environmental protection is a key requirement under the OCSLA and NEPA and rigorous plans

must be in place for offshore wind projects to comply with various state and federal statutes that projects are subject to.

Offshore wind energy must be developed in an environmentally responsible manner that avoids, minimizes, and mitigates impacts to marine life and ocean users, meaningfully engages stakeholders from the start, and uses the best available science and data to ensure science-based and stakeholder-informed decision making. This includes analysis of cumulative impacts and adaptive management strategies, obtaining all necessary and relevant data and identifying all methodologies and indicating when information is incomplete or unavailable, acknowledging scientific disagreement and data gaps, and evaluating adverse impacts based on approaches or methods generally accepted in the scientific community. Avoiding sensitive habitat areas, requiring strong measures to protect wildlife throughout each state of the development process, and comprehensive monitoring of wildlife and habitat before, during, and after construction, are all essential for the responsible development of offshore wind energy. BOEM should ensure communities, wildlife, and the environment are protected while maximizing the creation of quality, high-paying jobs, and economic benefits.

Conclusion

When done right, offshore wind power will create thousands of high-quality, family-sustaining jobs in manufacturing, construction, operations, and maintenance, and in the development of port facilities, transmission, and other associated infrastructure while also avoiding, minimizing, and mitigating environmental impacts. Thank you for considering how BOEM and BSEE might further strengthen their role in ensuring that offshore wind energy is developed responsibly, with attention to equity, maximizing quality jobs and equitable career pathways, and protecting the environment by considering these recommendations. We appreciate your effort to solicit stakeholder input to inform the offshore wind energy leasing process.

Signed,

Jason Walsh

Executive Director

BlueGreen Alliance

White House, FACT SHEET: Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs, March 29, 2021. https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/

- iv U.S. Code, § 1337 Leases, easements, and rights-of-way on the outer Continental Shelf. https://www.law.cornell.edu/uscode/text/43/1337
- ^v Legal Information Institute, Building and Const. Trades Council of Metropolitan Dist. v. Associated Builders and Contractors Massachusetts/Rhode Island, Inc., March 8, 1993. https://www.law.cornell.edu/supremecourt/text/507/218)
- vi Justia, Hotel Employees & Restaurant Employees Union, Local 57 v. Sage Hospitality Resources, Llc, Appellant, 390 F.3d 206 (3d Cir. 2004), May 12, 2004. https://law.justia.com/cases/federal/appellate-courts/F3/390/206/506665/vii Casetext, Crescent Towing Salv. v. Ormet Corp., September 9, 1998. https://casetext.com/case/crescent-towing-salv-v-ormet-corp viii Casetext, Engine Mfrs. Ass'n v. South Coast Air Quality Management Dist., August 20, 2007. https://casetext.com/case/engine-mfrs-assn-v-scagmd
- ^{ix} NREL, A Supply Chain Road Map for Offshore Wind Energy in the United States, January 2023. https://www.nrel.gov/docs/fy23osti/84710.pdf
- * U.S. Department of the Interior (DOI), New York Bight Final Lease Sale Decision Memorandum, Dec. 2021. https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/ATLW-8-NY-Bight-Final-Lease-Sale-Decision-Memorandum.pdf
- xi U.S. Code, § 1332 Congressional declaration of policy. https://www.law.cornell.edu/uscode/text/43/1332
- xii White House, Executive Order on Use of Project Labor Agreements for Federal Construction Projects, Feb. 4, 2022. https://www.whitehouse.gov/briefing-room/presidential-actions/2022/02/04/executive-order-on-use-of-project-labor-agreements-for-federal-construction-projects/
- xiii Illinois Economic Policy Institute (ILEPI), Efficiencies of Project Labor Agreements, May 18, 2015. https://illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinois-PLAs-in-CDB-Projects-FINAL.pdf
- xiv The Journal of Labor and Society, Right-to-work Laws and Fatalities in Construction, June 2011. https://deepblue.lib.umich.edu/bitstream/handle/2027.42/98283/j.1743-4580.2011.00334.x.pdf?sequence=1

ii National Renewable Energy Laboratory (NREL), A Supply Chain Road Map for Offshore Wind Energy in the United States, January 2023. https://www.nrel.gov/docs/fy23osti/84710.pdf iii ibid.

xv Institute for Work and Health, Updating a study of the union effect on safety in the ICI construction sector, , January 2021.

www.iwh.on.ca/sites/iwh/files/iwh/reports/iwh report union safety effect construction upda te 2021.pdf

xvi UC Berkeley Labor Center, Workforce Issues and Energy Efficiency Programs: A Plan for California's Utilities, May 2014. https://laborcenter.berkeley.edu/pdf/2014/WET-Plan-Appendices14.pdf

xvii ILEPI, The Union Advantage During the Construction Labor Shortage: Evidence from Surveys of Associated General Contractors of America Member Firms, May 10, 2022. https://illinoisepi.files.wordpress.com/2022/02/ilepi-pmcr-construction-labor-shortage-agc-report-final.pdf

xviii Bureau of Labor Statistics (BLS), 2023 Union Membership (Annual) News Release, January 19, 2023.

https://www.bls.gov/news.release/union2.htm#:~:text=The%20percentage%20of%20workers %20represented,(See%20table%201.).

xix U.S. Chamber of Commerce, Labor Peace Agreements, 2016. https://www.uschamber.com/assets/archived/images/documents/files/laborpeaceagreements.pdf

xx Regulations.gov, Renewable Energy Modernization Rule, April 2, 2023. https://www.boem.gov/sites/default/files/documents/renewable-energy/regulatory-framework-and-guidelines/Mod%20Rule%20NPRM.pdf

xxi U.S. Department of Labor (DOL) Work Center, The Union Advantage. www.dol.gov/general/workcenter/union-advantage

xxii BLS, Union Members, 2021. www.bls.gov/news.release/pdf/union2.pdf

xxiii The White House, White House Task Force on Worker Organizing and Empowerment Report, February 2022. www.whitehouse.gov/wp-content/uploads/2022/02/White-House-Task-Force-on-Worker-Organizing-and-Empowerment-Report.pdf

xxiv Ibid.

xxv DOL, How the Task Force is advancing equity across underserved communities by supporting worker organizing and collective bargaining.www.dol.gov/sites/dolgov/files/general/labortaskforce/docs/508_union-fs-1.pdf

xxvi NREL. Offshore Wind Market Report: 2021 Edition Released, August 30, 2021. https://www.energy.gov/eere/wind/articles/offshore-wind-market-report-2021-edition-released

xxvii Wind Europe. Our Energy, Our Future, 2021. https://windeurope.org/about-wind/reports/our-energy-our-future/

xxviii NERL, A Supply Chain Roadmap for Offshore Wind in the United States. Part 1: The Demand for a Domestic Supply Chain, January 2023. https://www.nrel.gov/docs/fy23osti/84710.pdf

xxix Congress.gov, Pub. L. No. 96–294, Title I, § 100, 94 Stat. 616, June 30, 1980. https://www.congress.gov/96/statute/STATUTE-94/STATUTE-94-Pg611.pdf

xxx DOI, New York Bight Final Sales Notice Decision Memorandum. December 2021. www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/ATLW-8-NY-Bight-Final-Lease-Sale-Decision-Memorandum.pdf

xxxiNERL, The Demand for a Domestic Offshore Wind Energy Supply Chain, January 2022. https://www.nrel.gov/docs/fy22osti/81602.pdf.

xxxii ibid.

xxxiii NREL, A Supply Chain Road Map for Offshore Wind Energy in the United States, January 2023. https://www.nrel.gov/docs/fy23osti/84710.pdf

xxxiv ibid.

xxxv Princeton University, Working Paper: Influence of High Road Labor Policies and Practices on Renewable Energy Costs, Decarbonization Pathways, and Labor Outcomes, April 13, 2021. https://netzeroamerica.princeton.edu/img/Working_Paper-High Road Labor and Renewable Energy-PUBLIC RELEASE-4-13-21.pdf

xxxvi Ibid.

xxxviii NREL, A Supply Chain Road Map for Offshore Wind Energy in the United States, January 2023. https://www.nrel.gov/docs/fy23osti/84710.pdf

xxxviii North American Electric Reliability Corporation, High-Impact, Low-Frequency Event Risk Impact to the North American Bulk Power System, June 2010.

https://www.energy.gov/ceser/downloads/high-impact-low-frequency-risk-north-american-bulk-power-system-june-2010.

xxxix Ibid.

xl CUR Consulting, Leveraging a Carbon Advantage: Impacts of a Border Carbon Adjustment and Carbon Fee on the US Steel Industry, 2021. https://clcouncil.org/reports/leveraging-a-carbon-advantage.pdf?v1

- xli Stockholm Environment Institute Calculating Maritime Shipping Emissions Per Traded Commodity, April 2019. https://www.sei.org/publications/shipping-emissions-per-commodity/
- xlii Economic Policy Institute (EPI), Botched policy responses to globalization have decimated manufacturing employment with often overlooked costs for Black, Brown, and other workers of color, January 31, 2022. https://files.epi.org/uploads/239189.pdf

xliii ibid.

xliv NREL, A Supply Chain Road Map for Offshore Wind Energy in the United States, January 2023. https://www.nrel.gov/docs/fy23osti/84710.pdf

xlv ibid.			
xlvi ibid.			
xlvii ibid.			
xlviii ibid.			
xlix ibid.			

¹ ELWCTRI International, Project Labor Agreements, February 2007. https://electri.org/product/project-labor-agreements/

^{II} U.S Department of Energy, Wind Turbines: The Bigger, the Better. August 16, 2022. https://www.energy.gov/eere/articles/wind-turbines-bigger-better

liiFederal Register, Pacific Wind Lease Sale 1 (PACW-1) for Commercial Leasing for Wind Power on the Outer Continental Shelf in California-Final Sale Notice, October 21, 2022. https://www.federalregister.gov/documents/2022/10/21/2022-22871/pacific-wind-lease-sale-1-pacw-1-for-commercial-leasing-for-wind-power-on-the-outer-continental

Federal Register, Atlantic Wind Lease Sale 9 (ATLW-9) for Commercial Leasing for Wind Power on the Outer Continental Shelf (OCS) in the Carolina Long Bay Area (CLBA)-Final Sale Notice (FSN), March 28, 2022.

https://www.federalregister.gov/documents/2022/03/28/2022-06507/atlantic-wind-lease-sale-9-atlw-9-for-commercial-leasing-for-wind-power-on-the-outer-continental

liv Office of Clean Energy Demonstration, DE-FOA-0002779: Bipartisan Infrastructure Law: Additional Clean Hydrogen Programs (Section 40314): Regional Clean Hydrogen Hubs Funding Opportunity Announcement, January 23, 2023. https://oced-exchange.energy.gov/Default.aspx#Foald4dbbd966-7524-4830-b883-450933661811

^{Iv} U.S. Occupational Safety and Health Administration (OSHA), Recommended Practices for Safety and Health Programs. https://www.osha.gov/safety-management

Wi DOI, Secretary's Duties under Subsection 8(p)(4) of the Outer Continental Shelf Lands Act When Authorizing Activities on the Outer Continental Shelf, April 9, 2021. https://www.doi.gov/sites/doi.gov/files/m-37067.pdf

https://www.dol.gov/agencies/ofccp/executive-order-11246/as-amended

lviii Justia, United States v. Midwest Oil Co., 236 U.S. 459, February 23, 1915. https://supreme.justia.com/cases/federal/us/236/459/.

lix GovInfo.gov, 61 FR 25516 - Government Contractors, Affirmative Action Requirements; Implementation of Executive Order 11246, May 21, 1996. https://www.govinfo.gov/app/details/FR-1996-05-21/96-12687

^{lx} Federal Register, Tackling the Climate Crisis at Home and Abroad 86 FR 7619, February 01, 2021. https://www.federalregister.gov/documents/2021/02/01/2021-02177/tackling-the-climate-crisis-at-home-and-abroad

^{1xi} White House, Executive Order on Tackling the Climate Crisis at Home and Abroad, January 27, 21. https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/

kiiWhite House, FACT SHEET: Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs, March 29, 2021. https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/

lxiii Navigant Consulting, U.S. Offshore Wind Manufacturing and Supply Chain Development, February 22, 2013.

https://www1.eere.energy.gov/wind/pdfs/us offshore wind supply chain and manufacturing development.pdf

kiv General Electric, My Turbine Lies Over The Ocean: It Takes Herculean Labor To Build America's First Offshore Wind Farm, July 6, 2016. https://www.ge.com/news/reports/my-turbine-lies-over-the-ocean-it-takes-herculean-labor-to-build-americas-first-offshore-wind-farm

lxv U.S. Legal, Fair Return on Investment Law and Legal Definition.

https://definitions.uslegal.com/f/fair-return-on-

investment/#:~:text=Fair%20return%20on%20investment%20means,capable%20of%20exact %20mathematical%20demonstration

lxvi NERL, The Demand for a Domestic Offshore Wind Energy Supply Chain, January 2022. https://www.nrel.gov/docs/fy22osti/81602.pdf..

lxvii ibid.

bviii Princeton University, Working Paper: Influence of High Road Labor Policies and Practices on Renewable Energy Costs, Decarbonization Pathways, and Labor Outcomes, April 13, 2021. https://www.dropbox.com/sh/ad9pzifo9w1a49u/AAC2milGD44MlwXo15k7EAgsa?dl=0&preview=Working Paper-High Road Labor and Renewable Energy-PUBLIC RELEASE-4-13-21.pdf

lxix ibid..

https://steel.guerrillaeconomics.net/reports/976948cf-c638-47ea-b882-e7cc1e6913a2?

lxxi ibid.

https://illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/Illinoisepi.org/site/wp-content/themes/hollow/docs/wages-labor-standards/labor-sta

lxxiii ibid.

lxxiv ibid.

LXXV UC Berkeley Labor Center, Workforce Issues and Energy Efficiency Programs: A Plan for California's Utilities, 2014. https://laborcenter.berkeley.edu/pdf/2014/WET-Plan-Appendices14.pdf

kxvi Ecodavis Business Sustainability Ratings, What is a Supplier code of conduct? https://ecovadis.com/glossary/supplier-code-conduct/#:~:text=What%20is%20a%20Supplier%20code,of%20employees%2C%20and%20ethical%20practices.

PubsOnLine, Organization Science, Coupling Labor Codes of Conduct and Supplier Labor Practices: The Role of Internal Structural Conditions, April 30, 2019. https://pubsonline.informs.org/doi/10.1287/orsc.2018.1261.

harvard Business Review, Manage the Suppliers that Could Harm Your Brand, March 2021. https://hbr.org/2021/03/manage-the-suppliers-that-could-harm-your-brand

kxix EPI, Why unions are good for workers—especially in a crisis like COVID-19, August 25, 2020. https://www.epi.org/publication/why-unions-are-good-for-workers-especially-in-a-crisis-like-covid-19-12-policies-that-would-boost-worker-rights-safety-and-wages/

lxxx ibid.

JD Supra, Biden Administration Seeks to Limit Employer Speech to Aid in Union Organizing, June 22, 2022. https://www.jdsupra.com/legalnews/biden-administration-seeks-to-limit-3756368/

lxxxii ibid.

https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/09/08/remarks-by-president-biden-in-honor-of-labor-unions/

Politico, Playbook Breakfast: Department of Homeland Security 10th Anniversary Edition, March 4, 2013. https://www.politico.com/events/2013/03/playbook-breakfast-department-of-homeland-security-10th-anniversary-edition-157570

lxxxv North American Electric Reliability Corporation, High-Impact, Low-Frequency Event Risk Impact to the North American Bulk Power System, June 2010.

https://www.energy.gov/ceser/downloads/high-impact-low-frequency-risk-north-american-bulk-power-system-june-2010.

lxxxvi ibid.

bxxvii White House, Executive Order on America's Supply Chains, February 24, 2021. https://www.whitehouse.gov/briefing-room/presidential-actions/2021/02/24/executive-order-on-americas-supply-chains/

lxxxviii ibid.

lxxxix ibid.

xc Brookings, How to build more secure, resilient, next-gen U.S. supply chains December 3, 2020. https://www.brookings.edu/techstream/how-to-build-more-secure-resilient-next-gen-u-s-supply-chains/

xci CUR Consulting, Leveraging a Carbon Advantage: Impacts of a Border Carbon Adjustment and Carbon Fee on the US Steel Industry, May 25, 2021. https://clcouncil.org/reports/leveraging-a-carbon-advantage.pdf?v1

xcii Stockholm Environment Institute Calculating Maritime Shipping Emissions Per Traded Commodity, April 2019. https://www.sei.org/publications/shipping-emissions-per-commodity/