



**Leading Light
Wind**

New York Jobs and Workforce Plan

For

Leading Light Wind



New York State Energy Research and Development Authority

Albany, NY

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1.0 Introduction

The purpose of the Leading Light Wind New York Jobs and Workforce Plan is to detail actions to be taken by Leading Light Wind to support the project and success of the Economic Benefits Plan. The plan documents the value of those actions.

The Jobs and Workforce Plan provides our philosophy, strategy, and commitments for taking full advantage of the transformational workforce opportunities presented by these clean energy investments. The plan supports the transition away from traditional energy sources and industries and is aligned with the clean energy economy workforce goals of the New York Climate Act. These include the following:

- Engaging fully with organized labor
- Providing critical support for industry-wide skills training and education
- Paying prevailing wages for the entire construction force
- Promoting a more diverse workforce in New York State

Our plan assures that this a “just transition” to the new clean energy economy as envisioned by the just transition principles and strategies expressed in the New York State Climate Action Council “Final Scoping Plan” (December 2022).

The Jobs and Workforce Plan provides our comprehensive, overall approach and demonstrates a commitment to engaging New York’s highly skilled and well-trained union workforce in a way that maximizes opportunities for members of disadvantaged communities (DACs), minority and/or women-owned businesses (MWBs), service-disabled, veteran-owned businesses (SDVOBs), and disabled business enterprises (DBEs). As discussed in detail below, offshore wind requires labor-intensive manufacturing, transportation, and operation, which will create job opportunities for thousands across all phases of the offshore wind development, deployment, and operations value chain.

Our New York Jobs and Workforce Plan will evolve over time as our relationships with organized labor, workforce training providers, academia, and government deepen and expand through the various phases of project planning, construction and long-term operation. This approach is intended to allow flexibility and room for growth as the project matures.

2.0 Background and Summary

The New York Climate Act recognizes that workers are at the front lines of climate change and that a well-trained, organized, and diverse workforce is the cornerstone to building a new clean energy economy in New York State.

As an offshore wind area leaseholder in the New York Bright and the developer of a significant portion of the future clean energy power supply for New York, Leading Light Wind recognizes its role, responsibilities, and privilege to ensure that career opportunities in the new clean energy economy as envisioned by the Climate Act are created and shared geographically and demographically to increase access to good jobs for marginalized communities.

Climate change has a disproportionate impact on low-income people, women, and workers. It is in the interest of New York State and Leading Light Wind to protect and promote the interests of these groups against the impacts of climate change and to advance our equity goals by ensuring quality employment opportunities in safe working environments.

The NYSERDA 2021 “New York Clean Energy Industry Report” indicates that New York had 157,700 clean energy workers at the end of 2020, representing a 12% workforce growth since 2015. This workforce spanned a wide variety of clean energy industries, including energy efficiency; solar, land-based wind, geothermal, and other renewable generation technologies; clean and alternative transportation and renewable fuels; and grid modernization and energy storage.

Offshore wind is poised to provide the next great increase in clean energy employment opportunities. Between 2019 and 2040, New York State is projected to see employment growth in occupations related to offshore wind (i.e., excluding “induced” employment projections) of 13,900 to 17,700 jobs, as per the Scenario 2 (“Low Carbon Fuels”) and Scenario 3 (“Accelerated Transition”) investment and policy scenarios, detailed in the 2021 New York State Climate Action Council “Draft Scoping Plan.” Manufacturing and other supply chain occupations will account for just over half (52%) of these new offshore wind-related jobs, with construction and professional services accounting for approximately 31% and 17%, respectively. Further, Leading Light Wind is committed to paying no less than prevailing wage on our construction sites.

According to the 2022 “New York Offshore Wind Workforce Gap Analysis,” New York has an above-average concentration of jobs required for the planning and development phase of offshore wind project development.

These are mainly professional services occupations, such as engineers and technicians, managers, analysts, and lawyers. Offshore wind-related planning and development jobs are roughly 9% more concentrated in New York compared to the national average (with a Location Quotient of 1.09), indicating that the state is already positioned to supply the engineers and technicians needed to support the initial planning and design phases for the state’s offshore wind project pipeline.

However, jobs in other key offshore wind industrial sectors are less concentrated in New York compared to the national average, including manufacturing and assembly, construction and installation, and operations and maintenance (O&M), with Location Quotient values of 0.92, 0.96, and 0.95, respectively. These industries and occupations are the key components of developing a successful offshore wind industry in New York and they represent the bulk of job creation.

[REDACTED]

[REDACTED]

Creating good jobs and a thriving economy is a core concern of New York State, and Leading Light Wind fully understands that setting clear standards for job quality and training standards encourages not only high-quality work but positive economic impacts.

We recognize the pivotal role to be played by organized labor throughout the entire offshore wind industry, at every phase of its development and operation, and through union-sponsored training and apprenticeship programs.

According to the City University of New York School of Labor and Urban Studies, organized labor has long been much stronger in New York State than in the nation generally. In 2021, unionization rates of the workforce in New York State averaged 23.2% across all sectors — roughly double that of the United States as a whole at 10.9%. In absolute terms, New York State had more union members — 1.68 million — than any state except California, which has a far larger population. In 2021-22, there were about 623,000 union members residing in the five boroughs of New York City, accounting for 37.1% of all union members in the state. Unionization rates for utilities, construction, and truck transportation in New York (all critical to offshore wind) are 48.4%, 28.8%, and 20.5%, respectively: again, far above national averages.

However, like the rest of the country, New York State has seen a continued erosion in overall unionization rates — especially in the trades, as professional and general services continue to become the most unionized sectors. Leading Light Wind is committed and prepared to negotiate fairly and cooperatively with all unions with trade jurisdiction extending to the offshore wind generation projects and associated SCIP facilities to establish meaningful memorandums of understanding (MOUs) and ultimate development of project labor agreements (PLAs) to assure cost savings, reduce timeline risk, set high safety standards, rationalize shift expectations, promote labor harmony, define training opportunities, promote a more diverse workforce, and provide other benefits of a project-wide collective bargaining agreement backed by prevailing wages. As discussed below, Leading Light Wind has already initiated these efforts.

Leading Light Wind understands that measures called for in the Climate Act to reduce emissions from the electricity sector by displacing fossil-fuel-fired electricity with renewable electricity or energy efficiency will result in workers and communities losing employment. Connecting workers displaced by this transition to new employment opportunities through career services, skills training, and infrastructure investments is a key concern of our workforce commitments.

As discussed in more detail below, in addition to the New York State Supplier Opportunities Protocol, to be enacted by Leading Light Wind in compliance with the RFP, Leading Light Wind will negotiate with our supply chain and our partners in organized labor to set firm goals for inclusionary contracting, including setting baseline expectations for percentages of work to be contracted to MWBEs, SDVOBs, and DBEs across all phases of the project.

Leading Light Wind will prioritize hiring and training directly from local host communities as well as individuals from adjacent DACs or historically marginalized backgrounds. [REDACTED]

[REDACTED]

To make full use of the learned workforce experience of the previous solicitations and to provide our input and expertise to continually improve the offshore wind workforce in New York State, Leading Light Wind will cooperate diligently with the Jobs and Supply Chain Technical Working Group (JSC-TWG), the independent advisory body led by NYSERDA. The group is composed of offshore wind developers, global manufacturers, local economic development stakeholders, academia, and state agencies. It is focused on advancing workforce development and identification of near- and long-term workforce development needs.

3.0 Labor Engagement

Labor Liaison Officer (LLO)

The Labor Liaison Officer (LLO) for the Leading Light Wind project is Mr. Brian Kerkhoven. His relationships with labor leaders throughout New York City, Long Island, and the rest of New York State uniquely position him to be an effective interface between the Leading Light Wind project and organized labor. Brian joined the Leading Light Wind team with nearly a decade of labor experience, most recently serving as the Energy Policy Adviser for North America's Building Trades Unions (NABTU). He also previously served as an energy, environmental, and labor staffer for two members of Congress, and as a renewable energy policy analysis for a financial firm focused on the Obama administration's American Reinvestment and Recovery Act clean energy funding provided to the U.S. Department of Energy.

In his role as an Energy Policy Advisor for NABTU, Brian played an integral role developing some of the first relationships between organized labor and the nascent offshore wind industry in the US. This exposed him to the numerous work opportunities and job requirements offered by the offshore wind industry. Brian's work centered on educating European offshore wind industry counterparts on the nuances of American organized labor and the building trades. His efforts led to a shift in the European corporate labor strategy, which up until recently focused on instituting the European offshore wind construction model in the U.S. Union leaders recognize Brian's early work as one of the primary reasons that Orsted agreed to sign the first of its kind MOU with American organized labor. These efforts eventually led to the National Offshore Wind Agreement (NOWA) signed between NABTU and Orsted, which is now widely recognized as the template for a PLA for offshore wind construction.

Brian possesses the critical thinking and institutional knowledge to bring together local stakeholders, government, labor, industry, and construction. Further, he understands the dynamics of organized labor - from the needs of the local hiring halls to the expectations of state labor leaders, and international union presidents – needed to successfully grow and develop a thriving offshore industry workforce throughout New York state. And as a native New Yorker from a union household, he is personally vested in this goal.

Outreach and Partnerships

Organized labor is the backbone of the American middle class. Leading Light Wind embraces this moniker and recognizes the historical significance of the labor movement in New York City and throughout the state. We will build upon this heritage and create new pathways into the middle class by engaging with labor throughout the Leading Light Wind ecosystem.

To best position our project to meet New York's goals and targets for organized labor in the offshore wind industry, we have instituted a union first culture within the development team with the goal of, to the fullest extent possible, incorporate union interests into everything we do. We will apply this union-first approach wherever possible.

Leading Light Wind intends to work closely and equitably with our union partners. Our labor outreach has built the foundation for lasting relationships with numerous New York State and national labor organizations, including leadership at the New York State Building & Construction Trades Council (NYSBCTC), New York State American Federation of Labor Congress of Industrial Unions (NYS AFL-CIO), NYC Central Labor Council, Long Island Federation of Labor, the AFL-CIO, and NABTU. Our conversations relate to the use of organized labor throughout our onshore and offshore construction and our future operations.

Specific to our construction, Leading Light Wind has signed an MOU with NABTU memorializing our commitment to union construction on our project throughout New York State as well as offshore. By signing with NABTU, which represents the NYCBCTC and all the Building Trades Councils through North America, Leading Light Wind commits to entering a PLA with the NYSBCTC for our onshore construction – port construction, battery storage facility, and pre-assembly work – and

a separate MOU for onshore power infrastructure. Our MOU also includes the commitment to NABTU to utilize the National Offshore Wind Agreement, which is the standard PLA for all union-related offshore wind construction.

We believe these early efforts and partnerships will best position Leading Light Wind to fully utilize the world-renowned training and apprenticeship programs synonymous with the building and construction trades and New York state organized labor. The resulting MOU is provided in an Appendix. Further, we have engaged with the New York State AFL-CIO and the United Steelworkers (USW) related to potential labor opportunities during our operations.

Our intention is to develop some of the strongest PLAs in the industry, with clear provisions related to worker safety, industry leading compensation and benefits, training modules, and recruitment strategies to attract and retain workers looking to make a career in the offshore wind industry. The opportunities to be created through our partnership with the Building Trades, and memorialized in our MOU, will expand the current union efforts to diversify the construction industry, and the offshore wind industry at large, while utilizing strategic workforce development models to create new pathways into the middle class for historically underserved Americans, including those from DACs and MWBE and SDVOB businesses.

Thus far, Leading Light Wind has identified over two dozen unions that may play a role in our project's success. In some cases, we were able to identify the local union halls our contractors will be partnering with; below is a list of construction trades followed by a list of industrial unions:

Table 1: Leading Light Wind has identified over two dozen unions that might contribute to our project

Union	Local Union Hall(s)
Building and Construction Trades	
International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers (IW, "Ironworker")	Local 46 Metallic Lathers Local 40
International Association of Heat and Frost Insulators and Allied Workers (Insulators, "Insulator")	
International Association of Sheet Metal, Air, Rail and Transportation Workers (SMART, "Sheet Metal Worker")	
International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers (IBB, "Boilermaker")	
International Brotherhood of Electrical Workers (IBEW, "Electrical Worker")	Local 3
International Brotherhood of Teamsters (IBT, Teamsters)	Local 282
International Union of Bricklayers and Allied Craftworkers (BAC, "Bricklayer")	

International Union of Elevator Constructors (IUEC, "Elevator Constructor")	
International Union of Operating Engineers (IUOE, "Operating Engineers" or "OE")	Local 25 Marine Operators (Dredging) Locals 14 and 15 Operators
International Union of Painters and Allied Trades (IUPAT, "Painter")	
Laborers' International Union of North America (LIUNA, "Laborer")	Local 731 Local 79 Local 1010
Operative Plasterers' and Cement Masons' International Association (OPCMIA, "Plaster" or "Cement Mason")	
United Association – Union of Plumbers, Fitters, Welders and Service Techs (UA, "Plumbers" or "Pipefitters" or "Sprinklerfitters" or "HVAC Techs")	Local 1
United Brotherhood of Carpenters and Joiners of America (UBC, "Carpenters")	Local 20 Carpenters Local 1556 Dockbuilders and Divers
United Union of Roofers, Waterproofers and Allied Workers (Union Roofers, "Roofers")	
Industrial Unions	
United Auto Workers	
United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union	
International Association of Machinists	
International Longshoremen's Association	
Marine Beneficial Engineers Association	
Communications Workers of America	

Specific to our PLA, we have begun conversations with wind turbine installation contractors related to the following topics:

[REDACTED]

[REDACTED] However, we will also focus on growing the offshore wind workforce with our labor partners through their existing apprenticeship readiness collective and the creation of our new Leading Light Wind stakeholder partnerships. These programs provide proven track records to recruit and train people of color, veterans, women, and people from DACs. In addition, our PLAs will build upon this infrastructure, integrating the programs into the communities we operate while providing coordination plans between our contractors and the program directors.

Leading Light Wind has identified the following programs for our primary partnerships on training and workforce development:

- **Construction Skills (CSKILLS) apprenticeship readiness program**, which provides training and Direct Entry access to New York City public high school seniors and other residents seeking careers in the unionized building and construction trades.
- **New York Helmets to Hardhats**, which is a 501(c)3 Direct Entry Program assisting active-duty veterans, National Guard, and Reservists to careers with the New York Building Trades unions and affiliated employers. This program will build upon Invenergy's longstanding partnerships with, and commitment to, the veteran community.
- **Pathways to Apprenticeship**, which is a Direct Entry pre-apprenticeship program that recruits, trains, and mentors people from low-income communities for placement and success in union construction apprenticeship programs in New York City.
- **Nontraditional Employment for Women**, which prepares, trains, and places women in careers in the skilled construction, utility, and maintenance trades, helping women achieve economic independence and a secure future for themselves and their families.

[REDACTED] Through our work with the New York State Building and Construction Trades Councils, we are excited to create pre-apprenticeship programs in local schools. The purpose of these programs is to expose students to career opportunities afforded to those who have no intention of enrolling in college. Pre-apprenticeship programs, for example, allow for the local building trade unions to apply their world-renown training program and curriculum to the next generation of blue-collar workforce, while exposing this demographic to opportunities for well-paying, middle-class careers. This is especially applicable to our neighbors in surrounding DACs. Leading Light Wind will not ignore its neighbors and will make every effort to engage community leaders early in our development and throughout our project's construction and continuing operations.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

4.0 Industry-Wide Training and Education

Leading Light Wind understands that the role of workforce skills training is pivotal to the success of the ambitious economic development goals of the Climate Act in general, and a critical ingredient in realizing the potential long-term economic benefits to New York State from the regional development of offshore wind.

Continued development of the offshore wind industry in New York and along the Eastern Seaboard requires the associated development of a robust skills training ecosystem. Providing all levels of training for each of the offshore wind-related occupations requires a different amount of minimum education. For example, occupations such as management, operations analyst, engineering, environmental scientists and geoscientists, and sales typically require a four-year bachelor's degree or higher, whereas occupations such as business and financial operations, administrative support, construction trades workers, installation, maintenance and repair, production work, and transportation and material moving occupations typically require high school, apprenticeship, or post-secondary training such as a two-year associate degree.

Specialized offshore wind-related occupational training courses may vary in term from three to five days for specialized equipment or safety certifications, to two years of post-secondary coursework for assembly and production occupations (e.g., wind turbine service technicians). These courses typically do not require training prerequisites and are essential part of building the offshore wind workforce in New York.

Several training programs are already available in New York. The 2022 New York Offshore Wind Workforce Gap Analysis found that New York has a wide selection of vocational trade programs that could support offshore wind workforce development, including more than 750 programs that offer curricula for key occupations in the offshore wind supply chain. Vocations include electricians, machinists, technicians, and equipment operators. Though these trade programs may not yet currently contain material specific to offshore wind, the baseline knowledge remains key, and applicable to the construction and operations phases of offshore wind project development.

Led by the efforts of the New York Offshore Wind Training Institute, many institutions and training providers are already preparing offshore wind curricula, including the National Offshore Wind Training Center at Suffolk County Community College on Long Island. The center will train and certify offshore wind construction, assembly, and production occupation workers through the nation's first Global Wind Organization training center for offshore wind.

Other training courses and certifications required for offshore wind operations may still not be widely available in New York State. For example, the Offshore Petroleum Industry Training Organization Certified Helicopter Underwater Egress Training is a prerequisite for all personnel transfer/crew changes through helicopters. The Helicopter Underwater Egress Training may be paired with Helicopter Safety and Use of Emergency Breathing System.

Many programs in New York, including the City University of New York (CUNY) campus network, offer a two-year associates degree in many of the offshore wind construction, assembly, and production occupations, including advanced manufacturing, welding and fabrication, etc. Hudson Valley Community College in Troy and LaGuardia Community College in Queens were both recently awarded funding through the Offshore Wind Training Institute to initiate programs to provide training and associate-level degrees and certification for these occupations.

Apprenticeship and pre-apprenticeship programs also provide a significant source of opportunity for workforce development and skills training, especially for local residents, with some programs focusing on increasing the number of women, people of color, and transitioning veterans in the skilled trades. Major apprenticeship programs already established in New York State include the Department of Labor's Registered Apprenticeship Program, which offers a wide variety of sponsored curricula and job placement activities, and union-led apprenticeship programs such as those offered by NABTU and the IBEW.

Apprenticeship training produces skilled workers through a combination of structured on-the-job training with a skilled trainer and trade-specific classroom instruction. Programs are conducted by employers, groups of employers, and jointly by employers and unions. Apprentices are full-time paid employees who produce high-quality work while they learn skills that enhance their employment prospects. They are paid on a graduated scale; this assures that salary reflects the degree of skill achieved.

In addition to providing traditional craft and trade-based apprenticeship training curricula (e.g., carpenters, mechanics, electricians), apprenticeship programs in New York State are expanding registered apprenticeship programs into emerging and expanding industries linked to the new clean energy economy, like advanced manufacturing and information technology. Leading Light Wind has sought out and engaged with many New York State offshore wind training efforts that are currently underway or in the planning stage. We have investigated potential collaborations and partnerships with the goal of supporting the industry-wide establishment of quality offshore wind training in New York State.

[REDACTED]

Creating good jobs and a thriving economy is a core concern of New York State, and Leading Light Wind fully understands that setting clear standards for job quality and training standards encourages not only high-quality work but positive economic impacts.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[Redacted text block]

5.0 Just-Transition Considerations

New York State Supplier Opportunities Protocol

As per Section 2.2.13 of the RFP, Leading Light Wind shall implement the following New York Supplier Opportunity Protocol throughout our procurement and contracting efforts related to all facets of the project, including offshore wind generating facilities [energy storage facilities] and SCIP facilities in support of providing opportunities to New York small to medium business entities.

- Leading Light Wind shall offer New York companies the opportunity to provide goods and services, including enabling domestic US iron and steel supplier contracts, for which there is capability in New York State to our contractors and other suppliers of the project [including Energy Storage]. Leading Light Wind shall communicate all opportunities for supplier contracts for the project with an anticipated contract value of \$1 million or greater not already committed as of the date of this ORECRFP22-1 submittal to New York State companies. We will use the New York Offshore Wind Supply Chain Database maintained by NYSERDA. Exceptions will be for the provision of goods and services that cannot practically be performed by the New York State supply chain at this time. We shall encourage all contractors and other suppliers to reference and review this database regardless of the contract value.
- Leading Light Wind shall report on New York State supplier opportunity activities for direct contracts and for subcontracts associated with the project. This action is aligned with the progress reporting requirements under Section 6.02 of the agreement. Leading Light Wind shall utilize the New York Offshore Wind Supply Chain Database as maintained by NYSERDA or its designee on an ongoing basis. Reporting would cover the opportunity and associated marketing through the database.
- Leading Light Wind and its contractors and other suppliers will undertake efforts to maximize contract and subcontract opportunities for MWBEs and SDVOBs and communicate supplier opportunities to MWBE and SDVOB using the MWBE Certified Database maintained by Empire State Development. We will also use the Directory of New York SDVOBs maintained by the Office of General Services. Opportunities will be for goods with anticipated contract value of over \$250,000, and for services with contract value expected over \$100,000.
- Leading Light Wind shall include within the Stakeholder Engagement Plan a section outlining outreach efforts and strategy to enhance the participation of New York companies, including MWBE and SDVOB firms, in the renewable energy sector and shall report commitments and expenditures to MWBE and SDVOB firms as part of the contract quarterly report.

Our Commitment to DACs and Priority Populations

Leading Light Wind will prioritize hiring and training directly from local host communities as well as individuals from adjacent DACs or historically marginalized backgrounds. [REDACTED]

To make full use of the learned workforce experience of the previous solicitations and to provide our input and expertise to continually improve the offshore wind workforce in New York State, Leading Light Wind will cooperate diligently with the JSC-TWG, the independent advisory body led by NYSERDA and composed of offshore wind developers, global manufacturers, local economic development stakeholders, academia, and state agencies. It is focused on advancing workforce development and identification of near- and long-term workforce development needs.

Opportunities for MWBE/SDVOB/DBE Contractors and Subcontractors

In addition to the New York State Supplier Opportunities Protocol to be enacted by Leading Light Wind in compliance with the RFP, we will negotiate with our supply chain and our partners in organized labor to set firm goals for inclusionary contracting, including setting baseline expectations for percentages of work to be contracted to MWBEs, SDVOBs, and DBEs across all phases of the project. Leading Light Wind will negotiate with our organized labor partners to include in the PLA stipulations and requirements for the unionization and contracting of MWBEs, SDVOBs, and DBEs that are duly competitive against similarly sized businesses, including long-term plans to increase the unionization of MWBEs, SDVOBs, and DBEs for construction and professional services related to offshore wind that will allow them to gain valuable experience working on transformative New York clean energy projects

6.0 Jobs Commitments

This section of the Leading Light Wind Jobs and Workforce Plan presents the workforce-related commitments captured in the Offer Data Forms, providing details on commitments to short-term and long-term jobs creation, expected work locations, anticipated total labor expenditures; as well as jobs created in DACs, and by MWBE and SDVOB firms, as a direct result of the Leading Light Wind Offshore Wind Generation Facility (OWGF) projects. A detailed qualitative description and quantitative summary of the New York jobs and workforce claims are provided below.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

