

Jobs & Workforce Plan for Attentive Energy One

New York State Energy Research and Development Authority

Albany, NY

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Appendix H: Jobs & Workforce Plan

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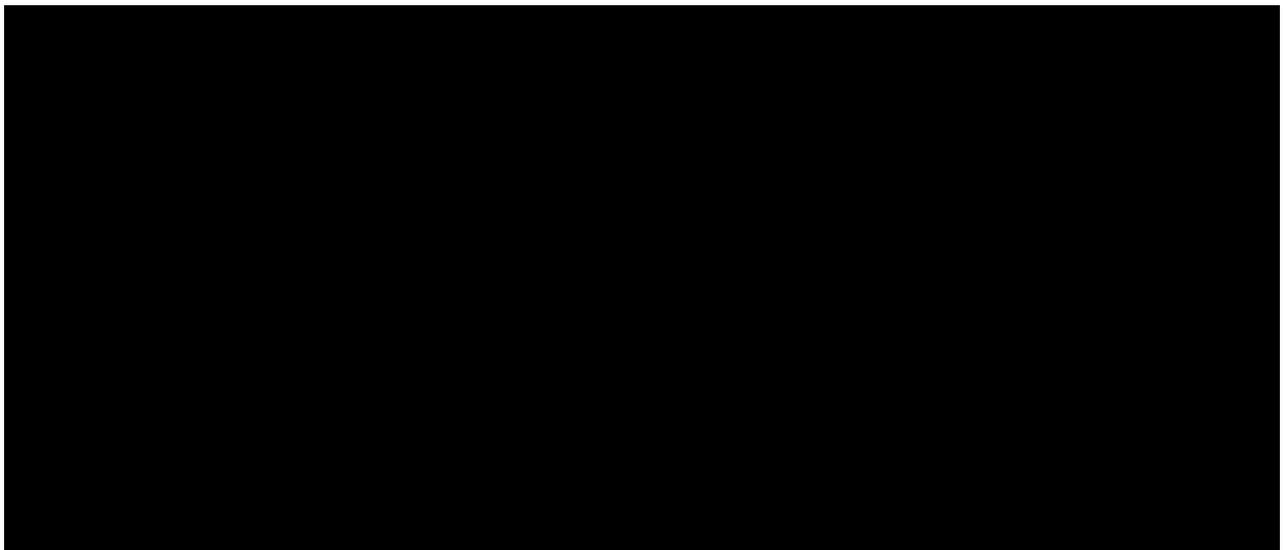
H.1: New York Jobs and Workforce Plan Summary

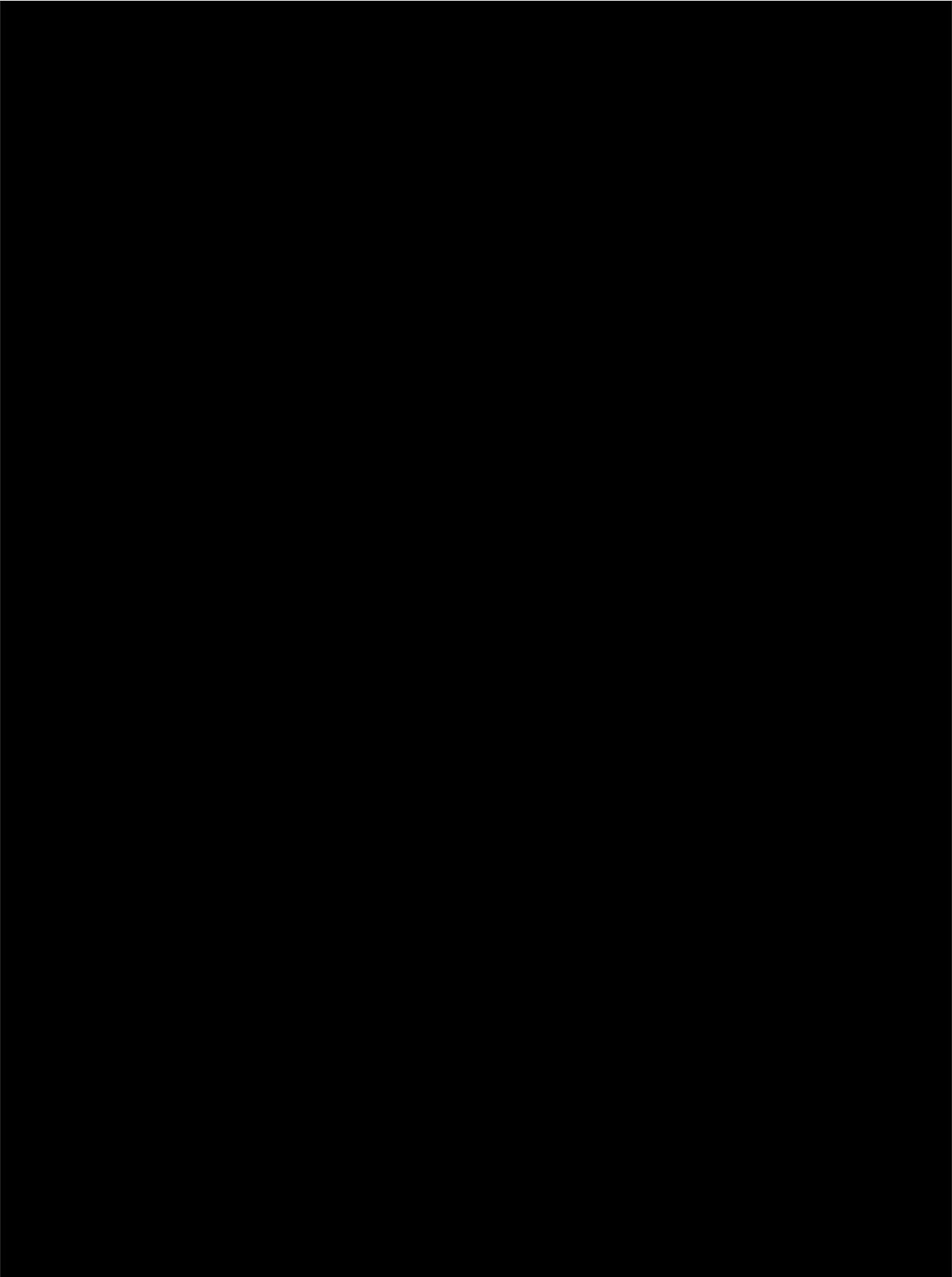
1.1 A Renewable Energy Workforce for New York State

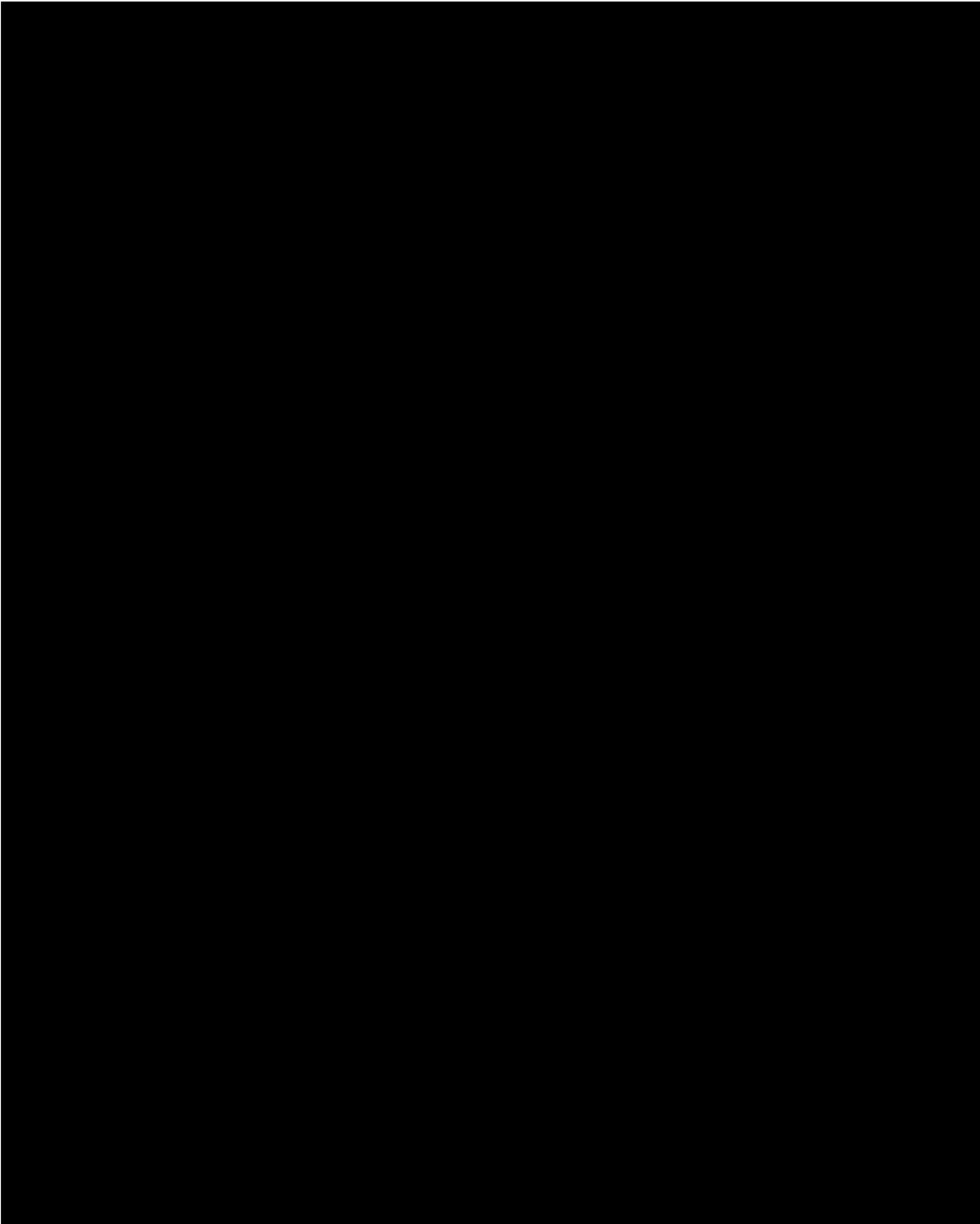
The following submission outlines Attentive Energy’s commitment to the people of New York that will stand up this project, operate and maintain it and set a new national standard for how we create lasting pathways to participate and thrive in tomorrow’s clean energy economy. Inspiration and access starts with middle school students and goes through mid-career professionals seeking a role in an industry that will be cornerstone of New York’s economy. These initiatives and programming have been designed to meet a once in a generation opportunity while basing it in meaningful and needed resources to make New Yorkers benefit from a career in offshore wind. This plan and its commitments follow years of open and proactive engagement to ensure we understand what these communities and workers need to be successful in the years ahead.



Attentive Energy’s approach to developing the needed workforce includes a range of categories, including the consideration of how to provide wrap-around services, like childcare and transportation. Attentive Energy understands the importance of providing actual opportunities that people can truly make use of. Attentive Energy’s approach includes:







Attentive Energy is firmly aligned with the goals adopted in the recently passed *New York Climate Action Plan*, especially those in chapter 7 of the plan which is focused on a just transition.

1.2 Opportunities and Challenges, Existing Research, Goals, and Experience

Opportunities, Challenges, and Existing Research

It is estimated 18,000 to 23,000 jobs will be created in New York State between 2019 and 2040 as the state fulfills its commitment to develop 9,000 megawatts of offshore wind energy by 2035.¹ New York State's current workforce must be expanded and reskilled to meet the unfolding needs of the offshore wind industry. The U.S. construction industry is already struggling to attract and retain workers – in October 2021, over 400,000 construction positions remained unfilled by month's end, the second-highest level recorded since data collection began. The 2022 *New York State Offshore Wind Workforce Gap Analysis* projects that construction and manufacturing positions will account for 48.5% of offshore wind industry jobs by 2030, and 56.5% by 2040. And, new infrastructure investments totaling \$550 billion embedded in the *US Bipartisan Infrastructure Law* could create demand for 3.2 million new non-residential construction jobs over the next ten years, further complicating efforts to stand up a new industry and meet its enormous labor needs. To address labor demands in a challenging environment, new pools of labor must be identified, recruited, trained, and ultimately retained. New York State has a lower concentration of key offshore wind-related jobs compared to other states with existing offshore wind developments, such as New Jersey and Massachusetts. Compared to the national average, New York State also has a lower concentration of manufacturing, construction, and operations and maintenance jobs. These three job categories are crucial components of a successful statewide offshore wind industry and are projected to represent 65% of job growth from offshore wind development. The 2022 *New York State Offshore Wind Workforce Gap Analysis* modeled the estimated workforce demand for 9,000 MW of offshore projects in New York State and found four offshore wind occupations with severe potential workforce gaps. The projected workforce gaps for Plant and System Operators, Hoist and Winch Operators, Continuous Mining Machine Operators, and Wind Turbine Service Technicians are categorized as severe because demand exceeds supply, and this gap is larger than the size of the current workforce. Thirty-five occupations are further classified as having moderate workforce gaps, where demand exceeds supply but the gap does not exceed the existing workforce. To meet this demand, non-traditional workers in construction, including women, formerly incarcerated individuals, transitioning veterans, and workers from Disadvantaged Communities offer the promise of helping the industry meet its pressing labor needs while ensuring that its workforce is truly reflective of New York's rich diversity.

Diversifying the workforce will be a guiding principle for Attentive Energy as training and hiring pipelines are developed for the Project. According to the 2021 *New York Clean Energy Industry Report*, Women, Hispanic or Latinx, Asian, and Black or African American workers are underrepresented in New York's clean energy industry.² Only 31% of clean energy employers work with local training providers and only 13% work with local unions for recruitment.

¹ *New York State Offshore Wind Workforce Gap Analysis*, 2022

² *New York Clean Energy Industry Report*. 2021

Recruitment efforts will need to address the negligible footprint of clean energy jobs in under-represented communities. Based on survey responses, Hispanic or Latinx comprised only 15% of the workforce in the New York Clean Energy industry in 2020; for Black or African Americans, the figure was 8%. Comparatively, their White counterparts comprised 72% of the New York clean energy industry workforce in 2020. While there are nearly 164,000 New Yorkers currently working in the clean energy industry, the industry can and must do more to ensure an equitable distribution of jobs for all New Yorkers.

One of the challenges the sector faces in attracting talent is the perceived risk associated with offshore wind employment. The lifestyle and risks associated with working at sea are unique and the training regimen will need to help workers understand and manage these risks. Additionally, offshore wind jobs typically require either an apprenticeship, postsecondary training, or a bachelor's degree. The industry will require workers for job categories that are new to the region such as wind turbine technician, but also for existing jobs, such as electricians, marine welders, vessel crew members, and a host of other construction and maintenance activities. Many of these jobs will also require specialized knowledge of offshore wind and HVDC energy transmission technology, or material-handling equipment like self-propelled modular transporters to move components, a stark shift from the yard vehicles and forklifts that longshoremen have traditionally used. All of these jobs will require additional training in sea survival and other maritime safety skills. Basic Safety Training is the GWO training standard, which consists of five training modules and is regarded as the baseline training necessary to enter or work on an offshore wind project. The domestic offshore wind industry has aimed to double GWO training capacity on an annual basis to meet this need.

With all this, significant investment is needed to educate young people in and train adults for the opportunities to come. New York State is investing \$77 million in workforce training to prepare the jobseekers for the unfolding clean energy transition, and Attentive Energy will build upon the State's investment this with the Plan.

Overall Goals



Many of these jobs will need training in the skills described above. These jobs will be filled using connections to local unions, higher education institutions, and CBO partners that can help find qualified residents from nearby communities for these positions.

Workforce Training Experience

Attentive Energy has the local experience to implement a comprehensive workforce development plan alongside labor, training intermediaries, and community-based stakeholders. Rise, the owner of NYC's largest generation facility, already offers technical training for over 70 trades in the construction, maintenance, and power industries through its existing Ravenswood Training Center. The Ravenswood Training Center utilizes a combination of classroom, web-based, and hands-on training and is a National Center for Construction, Education, & Research (NCCER)-Accredited Training Sponsor and Assessment Center. Rise's 13 NCCER certified instructors—seven of whom are members of Utility Workers Union of America Local 1-2—have taught over 50 different NCCER modules since May 2020 and their Library includes material for Basic Core, Mechanic, Electrician, Instrumentation and Controls (I&C) Technician, Welder; Heating, Ventilation, and Air Conditioning (HVAC) Technician; Power Industry Fundamentals, Alternative Energy, Solar Power, Wind Turbine Technician, and more. Currently, 36 Ravenswood employees are NCCER Certified Journeymen for their respective crafts. As not all skills can be learned in the classroom, the Ravenswood Training Center has multiple hands-on training stations and equipment for trainees to learn in a safe environment. These include a state-of-the-art virtual reality welding simulator and working models that enable trainees to disassemble, reassemble, wire, program, and observe component operations.

The Ravenswood Training Center also offers employees access to over 3,000 web-based training modules through the GPiLearn+ training platform, providing a range of topics that cover areas of corporate compliance, worker safety, and technical expertise. Each Ravenswood craft discipline has specific Learning Paths that align with the union progressions, from entry level to fully qualified, and staff are assigned approximately 200 hours of learning per year. Union employees can cross train across the different trades, and three Fully Qualified Electricians are also Apprentice Level 2 Mechanics, one Fully Qualified I&C Technician is also a certified NCCER Electrician, and 30 Operators have attended Mechanic, Electrician, and / or I&C Technician training.

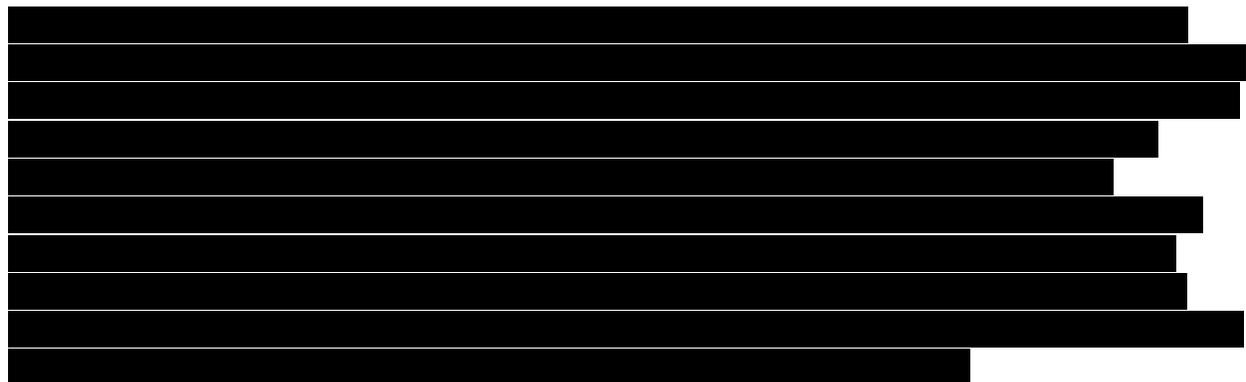
Attentive Energy also has experience maintaining a robust health and safety culture across all project activities, applying rigorous standards for Health, Safety, and Environment (HSE). Office-based teams are required to complete an initial internal safety training program including:

- Introduction to HSE in TotalEnergies
- SafetyPass training course
- Technical HSE in projects
- HSE management system principles
- Emergency Response and Crisis management (for specific roles)

The Project is dedicated to ensuring its workers obtain, maintain, and periodically refresh technical, regulatory compliance, and environmental health and safety training. HSE training will be a requirement for employees and contractors, depending on the risks they will be exposed to in the field and specific to project phases (e.g., survey, construction, and operations). This training can include, but is not limited to:

- BOSIET: Basic Offshore Safety Induction and Emergency Training (OPITO approved)
- HUET: Helicopter Underwater Escape Training
- Risk identification assessment and control (e.g., unsafe act auditing, job risk analysis, cause tree analysis, work permit)
- Personnel fitness (e.g., periodical medical check-up, vaccinations, malaria prevention, AIDS and STD prevention)
- General operation safety (e.g., stepping-handling-lifting, personal protective equipment, working at height)
- Logistics safety (e.g., lifting gear, crane, forklift, container, air, marine, motor vehicle transportation, personnel lifting)
- Mechanical safety (e.g., welding, cutting, sand blasting, painting)
- Pressure safety (e.g., compressed air, high-pressure circuits, pressure vessels, pressurized operations)
- Electricity safety (e.g., earth, lock out-tag out, hazardous areas 1-2)
- Hazardous Materials safety (e.g., fuels, acetylene, oxygen, hydrogen, explosives, radioactive materials, chemical substances, treatment products, drugs and alcohol)
- Environmental protection awareness
- Waste Management, Pollution control and environmental protection
- Lifesaving and escape techniques (e.g., first aid, firefighting, emergency response/preparedness)
- Shallow gas detection techniques
- Respect of social (local community) awareness

These task specific training courses are delivered either internally via contractors own training divisions or externally via recognized training facilities. Attentive Energy will engage with contractors to target utilization of local training facilities in New York for delivery of these training courses, where available, to fully optimize the economic contribution of the Project.



Because the offshore wind industry in the United States is still in its infancy, required workforce skills will continue to evolve and adapt to new components, conditions, and protocols. Attentive Energy will adapt to the industry’s dynamism through ongoing partnerships with existing training programs, higher education institutions, and workforce training organizations to provide staff with upskilling and retraining as industry practices shift and new technologies emerge.

1.3 Supporting Equitable Access to Jobs, Training, and Economic Opportunities Across the Offshore Wind Sector

Investing in the local workforce, adjacent industries, and Disadvantaged Communities are essential prerequisites for the Project as it assembles an equitable offshore wind ecosystem across NYC, Long Island, and the upstate regions. This ecosystem will consist of STEM education, a workforce and talent pipeline, MWBE/SDVOB supply chain incubation and support, as well as the Frontline Communities themselves that will provide talent, imagination, and enterprise to power the offshore wind industry in the coming years.

STEM Education and Maritime Cultivation Activities

Connecting Disadvantaged Communities to STEM education and maritime cultivation activities will promote industry awareness and contribute to a sustainable and equitable offshore wind workforce. Partnering STEM organizations will focus on educating young people about offshore wind, marine habitats, and maritime skills, as well as related career opportunities. Raising awareness of these opportunities among young people in middle and secondary grades will help build the industry’s profile as students begin to explore career paths and post-secondary education options. Attentive Energy’s partnership with SUNY Maritime College Center of Excellence for Offshore Wind recently resulted in an Inaugural Offshore Wind Student Immersion Day for youth on November 5th, 2022. The thirty (30) students who attended the event came from partner schools and enrichment programs sponsored by Horizon NYC, a group that provides summer and out-of-school programs for underserved communities. The event exposed the middle schoolers to future career opportunities in the emerging offshore wind industry. Surveys from after the event showed that 70% of students indicated they learned a lot about offshore wind (from power generation to turbine size), nearly 70% indicated they were interested in an offshore wind career, and 80% noted interest in making the environment healthier.

[REDACTED]

[REDACTED]

[REDACTED]

Workforce and Talent Pipeline

[REDACTED]

MWBE / SDVOB Supply Chain Support

Building an equitable offshore wind workforce ecosystem would not be complete without MWBE and SDVOB supply chain incubation and support. Attentive Energy will support MWBE and SDVOB entrepreneurs and help expand their capacity to meet offshore wind supply chain needs through start-up incubation and existing business acceleration as well as specialized community development financial institution lending targeted to small offshore wind suppliers.

Attentive Energy has established partnerships with organizations across the State to help small businesses and MWBE / SDVOB-certified businesses enter the offshore wind supply chain. One such early partnership is with Long-Island based OSW Supply Chain, a non-profit that helps over 3,000 Long Island businesses understand how they can engage in the offshore wind industry. Attentive Energy is a founding sponsor of OSW Supply Chain, which connects communities and stakeholders through various pathways, including networking calls with project developers and local businesses, an archive to spotlight articles related to the regional supply chain, and a comprehensive database to facilitate connections within the broader northeast U.S. offshore wind market. OSW Supply Chain leverages its non-profit parent company, the IWA, to prioritize the training of residents from low-income and communities of color in building an opportunity-ready workforce. OSW Supply Chain is also committed to working with local Long Island economic development entities to prioritize equity in employment for Long Island MWBEs and SDVOBs looking to enter the industry.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[Redacted text block]

[Redacted text block]

[Redacted text block]

Economic Opportunities for Frontline Communities

Finally, Attentive Energy believes frontline communities should be at the front of the line for clean energy investments and community benefits, including equitable access to quality training, jobs, and other economic opportunities. The clean energy transition must benefit the communities that have directly borne the burden of the fossil fuel economy. Therefore, Attentive Energy will make direct community investments to support equity and fund CBOs that provide critical workforce development services to constituents in the following frontline communities:

- NYC
 - [Redacted text]
 - [Redacted text]
 - [Redacted text]
 - [Redacted text]
- Long Island
- Upstate Just Transition communities

Workforce investments will be primarily targeted toward Disadvantaged Communities. Investments will provide grants to local organizations providing workforce services to these

communities, with Attentive Energy collaborating with stakeholders to ensure programming is relevant to the industry and potential job opportunities on the Project. For more information about engaging Frontline Communities, please see Section 16 and Section 18 of the Submission.

H.2: Labor Engagement

2.1 Unionized Labor’s New York Legacy

In New York, labor unions play a significant political and social role in the planning and execution of economic development projects. Union support has been instrumental in promoting Paid Family Leave, prevailing wage protections, raises to the minimum wage, and worker safety standards that are some of the most protective in the country. Unions are not only organizations formed for the promotion of worker power, but also instruments of community action, education, and social change. They speak for the interests of millions of families and can be the single best predictor of economic stability in middle- and working-class families.

Attentive Energy understands that it shares a vested interest with organized labor in hiring a sustainable workforce that will build and maintain the future of clean energy in New York. Representation through collective bargaining ensures that the work ahead will be done properly, and that this emerging industry can provide the numerous community and economic benefits that flow from good jobs at living wages.

2.2 Attentive Energy’s Labor Liaison

[REDACTED]

[REDACTED]

[REDACTED]

2.3 Attentive Energy's Labor Partnerships

For Attentive Energy, employing a unionized workforce is essential, and is anchored in an understanding that the Project creates shared wins for the environmental justice and labor movements.

Early and ongoing coordination with the labor movement can directly address skills gaps. Few workforces are equipped to pivot their training infrastructure and curricula to meet this demand.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[Redacted text block]

[Redacted text block]

In addition, Attentive Energy has had discussions with and is committed to continuing to work alongside the following stakeholders:

[Redacted text block]

[REDACTED]

[REDACTED]

[REDACTED]

2.4 Labor Partnerships Associated with SCIPs

In this Submission, Attentive Energy is offering various Proposals that include SCIP Facilities, and each SCIP Facility has its own Jobs & Workforce Plan.

[REDACTED]

[REDACTED]

H.3: Project Labor Agreements (PLAs)

[Redacted]

[Redacted]

[Redacted]

[Redacted]

PLA Efficiencies and Savings

[Redacted]

[Redacted]

[REDACTED]

3.2 Attentive Energy and a Proven History of Labor Harmony

Rise and UWUA Local 1-2 bring a successful history in the operation of Ravenswood Generating Station. UWUA has enabled Ravenswood’s safe and efficient operations for the past 60 years, with a safety record above industry standards and no work stoppages since Rise took ownership of the plant in 2017. [REDACTED]

3.3 Attentive Energy’s Commitment to Labor Wage Standards

[REDACTED]

3.4 Labor Peace Agreements (LPAs)

Attentive Energy is committed to a collaborative model of labor relations where employees can fully exercise their rights to union representation. Attentive Energy recognizes that a well-represented workforce allows for efficiency, workforce stability, and ultimately higher quality work. To build on its commitment to stability and an organized workforce, Attentive Energy is already laying the groundwork by building relationships with unions interested in representing workers in the various work sectors of the Project. Attentive Energy will continue to work with union stakeholders to craft an LPA that allows employees unmitigated free choice in their bargaining representatives for operations, maintenance, and supply chain work. Attentive Energy connected with the Climate Jobs NY coalition, and other unions, to discuss LPAs that will provide a simple, fair and non-disruptive organizing process. Attentive Energy is firmly committed to signing an LPA for the project.

H.4: Industry Wide Training and Education

4.1 Current Offshore Wind Workforce Training Efforts

[REDACTED]

[REDACTED]

4.2 Apprenticeship Opportunities

During the construction and operations phases, Attentive Energy will prioritize hiring union labor and hiring locally. The Project anticipate union workers will be required to assemble and install foundations and wind turbines generators, lay submarine and terrestrial cables, and repurpose Ravenswood. Once construction is complete, many union workers will be needed to maintain the crew transfer vessel, offshore wind turbines, and the onshore converter station. Harbor logistics workers will be required throughout all phases of the Project.

To ensure that workers from Disadvantaged Communities with a legacy of fossil fuel power generation have access to these union jobs, Attentive Energy will work with local organizations to route candidates into pre-apprenticeship, registered apprenticeship, and other labor-management training programs. Attentive Energy will partner with pre-apprenticeship, registered apprenticeship, and direct entry programs to connect under-represented populations to trade unions suited to their career goals. Attentive Energy identified and coordinate with three such programs – one which creates pathways for NYC youth and DACs, one with a veteran focus, and one designed to create union pathways for women – and community benefits funding is set aside for each.

Attentive Energy’s workforce training experience extends to the contractors and subcontractors that partner with the Sponsors across the globe. Attentive Energy will prioritize working with contractors that promote equity and inclusion in their workforces, especially those that have apprenticeship and internship programs, which are proven methods to increase candidate pools and retain talent.

[REDACTED]

4.3 Coordinating with the Jobs and Supply Chain Technical Working Group

Attentive Energy is an active member of the NYSERDA JSC-TWG, which helps connect the Attentive Energy team to the broader workforce efforts throughout New York State. This collaboration with other offshore wind developers, global manufacturers, local economic development stakeholders, academia, and State agencies will help Attentive Energy build on, not replicate, what is in the existing training ecosystem.

Recently, Attentive Energy leveraged the JSC-TWG to release an MWBE/SDVOB and Non-Profit survey in partnership with MRV Group in August 2022.³ This State-wide small business survey was designed to evaluate the challenges and business development pathways for DEIJ owned-businesses to enter the offshore wind industry. The survey asked respondents to share their experiences with procurement processes, grant applications, and DEIJ business certification, such as MWBE, SDVOB, DOBE, LGBTBE, DBE, Tribal Communities, and Justice-Involved Individuals. After completing the survey, participants became eligible for a business development award that comprises networking and mentorship opportunities, including a private session with offshore wind executives. The survey yielded over 120 responses from small businesses across New York State. Results will be published in a public report to benefit diversity, equity, and inclusion of small businesses and nonprofits in the offshore wind supply chain.

[REDACTED]

³ <https://attentiveenergy.com/attentive-energy-partners-with-mrv-group-to-launch-state-wide-survey-supporting-mwbe-and-sdvob-offshore-wind-supply-chain-in-new-york/>

[Redacted text]

[Redacted text]

4.4 Recruiting and Investing in Education, Training Programs, and Training Centers

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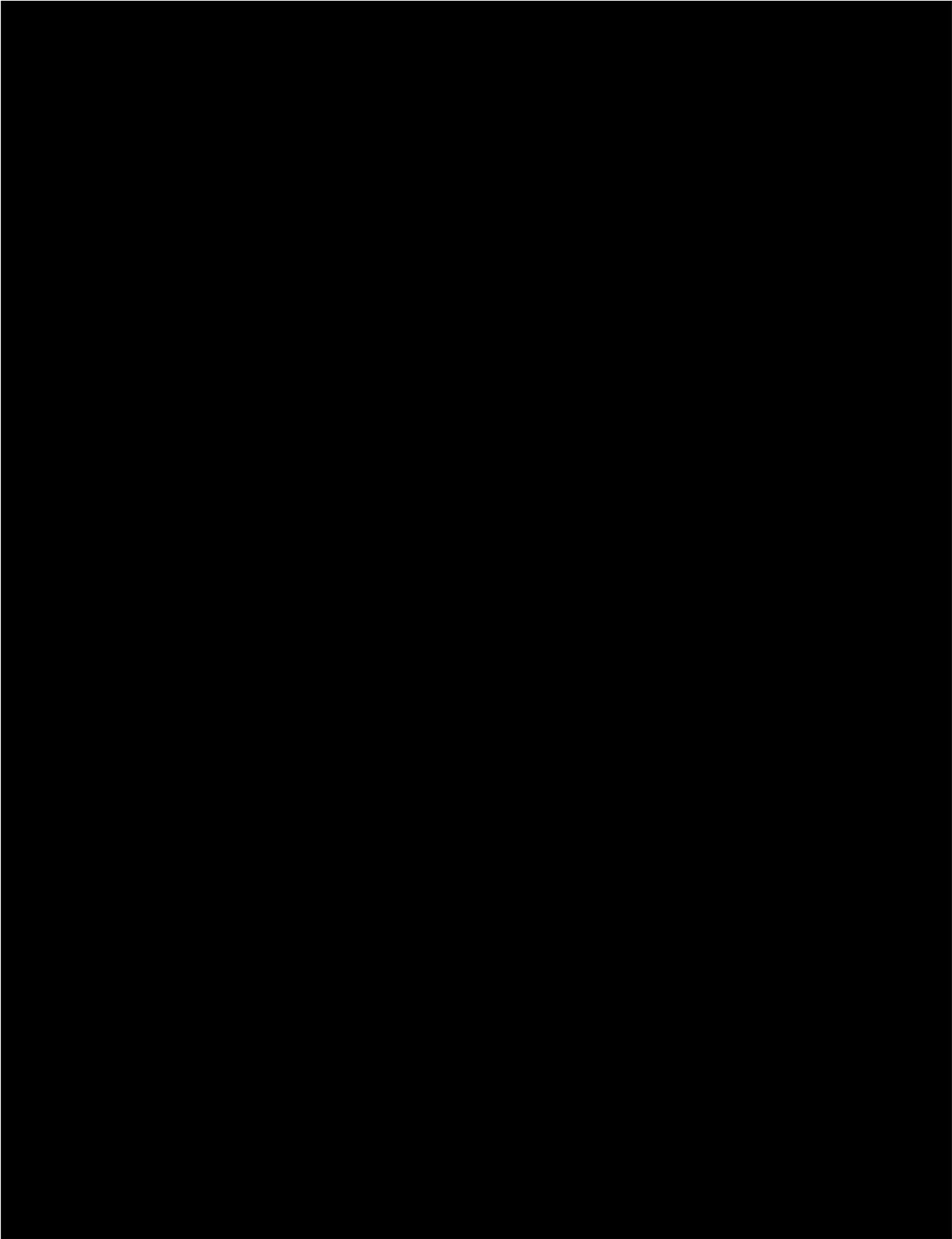
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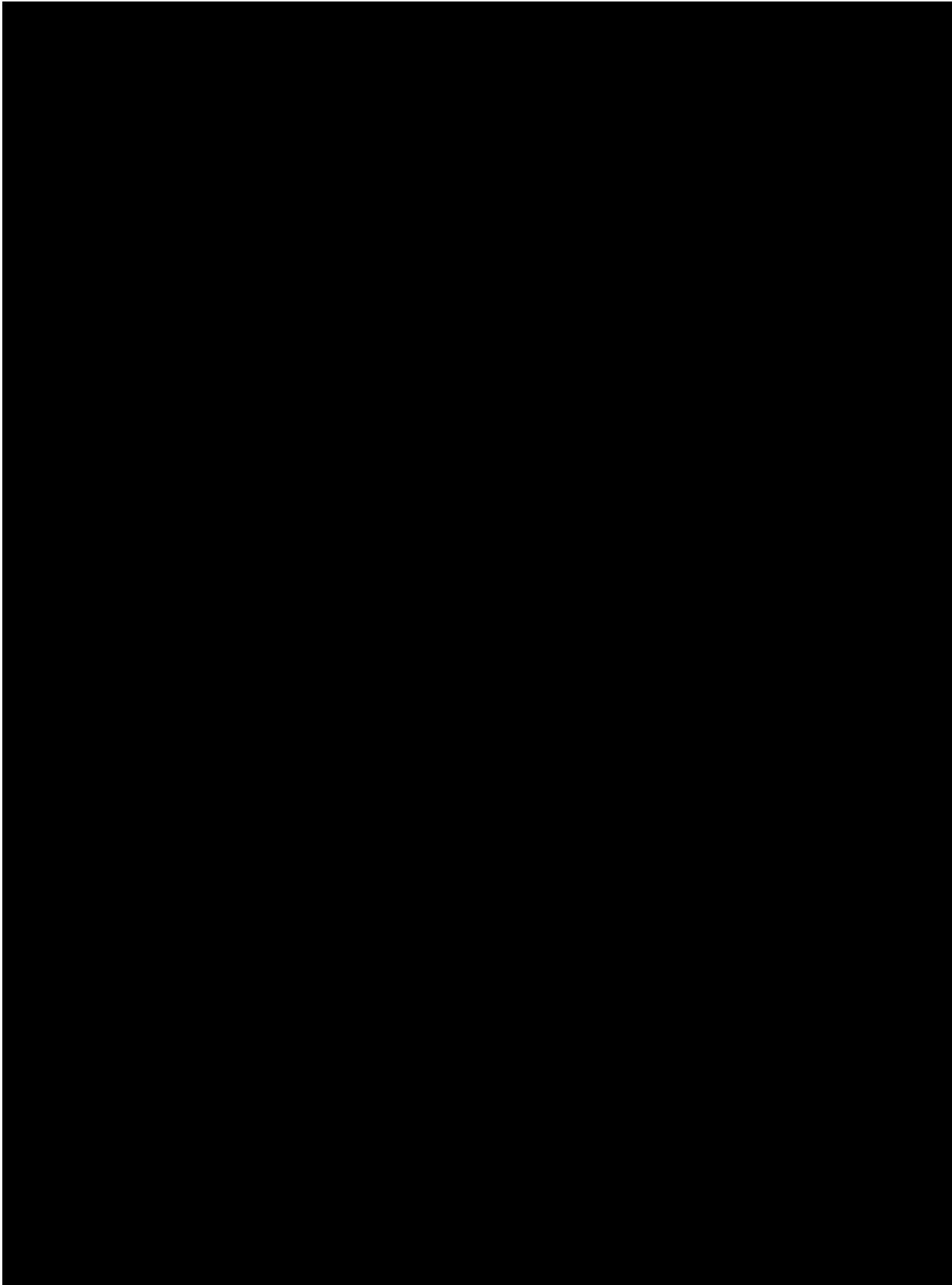
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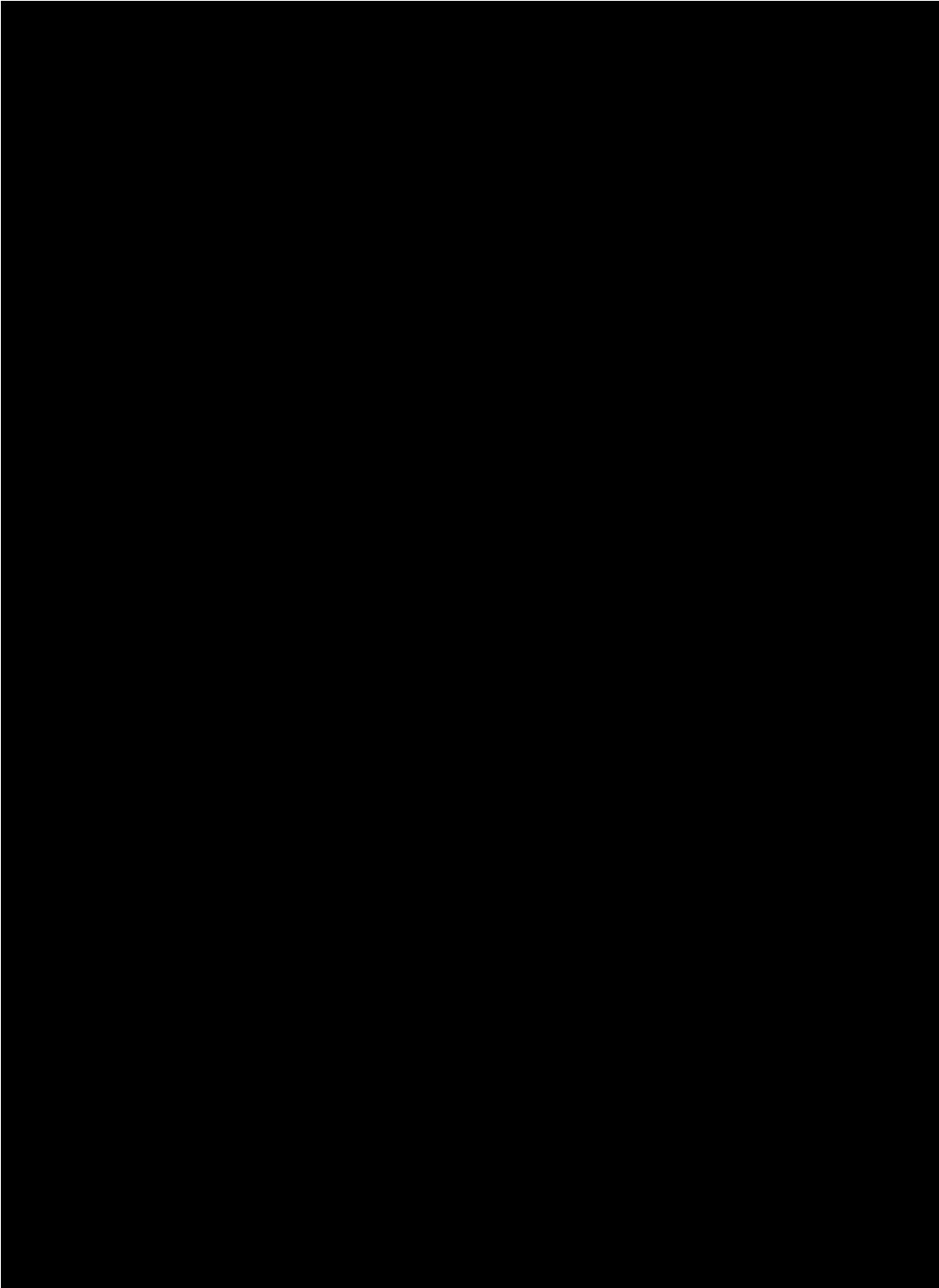
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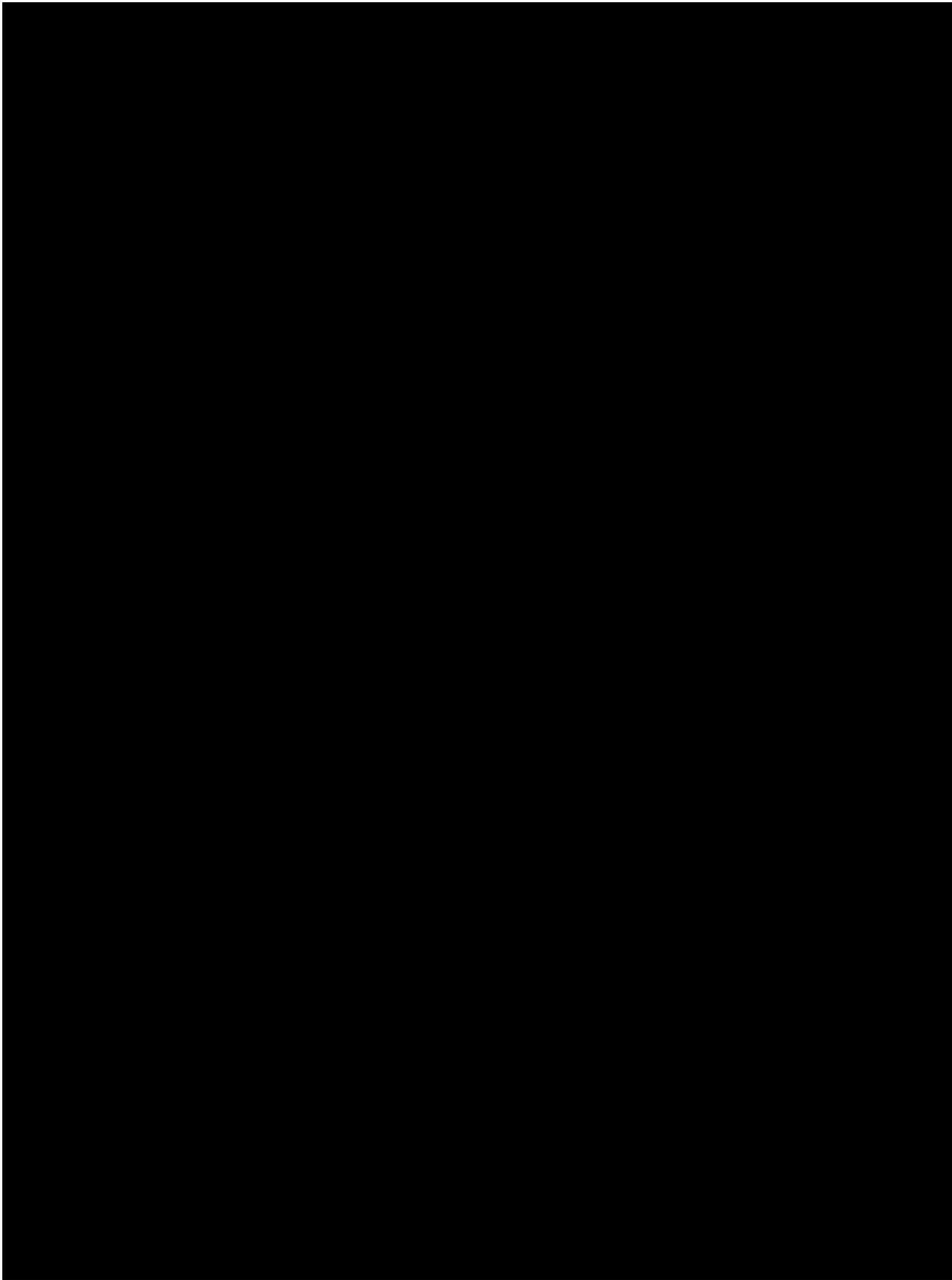
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H.5: Just Transition

5.1 Collaborating for a Just Transition

Attentive Energy is committed to ensuring a just transition for workers across New York State that are impacted by the transition away from fossil fuel energy production. A cornerstone of Attentive Energy's mission is its commitment to the UWUA Local 1-2 workers who operate Ravenswood. In partnership with UWUA Local 1-2 President James Shillito, Rise regularly updates its approximately 90 union employees on the status of renewable energy development projects, ensuring that the workforce has a transparent view of the site's future. Rise and UWUA Local 1-2 regularly join forces to advocate for a just transition, including Federal, State, and local elected officials and community based organizations. In addition to advocating for a just transition and responsible deployment of renewable energy, Rise maintains premier standards at Ravenswood for worker safety, equipment, and training, ensuring that its employees are equipped to do their best work while earning a steady, middle-class wage.

5.2 Investing in a Just Transition

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

H.6: Jobs Commitments

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