# New York Offshore Wind Academic Symposium: Spotlight on New Courses and Programs

May 8, 2024, 9:30 am – 5:00 pm

## Introduction

The New York State Energy Research and Development Authority (NYSERDA) hosted the New York Offshore Wind Academic Symposium: Spotlight on New Courses and Programs on May 8, 2024, at the New York City Economic Development Corporation’s Conference Center. Universities, colleges, and community colleges with new offshore wind programs, trainings, and courses presented on the progress of their programs and engaged with colleagues from across the region.

Pauline Huet LeBerte (Assistant Director, Offshore Wind, NYSERDA) opened the symposium by presenting on the State of New York’s Offshore Wind Industry. She emphasized the importance of offshore wind in achieving New York State’s climate goals and highlighted that the offshore wind sector is in need of skilled workers. Collaboration and information sharing is crucial to address the obstacles and challenges that the industry will face in building their offshore wind workforce.

Cecilia Kushner (New York City Economic Development Corporation) presented on the State of New York City’s Offshore Wind Industry. She highlighted the need to focus on infrastructure development and preparing supply chain and workforce opportunities to meet the city and state’s climate goals.

Jessica Dealy (NYSERDA) remarked on the results of the National Renewable Energy Laboratory (NREL) Wind Energy Workforce 2024 Report. The survey results indicated that 60% of respondents found that they had a lack of exposure to the wind energy industry and that there was a lack of awareness of job opportunities in the field. One key takeaway of the NREL assessment was that creating ties between educational institutions and the wind energy industry helps to build sustainable job pathways for a utilized labor force, revealing the significance of this symposium.

The symposium was split into four learning sessions, each with a different area of focus. Following each session there was a moderated Q&A.

## Session 1: Electrical Engineering, Electricians, Welding

### Alfred State College – Growing the Offshore Wind Workforce through Rapid Expansion of Electrician and Welding Education & Training

**Program Description**

The Alfred College School of Applied Technology will administer a training and workforce development project to train future electricians and welders with a focus on skills needed for the offshore wind power production field. The program development will be achieved through the expansion of welding and electrical programs with the facilities, equipment, and faculty.

**Timeline of Development**

The timeline of development is as follows:

* 2023
  + Renovate Welding Lab for expansion.
  + Enroll 15 new welding students for a total of 54.
  + Partner with Boards of Cooperative Educational Services (BOCES) programs on pipelines.
* 2024
  + Renovate Electrical Lab for expansion.
  + Enroll 20 new electrical students for a total of 100.
* Future
  + Expand opportunities for non-traditional students (women, students with disabilities, and economically disadvantaged students by federal Perkins standards).

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

The program can build partnerships with industry leaders on job training for individuals changing careers or on the development of micro-credentials. There is also potential to partner with additional BOCES or high school training programs in the skilled trades and to offer welding and electrical apprenticeships.

### Hudson Valley Community College – Metal Fabrication Pathways for the Offshore Wind Industry in the Capital Region

**Program Description**

The Hudson Valley Community College is expanding their two-year Welding and Fabrication Associate in Occupational Studies program to better align the curriculum and laboratory equipment to meet the demands of the offshore wind industry. The program will focus on workforce development training and will accommodate 50 students per year.

**Timeline of Development**

The timeline of development is as follows:

* 2024
  + Faculty receive nondestructive testing training.
  + Purchase lab equipment.
  + Implement 1-year Welding Certificate.
  + Include nondestructive testing and submerged architecture welding into the program.
* 2025
  + Implement program changes.
* 2026
  + Continue to offer program.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

Potential partnerships with the program include connecting with high schools with dual enrollment and career and technical education (CTE) programs. The program will seek to be more involved in future outreach events, such as with the NY State Steel Fabricators, and provide workforce development training on submerged-arc welding and nondestructive testing basics.

### State University of New York (SUNY) Polytechnic Institute – Offshore Wind Technology Workforce Training Program

**Program Description**

The SUNY Polytechnic Institute College of Engineering, in partnership with SUNY at Albany, is in the process of developing a micro-credential and project-oriented capstone program for offshore wind workforce training. “Fundamentals of Electrical and Electronic Systems of Wind Turbines” is one of three courses in the development phase. The program will also include hands-on experience and 15 to 20 students are expected to receive training every semester.

**Timeline of Development**

The timeline of development is as follows:

* 2024
  + Begin program (January).
  + Approve and develop courses.
* 2025
  + Begin courses and lab for hands-on experience (Spring).
  + Continue to offer courses.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

Internal program partners include Zhanjie Li, from the Department of Mechanical Engineering, who is leading the development of the workforce training program, and Juan Felipe Henao Ph.D., from the College of Business, who is leading research on the complementarity of different renewable energy sources in NY.

External program partners include the Ralph O’Connor Sustainable Energy Institute in John Hopkins University, PowerGEM, GE Renewable Energy Learning Center, and Eonix Energy.

### SUNY Polytechnic Institute – SUNY Poly Offshore Wind Training Team (SPOWT2)

**Program Description**

The goal of the SPOWT2 program is to develop a workforce training program to increase the number of engineers, scientists, and engineering technicians in the offshore wind industry. The program will offer two semester-long courses with 20 to 30 students each. The first course was offered this Spring, and 10 students were enrolled. Some other goals for the program include developing summer camps for K-12, developing dedicated intensive workshops for professionals, building a unique undergraduate research program related to offshore wind, establishing micro-credential programs, and creating an advanced certificate program, among others.

**Timeline of Development**

The timeline of development is as follows:

* 2023
  + Develop curriculum.
  + Develop hands-on labs.
* 2024
  + Host undergraduate researchers.
  + Host a summer camp.
  + Implement workshop with CPE.
  + Implement courses and seminar series.
* 2025
  + Develop micro-credentials.
  + Implement workshop with CPE.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

Internal program partners are with Iulian Gherasoiu, ETT, and Zhanjjie Li, who is leading a proposal to establish the SUNY Polytechnic Center of Smart Infrastructures and Sustainability.

External program partners include GE Vernova, the Ralph O’Connor Sustainable Energy Institute in John Hopkins University, the University of Massachusetts Amherst Wind Energy Center, Convergent Science, and the Academic Center for Reliability and Resilience of Offshore Wind.

### Stony Brook University (in collaboration with Farmingdale State College and Suffolk County Community College) – Offshore Wind and Renewable Power Systems Laboratory

**Program Description**

Stony Brook University’s Department of Electrical and Computer Engineering and Office of Economic Development will offer a non-credit, 30-hour program with offshore wind high-voltage direct current (HVDC) courses and training for entry-level professionals and current and graduated students. The program will provide a micro-credential and digital badge and will also focus on K-12 outreach. Two cohorts with 15 students each will be trained at no charge to participants.

**Timeline of Development**

The program timeline is as follows:

* 2024
  + Purchase equipment (May).
  + Develop content and Train the Trainer on equipment (June).
  + Purchase and install equipment in lab. Interview and recruit students at Suffolk Community College into Cohort 1 (July).
  + Begin training Cohort 1 (September).
  + Recruit 15 students for Cohort 2 (November)
  + Cohort 1 completes program (December).
* 2025
  + Assess and improve program content (January).
  + Begin training Cohort 2 (March).
  + Cohort 2 completes program (June).

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

The program has the potential to foster collaborations with offshore wind and HVDC companies and higher education and research institutes. Additionally, there is the potential to leverage more research components from the Spellman High Voltage Power Electronics Lab at Stony Brook University.

### Stony Brook University – SUPERWIND: Stony Brook University Program for Upskilling, Empowering, and Reskilling Workforce for Offshore Wind Sector

**Program Description**

The Stony Brook University College of Engineering and Applied Science will offer semester long, three-credit courses in addition to micro-credential courses on offshore wind topics. The courses offered will be a mix of fundamentals (i.e. Introduction to Wind Energy Systems) and more advanced courses (i.e. HVDC Transmission: Converters, Systems, and Direct Current Grids).

**Timeline of Development**

The timeline of development is as follows:

* 2024
  + Approve and plan courses 1-3.
  + Approve and plan micro-credentials 1-5, 7, and 8.
* 2025
  + Approve and plan courses 4-6.
  + Approve and plan micro-credentials 6, and 9-12.
  + Develop five textbooks and 12 short books.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

Working experts, including Ørsted, Eversource Energy, the National Renewable Energy Laboratory, and more are developing the world’s first textbook series for offshore wind training. At the Stony Brook Power Lab, an offshore wind testbed was established as a living laboratory for teaching and training where currently more than 20 onsite or remote users can be accommodated simultaneously.

### Moderated Q&A – Session 1

The following key takeaways resulted from the moderated Q&A at the end of this session:

1. Micro-credentials are a good way to supplement student learning and are often informed by courses offered through a program and student interest in such courses. It is important to ensure that experts are consulted when developing micro-credential courses and that they are designed to be accessible and hands-on.
2. It is important to leverage communications across institutions and within the industry. Some institutions attend events where course information is shared, such as workshops and professional organization meetings, and others disseminate information about their programs online. Career counselors are another good resource to share opportunities.
3. The industry is in need of welders and looking for ways to rapidly grow their workforce. One-year certificates can create opportunities for individuals looking to get into the industry quickly, as a degree is not needed to become a welder.

## Session 2 – Structural Engineering, Manufacturing and Maintenance

### The City College of New York (CUNY) – Zahn Innovation Center

CUNY’s Zahn Innovation Center and Office for Experiential Learning focuses on experiential learning programs with an emphasis on workforce training. The program is interdisciplinary and includes course material from multiple thematic areas. The Innovation Center is developing a series of skills-based trainings with course integration in engineering, economics and public policy, science, and architecture. There will be eight different training tracks and 320 students enrolled per year.

**Timeline of Development**

The timeline of development is as follows:

* 2023
  + Engage with Rise/Attentive Energy 1.
* 2024
  + Form steering committee and plan for initial programs.
  + Seek additional funding and renew bid.
* 2025+
  + The program will pilot skills-based learning experiences tailored to renewable energy and offshore wind.
  + Shared programs with Rangel Infrastructure Workforce initiative.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

Non-degree seeking students have the opportunity to integrate with the Rangel Infrastructure Workforce Initiative and its partners. The program hopes to build an industry consortium adding engineering, procurement, and construction, Tier 1 suppliers, and utilities who will help set strategic priorities and provide additional resources. There is also the potential for the program to connect with investors to develop additional programs and expand current ones.

### SUNY Morrisville – Renewable Energy Training Center’s (RETC) Offshore Wind Technician Training

**Program Description**

The Offshore Wind Technician Training program at SUNY Morrisville builds upon 15 years of experience in delivering industry-relevant renewable energy (RE) workforce development training through the RETC, extensive college coursework (20+ RE courses) in the RE Associate in Applied Science (A.A.S.) and Bachelor of Technology (B.Tech) degree programs and their hands-on, experiential learning facilities. The Offshore Wind Technician Training program expands training capacity and accessibility with stackable wind turbine technician micro-credentials and a one-year wind turbine technician certificate, with low-residency options, including HyFlex and summer course offerings. Wind turbine training is also embedded in the RE A.A.S. and B.Tech. degree programs.

The RETC is leveraging both on- and off-campus programs and partnerships to extend outreach through development and offering the following: 1) RE STEM workshops emphasizing offshore wind education for K-12 and college students, 2) RE professional development workshops for K-12 and technical high school/vocational teachers, and 3) RE career exploration sessions with a focus on offshore wind education for high school students, non-traditional students, transitioning workers, and guidance counselors.

**Timeline of Development**

The timeline of development is as follows:

* Spring 2024
  + Micro-credentials and Certificate developed.
  + Embedded courses offered (RE A.A.S./B.Tech.).
  + RENG courses adapted for hybrid/HyFlex/low-resid.
  + Career Exploration high school events.
* Summer 2024
  + Micro-credential courses offered: RENG 101, 102, 225 (hybrid/HyFlex/low-resid.).
  + Summer Institute: Teacher Professional Development and high school Career Exploration.
  + K-12 STEM workshops.
* Fall 2024 - Spring 2025
  + Micro-credentials and Certificate approval.
  + Wind Tech Micro-credential courses offered (*hybrid/HyFlex/low-resid.*).
  + Embedded courses offered (RE A.A.S./B.Tech.).
  + Career Awareness and Outreach.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

Wind industry partners are encouraged to contact the RETC to collaborate on technical review of their wind technician training program, establish internship opportunities, and support outreach efforts. The training center welcomes discussion of opportunities to establish articulation agreements with high school and BOCES, community colleges, other SUNY/CUNY institutions, and Global Wind Organisation (GWO) providers. SUNY-wide recruiting and outreach efforts are needed to support all Offshore Wind Training Institute partners, and RETC encourages collaboration on those efforts.

### CUNY – Offshore Wind Advisory Network

**Program Description**

The CUNY Offshore Wind Advisory Network (OWAN) was created out of the need to centralize opportunities, requests, and training information of the four CUNY schools offering clean energy and offshore wind specific trainings. The Bridges to Offshore Wind presentations held by the OWAN explore a variety of topics related to offshore wind energy including information about the variety of jobs in the field, labor market statistics, workforce gaps and current trainings, programs, and trainings available at Kingsborough Community College, the College of Staten Island, New York City College of Technology, and LaGuardia Community College.

**Timeline of Development**

Each school will be providing a minimum of three sessions annually with a minimum goal of 36 presentations given and upwards of 500 participants enrolled over the duration of the program.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

Visit the OWAN website to learn more about certificate programs, apprenticeships, and degree offerings at each school or to schedule a Bridges to Offshore Wind presentation: <https://sites.google.com/view/bridgestooffshorewind/home>

### LaGuardia Community College, CUNY – Division of Adult and Continuing Education

**Program Description**

The LaGuardia Community College Workforce Development Department will offer two training programs. The Electrical 1 training program will be a 195-hour hands-on program that will prepare individuals for careers in the electrical field and will include industry-recognized credentials. Fifty students will be trained per year and full scholarships will be available. The Offshore Wind Technician program is a 160-hour program that will prepare individuals to become wind service turbine technicians and will include industry-recognized credentials as well. The program will be free and specifically for disadvantaged communities.

**Timeline of Development**

The timeline of development for the Offshore Wind Technician Training Program is as follows:

* 2024
  + Develop lab facilities.
  + Perform instructor certification.
  + Receive GWO accreditation.
* 2025
  + Offer two cohorts of training to disadvantaged communities at no cost.
* Future
  + Offer cohorts of training, GWO Basic Safety Training (BST) and Basic Technical Training (BTT) based on demand.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

There are many opportunities to collaborate with the Workforce Development Department programs. Others looking to get involved are encouraged to provide input into the program’s future training opportunities, speak to classes, and refer their constituents to training. Additionally, partners can request a Bridge to Offshore Wind workshop.

### College of Staten Island, CUNY – Sustainable Energy

**Program Description**

The College of Staten Island is preparing to meet the demands of the offshore wind industry through multiple programs. The institution is expanding their laboratory options to include hands-on and applied learning opportunities specific to the offshore wind industry. Other programs that will be offered include welding, machinist, and electrical technician programs.

**Timeline of Development**

* 2023
  + Launched second cohort for free HVAC training.
  + New York State Department of Labor Apprenticeship Designation.
* 2024
  + Received multiple grants to scale up programs.
  + Launch Welding and Machinist Training Programs.
* 2025
  + Launch electrical technician training program.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

Industry partners are needed to support apprenticeship efforts and to offer mentorship to students. The program will forge collaborations to develop and maintain a curriculum that aligns with the industry standards to address current and emerging workforce needs.

### New York City College of Technology (City Tech), CUNY – Continuing Studies Center

**Program Description**

The City Tech CUNY Continuing Studies Center provides professional upskilling and workforce development training relevant to offshore wind career pathways. Courses include Fundamentals of Electricity I and II, AWS ARC Welding certification prep, Mig Welding, TIG Welding, Print Reading, Construction Cost Estimating, AutoCAD and Revit. City Tech’s Department of Construction Management offers a 20-credit certificate in Construction Management and degrees in Electrical, Mechanical, and Civil Engineering.

City Tech is currently working on a Manufacturing Technician program which will ready learners for jobs in Offshore Wind manufacturing and assembly jobs.

**Timeline of Development**

The timeline of manufacturing technology development is as follows:

* 2023
  + Identify credentials.
  + Establish employer partnerships.
  + Secure funding.
* 2024
  + Work with faculty.
  + Build lab.
  + Purchase equipment.
* 2025
  + Perform outreach and registration.
  + Deliver Fall 2025 cohort to City Tech degree and non-students.
  + Prepare program reports and outcomes.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

The primary program goal is to develop connections between students and manufacturers in Brooklyn. There is the potential to partner with South Brooklyn manufacturers to build a training lab and listen to offshore wind project managers to understand skill gaps. Additionally, the program is seeking assistance with equipping their training facility for manufacturing technicians and plans to expand upon existing partnerships to prepare students for apprenticeship pathways.

### Moderated Q&A – Session 2

The following key takeaways resulted from the moderated Q&A at the end of this session:

1. Equinor will be developing an Offshore Wind Learning Center at their South Brookly Marine Terminal complex in Sunset Park, New York. Symposium attendees discussed the benefits and possibility of implementing a job research and training board to post offshore wind opportunities in a centralized location.
2. A major goal of offshore wind-related programs in New York is the coordination of outreach across institutions. The network of institutions in New York is large and each serves different geographic areas, so coordination of opportunities can be difficult. Industry partners and stakeholders are needed to help facilitate the coordination of opportunities.
3. Wind service turbine technicians are not going to be hired through the union so there is a need to strengthen the pipeline between training programs and employers.

## Session 3 – GWO, Safety, Maritime

### Farmingdale State College – Preparing Workforce for Cutting Edge Manufacturing in Offshore Wind

**Program Description**

The Farmingdale State College School of Engineering began developing courses in offshore wind manufacturing about five years ago. Some of the program goals include enriching existing relevant courses in the School of Engineering, providing outreach to underserved communities, and conducting workshops to inform and engage youth about opportunities in offshore wind manufacturing. One hundred and fifty students are expected to receive educational trainings per semester.

**Timeline of Development**

The timeline of development is as follows:

* 2024
  + Perform gap analysis.
  + Engage with industry.
  + Enhance curriculum.
* 2025
  + Integrate modules.
  + Conduct community engagement and outreach.
  + Develop educational partnerships.
  + Conduct public awareness campaigns.
* Future
  + Acquire equipment.
  + Develop and launch micro-credentials and certificate programs in advanced manufacturing for offshore wind.
  + Expand the curriculum.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

There are opportunities for the program to engage with local manufacturing companies and to collaborate with other colleges and universities to offer complementary offerings in training programs and share resources and expertise. The program will also work with local manufacturers to provide hands-on internship experiences and plans to collaborate with high schools and community colleges to assist with workforce pipeline development.

### Farmingdale State College – Offshore Wind Workforce Micro-credential

**Program Description**

The Farmingdale State College School of Engineering plans to expand their educational and training programs to meet the needs of the offshore wind industry by developing an offshore wind workforce micro-credential. A total of 40 individuals will be enrolled in the micro-credential program.

**Timeline of Development**

The timeline of development is as follows:

* 2023
  + Perform needs assessment.
  + Discuss courses and topics.
* 2024
  + Purchase equipment.
  + Develop course content.
* 2025
  + Provide official course offerings.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

The program will be partnering with other higher education institutions for joint offerings, offshore wind developers and supply chain companies to add and modify technical contents to better meet the industry needs, and community colleges for pipeline building.

### SUNY Maritime College – Professional Mariner Training and Offshore Wind Center of Excellence

**Program Description**

The SUNY Maritime College Department of Professional Mariner Training/Offshore Wind currently offers GWO BST, BTT, and will offer Dynamic Positioning courses. An undergraduate and graduate offshore wind curriculum and customized, external-facing ancillary technical courses are in development. An estimated 500 GWO BST applicants are expected per year.

**Timeline of Development**

The timeline of development is as follows:

* 2024
  + Rollout GWO BST courses.
  + Rollout BTT courses.
  + Develop Dynamic Positioning Program.
  + Develop offshore wind curriculum.
* 2025+
  + Implement Dynamic Positioning Program.
  + Grow GWO and offshore wind programs to a point of sustainability.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

The program has executed letters of intent, term sheets, and memorandums of understanding with numerous offshore wind developers including Attentive Energy/TotalEnergies, National Grid/RWE, Equinor, and Vineyard Offshore Wind. Furthermore, the program will continue to engage with the community and industry.

### Kingsborough Community College, CUNY – Maritime and Vessel Efforts

**Program Description**

The Kingsborough Community College Division of Workforce Development, Continuing Education, and Strategic Partnerships offers a variety of maritime programs oriented towards offshore wind including a free Deckhand Training certification program and a four-year Maritime Technician Apprentice Program. The institution’s partnership with the Seafarers International Union and its Introduction to Welding for Offshore Wind Energy Careers course also provide training to students to prepare them for work in the offshore wind industry.

**Timeline of Development**

The timeline of development is as follows:

* Fall 2025
  + Introduce GWO BST.
  + Introduce Crew Transfer Vessel simulator lab training.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

Kingsborough Community College is seeking to expand partnerships and collaborations and is actively seeking donors to further extend and expand their existing programs.

### Hudson Valley Community College – Strengthening the Offshore Wind Energy Workforce: Creating the Capital Region Pipeline for Wind Turbine Service Technicians in New York State

**Program Description**

The School of STEM at Hudson Valley Community College offers a variety of associate degrees, certificates, and micro-credentials for students, and professional, academic, and workforce development opportunities for non-degree students. The Wind Energy Fundamentals micro-credential will be a non-credit credential open to anyone and will be comprised of entry-level wind energy and safety courses.

**Timeline of Development**

The timeline of development is as follows:

* 2024
  + Add new courses: Introduction to Wind Power and Wind Power Safety.
  + Add non-credit micro-credential: Wind Energy.
  + Order lab equipment.
  + Offer OSHA10 Training.
* 2025
  + Teach three cohorts (48 participants total) at no cost.
* 2026+
  + Continue workforce development training.
  + Adapt to credit programs.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

Collaborations with Hudson Valley Community College are necessary since the college is not located near any offshore wind farms. The college can potentially collaborate with high school dual enrollment CTE programs, provide virtual training to high schools, and connect with other institutions with advanced programs.

### American Clean Power (ACP) Association and Clean Power Institute

**Program Description**

The Clean Power Institute is focused on attracting and retaining individuals with diverse experiences and backgrounds into the offshore wind industry. The Institute will build on the industry’s commitment to safety by establishing clear career pathways and standardizing training for entry level wind technicians as well as develop tools for workforce organizations, community colleges, and training centers.

**Timeline of Development**

The timeline of development is as follows:

* 2024
  + Launch Clean Power Institute.
  + Develop standards and guidelines.
  + Commit to program adoption.
  + Pilot development of courses and aligned training material.
  + Support recruitment in key roles and advanced diversity, equity, and inclusion.
* 2025
  + Advance 2024 priorities.
  + Launch accreditation and certification.
  + Develop curriculum and supporting content.
* 2026+
  + Advance 2024-2025 priorities.
  + Assess industry trends to develop safety, skills, and competency needs.
  + Support recruitment and training in additional roles.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

Non-ACP members can participate in the Clean Power Institute’s standards work and join ACP Standards and Committee efforts for industry collaboration and alignment. Additionally, others can support recruitment, training, and curriculum development as well as adopt and commit to ACP standards and guidelines.

### Moderated Q&A – Session 3

1. Multiple programs highlighted during the symposium are focusing on making their opportunities accessible. Some ways they are prioritizing accessibility include offering programs without prerequisites, scheduling training and education on nights and weekends, not implementing age restrictions on enrollment, and decoupling degree requirements for honorably discharged veterans.
2. One of the issues the offshore wind industry is facing is employing individuals after they receive training. Additionally, individuals often cannot take time off to receive training, especially if they are unpaid. Offering housing and food or free tuition are some ways to alleviate financial burdens that may be imposed during training.
3. A common barrier faced by those looking to enter the offshore wind workforce is the ability to swim. Addressing swim competency in discussions about the offshore wind energy workforce will foster efforts to increase the accessibility of swim lessons.

## Session 4 – Innovation and Outreach

### Farmingdale State College – Sustainable Business and Technology Online Workshops

**Program Description**

The Farmingdale State College School of Business and School of Engineering will develop a series of self-paced online training workshops designed for Minority and Women Owned Business Enterprises (MWBEs) and small businesses seeking to get involved in the clean energy and offshore wind industries. The workshops will be short, non-credit bearing, and open to 100 participants annually.

**Timeline of Development**

The timeline of development is as follows:

* 2023
  + Deploy industry survey.
  + Design workshop topics.
* 2024
  + Identify instructors.
  + Develop workshop content.
  + Pilot workshops for feedback.
* 2025
  + Launch program.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

In the future, the college is interested in offering in-person, certificate or degree-based programs and can partner with developers and other institutions for program sharing and future development. There is the potential for collaboration to provide additional support for project management training and other pathway programs.

### Stony Brook University – Navigating the Clean Energy Transition of the Offshore Wind Industry

**Program Description**

The School of Professional Development at Stony Brook University will launch an interdisciplinary program for emerging, existing, and transitional professionals to address the clean energy transition of the offshore wind industry. The program will aim to share knowledge, perspectives, and insight from both academic and industry professionals across the clean energy ecosystem and work to foster a community dialogue among professionals in leading and supporting the transition across sectors. The 30-hour non-credit program will be administered through synchronous zoom modules in two cohorts.

**Timeline of Development**

The timeline of development is as follows:

* 2023
  + Submit Offshore Wind Training Institute grant application.
* 2024
  + Grant awarded.
  + Develop and launch the program.
  + Recruit for the program.
  + Develop best practices and prepare for Cohort 2.
* 2025
  + Launch Cohort 2.
  + Hold focus groups with employers and participants.
  + Strategize for future program development.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

The program will include focused outreach to diverse communities and is already engaging with experts in academia, developers, utilities, and regulators to understand what new knowledge and skills will be imperative to meet workforce needs.

### Suffolk County Community College – Strengthening the Energy Education Pipeline (SWEEP)

**Program Description**

Suffolk County Community College has plans to develop courses that will provide high school and college students opportunities to develop skills relevant to the offshore wind industry. Recently, the institution expanded their existing welding training program and will be developing composites courses for students and conducting offshore wind Career Exploration workshops which will also be available to high-schoolers and community members. The program also plans to offer a High School Offshore Wind Turbine course that introduces wind energy concepts to students.

**Timeline of Development**

The timeline of development is as follows:

* 2023
  + First cohort of Welding and Intro to Composites students complete program.
  + Tested 11 students for AWS.
  + Conducted one offshore wind career exploration workshop.
  + Developed curriculum for High School Offshore Wind Turbine summer course.
* 2024+
  + Second cohort of Welding and Intro to Composites students complete program.
  + Develop 60-hour composites course.
  + Conduct two offshore wind career workshops.
  + The first cohort of high school students complete the 45-hour Offshore Wind Turbine course.
  + Launch inaugural cohort of 60-hour Composites Course (Spring 2025)
  + Hold nine Offshore Wind Career Exploration workshops throughout 2024 and 2025.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

The program has already begun to build connections and develop partnerships with the National Offshore Wind Training Center, the Nassau and Suffolk Building and Construction Trades Council, Long Island Federation of Labor, and Community Offshore Wind.

### SUNY University at Buffalo – Center for Industrial Effectiveness

**Program Description**

The Center for Industrial Effectiveness at the University at Buffalo aims to spark interest in offshore wind and renewable energy careers, create awareness of New York’s array of training programs, and focus on outreach to underserved and underrepresented populations. The program currently offers an online course focusing on the fundamentals and job opportunities of renewable energy and plans to launch more courses in the future. The University at Buffalo is a member of the SUNY Clean Energy Consortium, a collaboration between SUNY institutions to cooperatively create academic programs and trainings to meet the needs of students and the offshore wind industry.

**Timeline of Development**

The timeline of development is as follows:

* 2023
  + Kickoff Project 1.
  + Revise Renewable Energy Fundamentals Course.
  + Develop resources.
  + Update program listings.
* 2024
  + Kickoff Project 2.
  + Deploy industry survey.
  + Launch supply chain course.
  + Hold events.
  + Provide course support.
  + Deploy follow-up surveys.
* 2025
  + Hold events.
  + Provide course support.
  + Deploy follow-up surveys.
  + Expand Consortium.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

To connect with the SUNY Clean Energy Consortium, contact Jennifer Flagg at [JLFlagg@buffalo.edu](mailto:JLFlagg@buffalo.edu).

To learn more about the industry survey and Supply Chain course, contact Meg Hagen at [MeManley@buffalo.edu](mailto:MeManley@buffalo.edu).

To learn more about Lunch and Learn events, Renewable Energy Course enrollment, and resources for learners, contact Farida Hosaini at [FaridoHo@buffalo.edu](mailto:FaridoHo@buffalo.edu).

### SUNY University at Albany – Offshore Wind Technology Workforce Training Program

**Program Description**

The SUNY University at Albany College of Nanotechnology, Science, and Engineering is planning to develop, in partnership with SUNY Polytechnic Institute, a micro-credential and project-oriented capstone program for offshore wind energy workforce training for college students. Three courses, including a hands-on experience, are being developed and 45 to 60 students are expected to receive educational training per semester.

**Timeline of Development**

The timeline of development is as follows:

* 2024
  + Start program (January).
  + Curriculum Committee to approve courses (complete).
  + Develop courses.
  + Start courses and lab for hands-on experience (Fall).
* 2025
  + End program (Spring).
  + Continue to offer courses in the future.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

One internal program partner is Bruce H. Bailey, PhD, at the University of Albany, who is leading an effort to build awareness of the operational characteristics of the planned offshore wind development along the eastern seaboard. Another internal partner is the Department of Atmospheric and Environmental Sciences and the Atmospheric Science Center at the University of Albany.

External program partners include the Buffalo State Center for Integrated Studies, Nanoscience, and Nanotechnology, PowerGEM, Custom Electronics, Inc., and Eonix Energy.

### SUNY Oneonta – Oneonta/Otsego Northern Catskill, Board of Cooperative Educational Services Offshore (ONC BOCES) Wind Energy Pipeline Program

**Program Description**

The ONC BOCES Wind Energy Pipeline Program is working to develop sustainable energy courses, course sequences, and labs resulting in micro-credentials to align with the growing sustainable energy industry. The program will also perform outreach to expand awareness of career opportunities in offshore wind through micro-credentials and K-12 and community education at the A.J. Read Science Discovery Center. Approximately 25 students per year are expected to receive educational training and over 1,000 individuals will be reached through program outreach.

**Timeline of Development**

The timeline of development is as follows:

* Summer 2024
  + Develop BOCES courses and align curriculum.
  + Develop Oneonta Sustainable Energy course.
  + Establish Demonstration Lab.
  + Create micro-credentials.
  + Plan micro-credential capstone project.
* Fall 2024
  + Initiate micro-credential institutional approval.
  + Offer and assess BOCES prototype curricular model.
  + Engage industry partners to evaluate and enhance Demonstration lab.
  + Plan micro-credential capstone project.
* Spring 2025
  + Offer Oneonta Sustainable Energy course (and Oneonta micro-credential)
  + Offer and assess BOCES prototype curricular modules.
  + Build and assess wind micro-credential capstone project.
  + Display wind and sustainable energy exhibit.

**Potential for Partnerships, Assistance, Job Pathways and Collaborations**

Some of the program goals include developing a flexible curriculum that aligns with BOCES learning outcomes and sustainable energy course objectives, identifying academic industry partners for students who desire to transition to engineering programs or careers in wind energy, and identifying and procuring equipment and space for a productive renewable energy demonstration lab.

## Closing Meeting Discussion

Participants highlighted the importance of holding events like the Academic Symposium moving forward, as the Symposium can be a useful tool to bridge the gap between employees and employers in the offshore wind industry. There was discussion about increasing the frequency of such events to twice a year. Another takeaway of the discussion is that it will be important to understand the needs and challenges of employers when it comes to hiring and retention. Other areas of focus that would be beneficial to discuss in future meetings include internship opportunities and micro-credential best practices.

### Resources

#### NYSERDA Websites

NYSERDA’s Offshore Wind Website: [www.nyserda.ny.gov/offshorewind](http://www.nyserda.ny.gov/offshorewind)

[www.offshorewindtraining.ny.gov](http://www.offshorewindtraining.ny.gov)

*Learning from the Experts* webinar series: [www.nyserda.ny.gov/osw-webinar-series](http://www.nyserda.ny.gov/osw-webinar-series)

#### Other Websites

[www.offshorewindfacts.org](http://www.offshorewindfacts.org)

[www.OSWLongIsland.com](http://www.OSWLongIsland.com)

For questions, please contact [Jessica.Dealy@nyserda.ny.gov](mailto:Jessica.Dealy@nyserda.ny.gov) or [offshorewind@nyserda.ny.gov](mailto:offshorewind@nyserda.ny.gov).