

NJ PATHWAYS TO CAREER OPPORTUNITIES

Aligning Education to Build an Innovative Workforce

Welcome.

We ask that you please take this time to mute yourself, thank you. In the chat, please provide your name, title and organization.

Infrastructure & Energy Collaborative Meeting Theme: Industry Recognized Credentials and Stackable Pathways



NJ Pathways to Career Opportunities

New Jersey's Community Colleges and the New Jersey Business and Industry Association have joined together to launch an unprecedented education and training pathways initiative.



AARON FICHTNER

President, New Jersey Council of County Colleges



MICHELE SIEKERKA, ESQ.

President & CEO, New Jersey Business and Industry Administration





Please use the hashtag:

#NJPathways

To share your paticipation in the NJ Pathways to Career Opportunities Industry Collaborative Meetings









TODAY'S AGENDA:

- Importance of Industry-Valued Credentials When Designing Pathways
 - Betsy Tessler Sr. Research Associate (MDRC)
 - Jennifer Freeman Sr. Director (Jobs for the Future)
- New Jersey Offshore Wind Update
 - <u>Favio German</u> Sr. Program Officer, Wind Institute Development (New Jersey Economic Development Authority)
- Innovative Pathways Partnership
 - Offshore Wind Safety and Training A Multi-Prong Collaboration
 - <u>Favio German</u> Sr. Program Officer, Wind Institute Development (New Jersey Economic Development Authority)
 - Sherwood Taylor Sr. Director, Workforce Development (Atlantic Cape Community College)
 - <u>Brigette Satchell</u> Dean, Career and Technical Education (Rowan College of South Jersey)
- Insights on Current Industry Trends from the Industry Leadership Team
 - <u>Stephanie Staub</u> Director, Infrastructure & Energy Strategy and Workforce Partnerships (New Jersey Community College Consortium for Workforce & Economic Development)
- Comprehensive Cross-Education Sectors Pathway Model
 - <u>Catherine Frugé Starghill, Esq.</u> Sr. Director, Strategy and Partnerships (New Jersey Community College Consortium for Workforce & Economic Development)

THE IMPORTANCE OF INDUSTRY-VALUED CREDENTIALS WHEN DESIGNING PATHWAYS



BETSY TESSLER
Senior Research Associate,
MDRC



JENNIFER FREEMAN
Senior Director, Jobs for the Future





New Jersey Offshore Wind Update

FAVIO GERMAN

Sr. Program Officer, Wind Institute Development, New Jersey Economic Development Authority







Offshore wind means onshore jobs



100% Clean Energy by 2050

to promote resilience and combat climate change

A Stronger and Fairer New Jersey economy that works for everyone







STRONG POLITICAL COMMITMENT AND CENTRAL LOCATION



7,500 MW OF PROCUREMENT OVER THE NEXT 15 YEARS



PORT INVESTMENTS TO SUPPORT OFFSHORE WIND



A WORKFORCE AND SUPPLY CHAIN GROWTH STRATEGY

NJ IS STRATEGICALLY LOCATED



The NJ Board of Public Utilities (NJBPU) is issuing a new solicitation every two years through 2028

| Project | Capacity Target/ Award (MW) | Issue Date | Submittal Date | Award Date | Est. Commercial Date |
|-------------------------|-----------------------------------|------------|-------------------|------------|----------------------------|
| Ørsted Ocean Wind I | 1,100 | Q3 2018 | Q4 2018 | Q2 2019 | 2024 |
| Ørsted Ocean Wind II | 1,148 | Q3 2020 | Q4 2020 | Q2 2021 | 2029 |
| Atlantic Shores | 1,510 | | | | 2028 |
| 3 | 1,200 | Q1 2023 | Q2 2023 | Q4 2023 | 2030 |
| 4 | 1,200 | Q2 2024 | Q3 2024 | Q1 2025 | 2031 |
| 5 | 1,342 | Q2 2026 | Q3 2026 | Q1 2027 | 2033 |





New Jersey is taking a value-oriented approach to offshore wind development, including economic benefits to the state and residents

Developers must demonstrate positive economic and environmental benefits for New Jersey

New Jersey's first three projects

Ørsted's Ocean Wind I:

- EEW monopiles fabrication in Paulsboro, NJ
- \$15M to support small, women, and minority-owned businesses and sustainability efforts

Ørsted's Ocean Wind II:

- Nacelle assembly facility at NJ Wind Port
- Expansion of EEW facility
- \$8M to support SMWVBE businesses & workforce development
- \$1.5 million scholarship and career development program

Atlantic Shores:

- Nacelle assembly facility at NJ Wind Port
- Monopiles fabrication with EEW Paulsboro, NJ
- · Green Hydrogen pilot project
- \$14M+ for workforce development

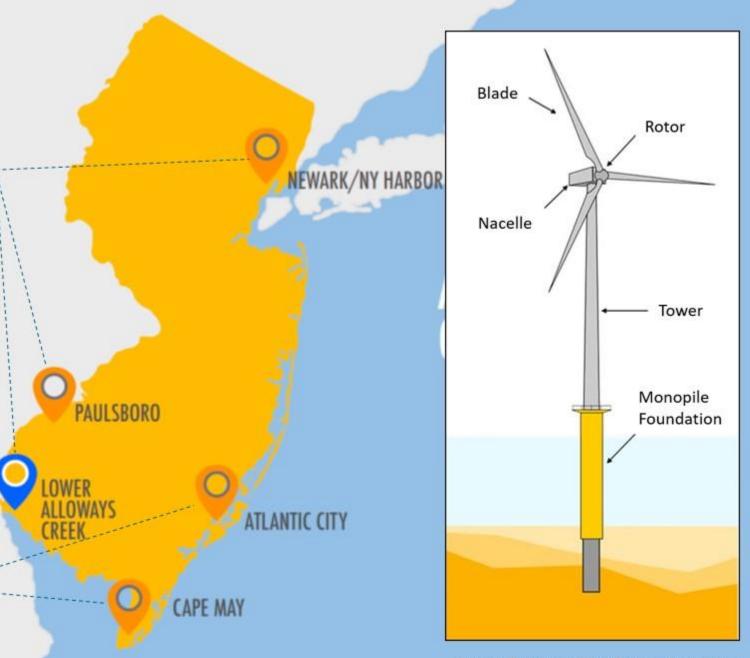
Offshore wind-ready ports

Manufacturing: Fabrication of components; includes <u>EEW</u> monopiles at Port of Paulsboro and <u>nacelle assembly</u> at NJ Wind Port

Marshalling: NJ Wind Port will include final assembly and transport of OSW components; anchors manufacturing

Operations & Maintenance:

Atlantic City selected for Ørsted and Atlantic Shores O&M



Source: European Wind Energy Association

People: New Jersey Wind Institute for Innovation and Training



OF A ROBUST AND DIVERSE
OFFSHORE WIND
WORKFORCE



CHAMPION RESEARCH AND
INNOVATION THAT
UNLOCKS MARKET
POTENTIAL

New Jersey Wind Institute Programs Underway



WORKFORCE DEVELOPMENT

- Atlantic Cape Community College developing a GWO Basic Safety & Sea Survival facility
- Rowan College of South Jersey designing stackable wind turbine tech training programs
- Gloucester County Institute Technology expanding welding and painting training
- OSW Workforce Gap Analysis Study in progress



RESEARCH & INNOVATION

- Joined the National OSW R&D Consortium
- RFP for flagship OSW research and testing facility feasibility study
- Establishing Wind Institute Fellowship to support university student research
- Partnering with Rutgers, Rowan, NJ Institute of Technology, and Montclair
 State University for offshore wind learning initiatives

Global Wind Organization (GWO) Basic Safety & Sea Survival Training

- Grant Challenge Issued in March 2021
- Awarded \$3 million grant to Atlantic Cape Community College (ACCC) in July 2021 to develop GWO certified safety training facility and program
- ACCC is partnering with Arcon Training Center, AIS Training, and 3t Energy Group
- Training will begin by the end of 2022









Wind Turbine Technician Training

- Grant Challenge Issued in June 2021
- Awarded \$819,019 to Rowan College of South Jersey in September 2021 to develop suite of stackable credentials
 - Wind Turbine Technician Career & Technical Education (CTE) Certificate
 - Wind Turbine Technician Academic Certificate
 - Associate of Applied Science (AAS) degree in Wind Power and Turbine Technology
- Certificates will begin by 1Q 2023; AAS will begin by 3Q 2023











Subarc Welding & Painting Training

- MOU executed with Gloucester County Institute of Technology (GCIT) in December 2021
- Piloting expansion of welding program to include subarc welding and automotive collision program to include marine coating applications
- EEW secured donated equipment and pro bono Train the Trainer Program from Lincoln Electric
- Opportunity to partner with other vocational schools/county colleges to generate robust talent pipeline









Wind Institute Fellowship

- Funding will be provided to Rutgers University, Rowan University, Montclair State University, and New Jersey Institute of Technology to stand-up a paid fellowship program for undergrad and graduate students
- 24 Fellows will work with faculty to conduct research on topics in OSW, attend cohort meetings, and present findings at an OSW symposium in April 2023
- The pilot program will begin in by Fall 2022 and conclude by Summer 2023















University Initiatives to Advance Offshore Wind

- Partner universities will receive \$125,000 to advance initiatives that lead to long-term institutional expertise in OSW
- Potential initiatives can include new curriculum development, pre and post-doctoral positions, faculty training, and other activities that support OSW learning















We'd love to connect with you!



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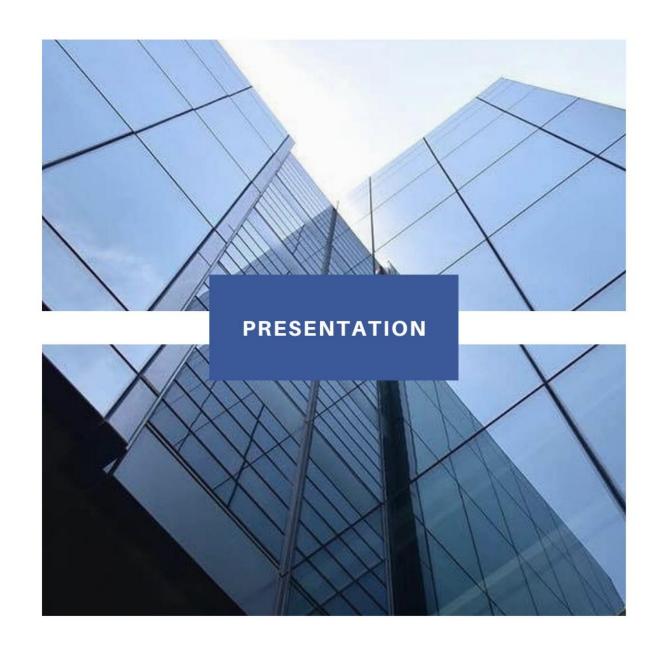


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Innovative Pathways Partnership of Collaborative Partners

Offshore Wind Safety and Training – A Multi-Prong Collaboration





Atlantic Cape Community College

The Wind Training Center (Fall 2022)

- 1,700 sq. ft. faculty, Worthington Atlantic City Campus
- Gardner's Basin, Atlantic City: Sea Survival Training

GWO Basic Safety Training w/Sea Survival (BST)

- 40 hours, one week
- Module 1: First Aid
- Module 2: Manual Handling
- Module 3: Fire Awareness
- Module 4: Working at Heights
- Module 5: Sea Survival

Rowan College of South Jersey

- Wind Turbine Technician Training Program (Early 2023)
 - 750-800 hours projected
 - Proposed Modules
 - GWO Basic Technical Training
 - Foundations of Wind Energy
 - Wind Turbine Safety
 - Hydraulic Systems: Fundamentals and Troubleshooting
 - Rotor Blades: Inspection, Maintenance, and Repair
 - Electrical Fundamentals and Wind Turbine Electric Systems
 - Mechanical Systems
 - Wind Turbine Maintenance
- Wind Turbine Technician Apprenticeship Program
- Wind Turbine Academic Certificate
- Associate of Applied Science (AAS) degree: Wind Power and Turbine Technology

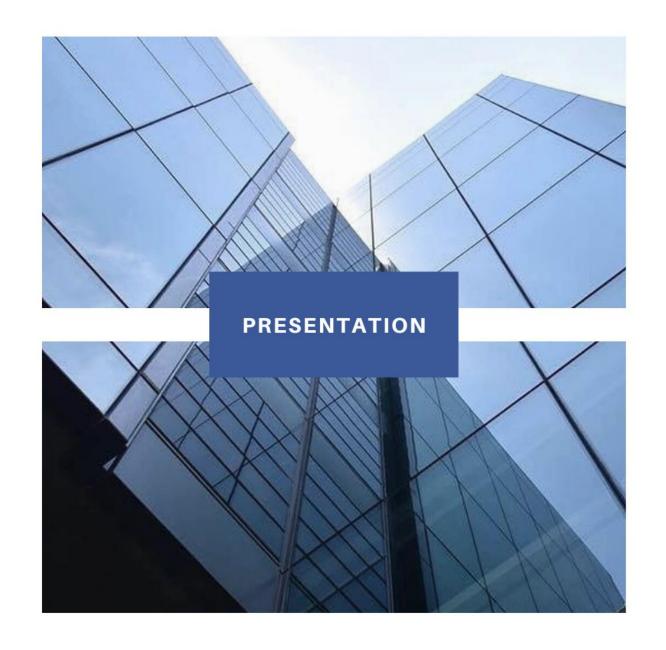
Insights on Current Industry Trends from the Industry Leadership Team



STEPHANIE STAUB

Director of Infrastructure & Energy Sectors
Strategy & Workforce Partnerships







Industry Leadership Team Quarterly Meetings March 15 – 18, 2022





Health Services

AmeriHealth

Bergen New Bridge

Community Options

Cooper University

Hackensack Meridian

Healthcare Assoc

Summit Health

Horizon BCBS

Preferred Behavioral

Visiting Nurse Assoc

Infrastructure

& Energy

American Water

Atlantic City Energy

IBEW 102

Naik Consulting

NJ Infrastructure Bank

NJ Resource

Operating Engineers

Orsted

T&M Assoc

United Airlines

Verizon

Technology

& Innovation

Amazon

AT&T

BluLabs

Cisco

Cognizant

MarketSmith

Microsoft

Nitto

One-Huddle

Soligeniz

Manufacturing

& Supply Chain

Accurate Box Co.

Amazon

FedEx

NJMEP

Sanofi

Unex Manufacturing

Union Ware



INFRASTRUCTURE & ENERGY IN NEW JERSEY



TRENDS

- → A greater emphasis is now being placed on energy efficiency and sustainability throughout sectors and in home, fueling demand for upgrades/repairs.
- → New technologies are changing how tasks get done (artificial intelligence, drones, 3-D printing, and others).
- → The energy sector is rapidly growing alongside the expansion of offshore wind, electric vehicles, and other emerging sectors.

OPPORTUNITIES

- ☼ Federal infrastructure package will fuel investments in physical infrastructure, broadband, roads, and bridges.
- Offshore wind industry presents opportunity for fast growth and new jobs.
- Many of top occupations in the sector have low educational requirements, reducing barrier to entry.

CHALLENGES

- x The sector is **overwhelming male** and far **less diverse** than the state's workforce as a whole.
- x The sector's workforce is aging quickly and will require an injection of young talent to meet future demand.
- x Getting young workers excited about careers in the industry continues to be a challenge.

SKILLS/CREDENTIALS

- ± Increasing importance of **essential skills** (flexibility, problem solving, critical thinking, adaptability, etc.).
- ± Mathematics, computer proficiency, analytics, increasingly required; OSHA training requirements.
- Ongoing training in diversity, equity, and inclusion to address a diversifying workforce and state population.

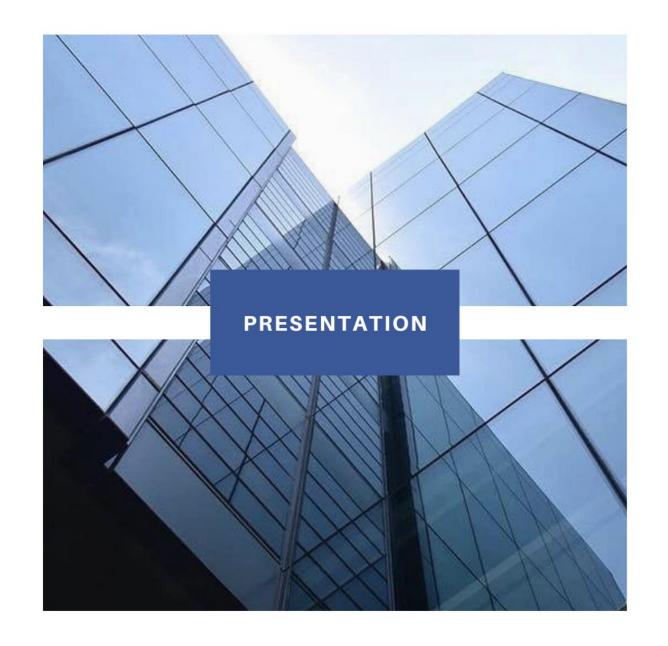
What Does a Comprehensive Cross-Education Sector Pathway Look Like



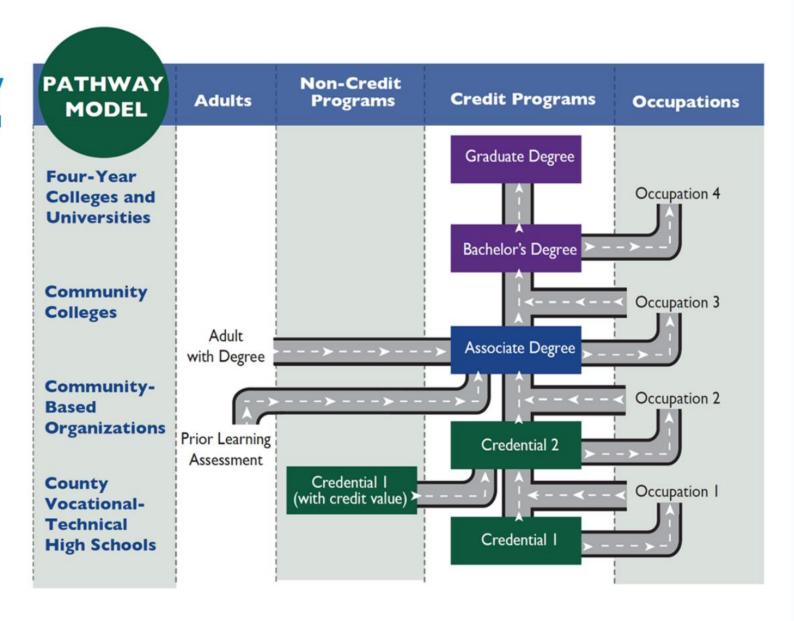
CATHERINE FRUGÉ STARGHILL, ESQ.

Senior Director, Strategy and Partnerships





Key Componentsof a Career Pathway





COMPREHENSIVE CROSS EDUCATION SECTOR PATHWAY MODEL

(One Associate Degree Model)

HIGH SCHOOLS

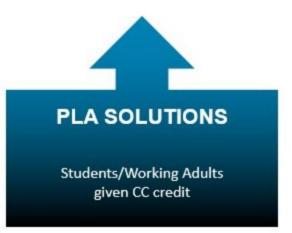
- Dual Enrollment Agreements
- Industry-Valued Credentials for CC Credit
- Experiential Learning Opportunities

COMMUNITY

- One Associate Degree
- Industry-Valued Credentials for CC Credit
- 1+1 Transfer Agreements
- Experiential Learning Opportunities

4-YEAR COLLEGES OR UNIVERSITIES

- Maximum transferability of CC credits
- 2+2 and 3+1 Transfer Agreements
- Experiential Learning Opportunities











Closing Remarks

Thank you for Partnering with NJ's Community Colleges and NJBIA to Align Education to Build an Innovative Workforce.



STEPHANIE STAUB

Director of Infrastructure & Energy Sectors Strategy & Workforce Partnerships



CATHERINE FRUGÉ STARGHILL, ESQ.

Senior Director, Strategy and Partnerships





Contact NJ Pathways

Get Involved

Name*

STAY UP TO DATE AT NJPATHWAYS.ORG

Get involved in NJ Pathways to Career Oppertunities at NJPathways.org. Become a partner to receive updates, meeting invitations, and other materials.

Organization*

GET
INVOLVED



Email*

Stay Connected

Never miss an update when you follow us on our social media platforms



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MANUFACTURING & SUPPLY CHAIN MANAGEMENT COLLABORATIVE

Wednesday, April 6, 2022 10:00 AM to 11:30 AM



TECHNOLOGY & INNOVATION COLLABORATIVE

Wednesday, April 13, 2022 10:00 AM to 11:30 AM



HEALTH SERVICES COLLABORATIVE

Wednesday, April 20, 2022 10:00 AM to 11:30 AM



INFRASTRUCTURE & ENERGY COLLABORATIVE

Wednesday, April 27, 2022 10:00 AM to 11:30 AM





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