AMERICAN CLEAN POWER

CLEAN ENERGY CAREER PATHWAYS CATALOG

Offshore Wind Energy

CAREER MAP

CAREER LIST

Clean Energy Career Pathways Catalog

Over 300 job descriptions for technical and specialty jobs in clean energy

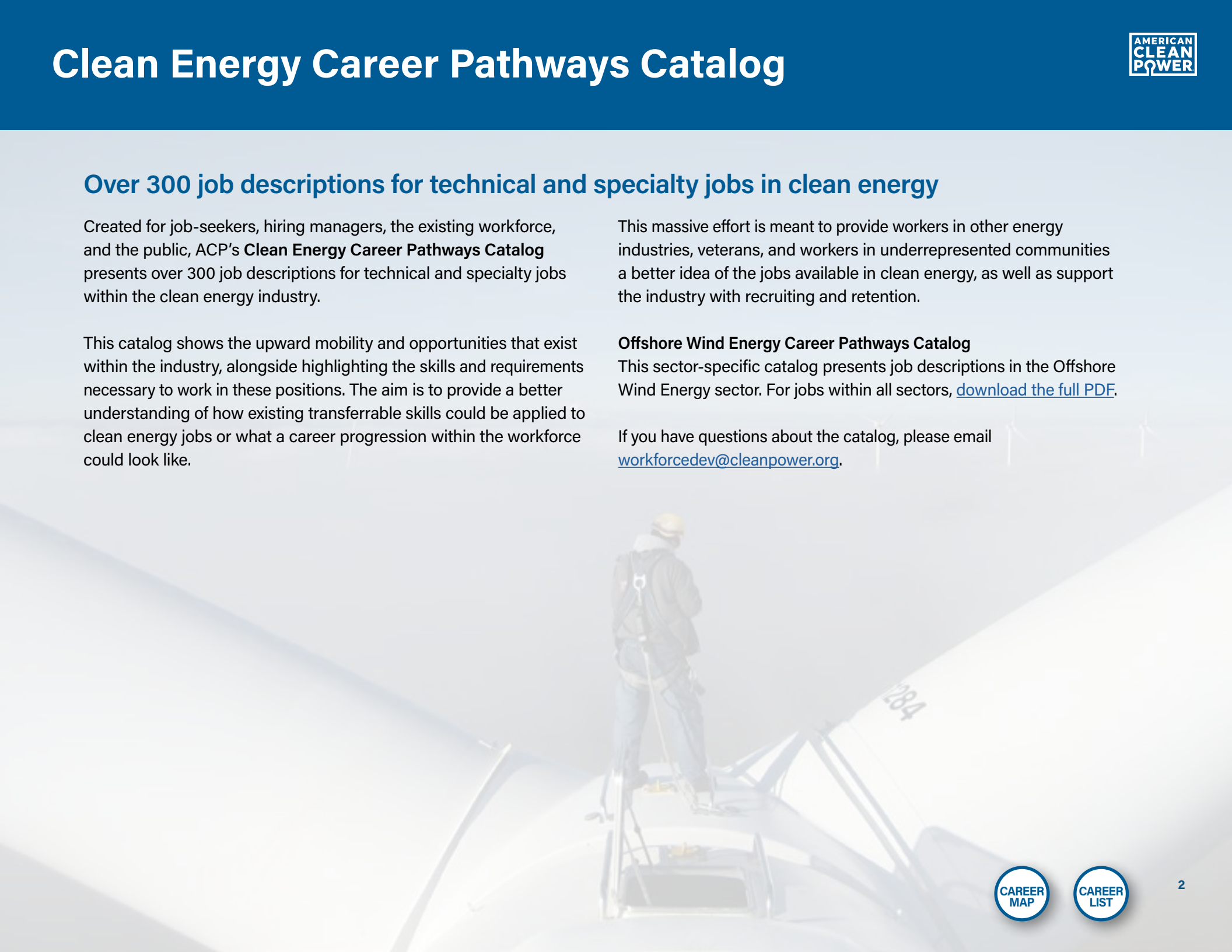
Created for job-seekers, hiring managers, the existing workforce, and the public, ACP's **Clean Energy Career Pathways Catalog** presents over 300 job descriptions for technical and specialty jobs within the clean energy industry.

This catalog shows the upward mobility and opportunities that exist within the industry, alongside highlighting the skills and requirements necessary to work in these positions. The aim is to provide a better understanding of how existing transferrable skills could be applied to clean energy jobs or what a career progression within the workforce could look like.

This massive effort is meant to provide workers in other energy industries, veterans, and workers in underrepresented communities a better idea of the jobs available in clean energy, as well as support the industry with recruiting and retention.

Offshore Wind Energy Career Pathways Catalog
This sector-specific catalog presents job descriptions in the Offshore Wind Energy sector. For jobs within all sectors, download the full PDF.

If you have questions about the catalog, please email workforcedev@cleanpower.org.



Career & Occupation Hierarchy

Clean Energy Occupations can be looked at across Clean Energy Sectors, Industry Segments, Industry Sub Segments, and Occupational Groups & Job Families. The catalog is organized by the hierarchy and groups represented here:

Clean Energy Sectors — LEVEL 1

- Solar
- Wind Onshore
- Offshore Wind
- Storage
- Transmission

Industry Segments — LEVEL 2

- Project Development (System Design)
- Operations & Maintenance
- Manufacturing
- Construction / Installation
- Research & Training

Industry Sub Segments — LEVEL 3

- Safety
- Engineering
- Management
- Maintenance & Repair
- Installation
- Services General
- Material Handling, Supply & Processing
- Fabricating/Forging/ Manufacturing
- Construction Management
- Foundation Contractor
- General Contractor
- Heavy Equipment Supplier/ Operator
- Transportation
- Logistics
- Operations
- Development & Planning
- Business Development / Sales
- Purchasing
- Education / Training

Occupational Groups/Job Families — LEVEL 4

[Groups may also include supervisor & manager roles]

- Inspectors & QC
- Technicians
- Project Managers & Construction Managers
- Electricians, Wirers & Installers, including Repairers
- Equipment Operators
- General Laborers & Groundmen
- Maintenance
- Engineers
- Meteorology Specialists
- Remote Control Operators / Dispatchers
- Safety and Incident Investigations
- Assembly, Fabricating & Manufacturing Laborers
- Surveyors
- Logisticians & Warehouse
- Analysts / Specialists
- Buyers / Procurement
- Tradeworkers – Ironworker, Welder, CNC operator, Machinist
- Site Managers
- Truck Drivers
- Business Developers
- Planners
- Asset Managers
- Operations / Facility Managers
- Trainers
- Schedulers

CAREER MAP
CAREER LIST

Explanation of Career Maps

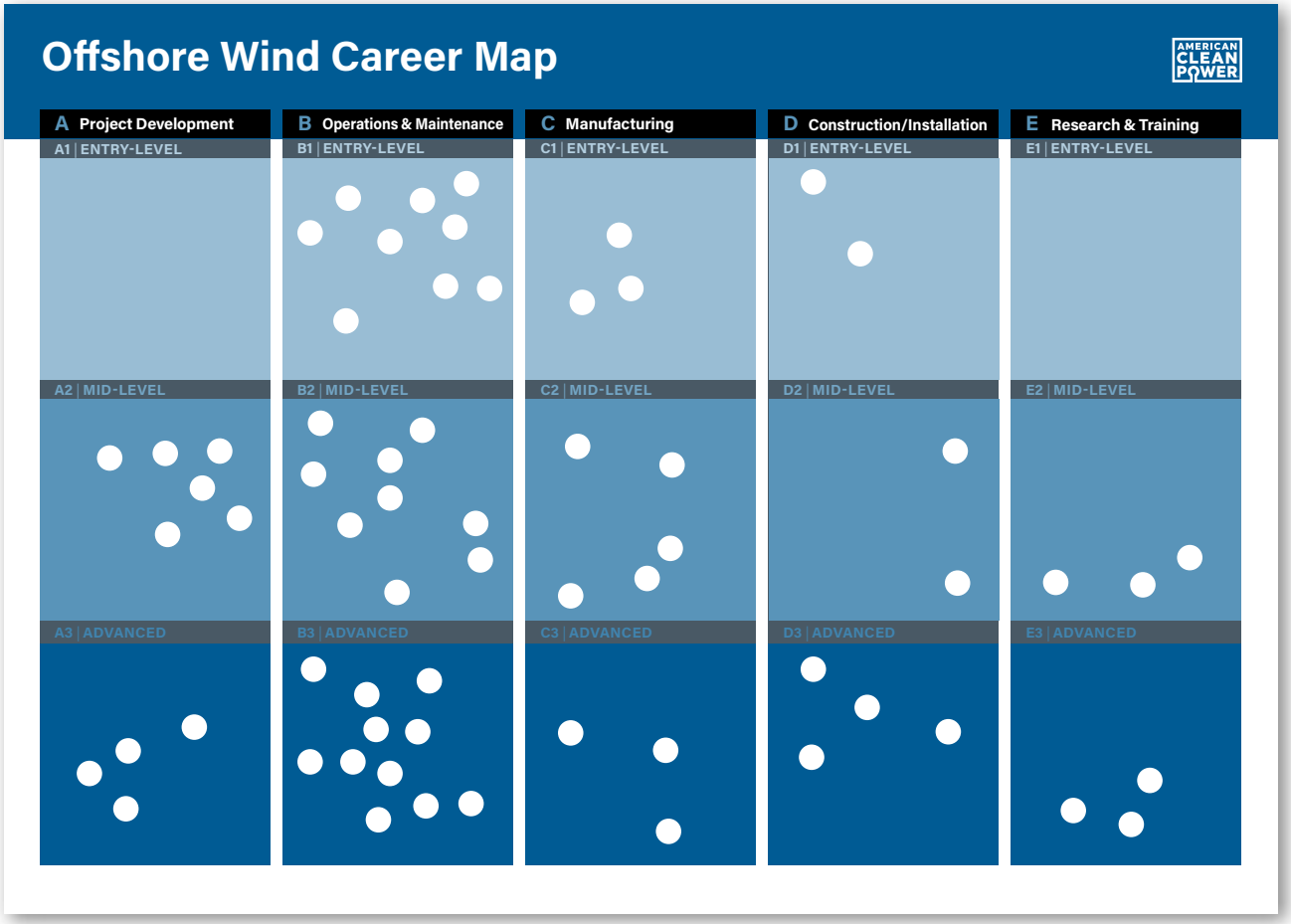
Each catalog includes an interactive Career Map that illustrates potential pathways for career growth within the Sector and within five specific Industry Segments.

On the Career Map, each occupation is represented by a clickable dot. Each sector's Career Map contains three Career Levels:

- Entry Level
- Mid-Level
- Advanced

Dots placed in vertical lines or nearby spaces up through the career levels represent the career progression in a particular field or Industry segment.

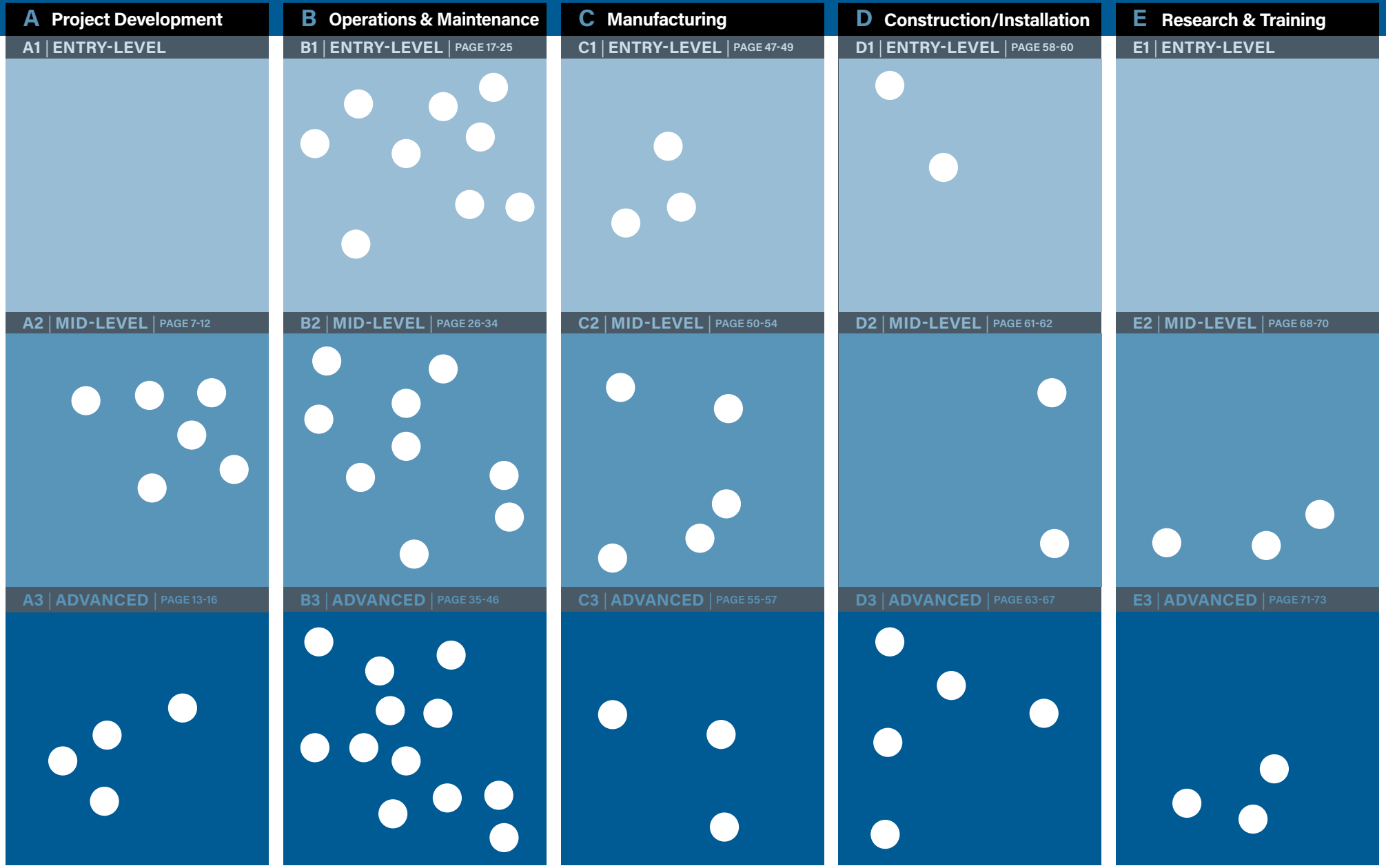
Note: The vertical paths are not the only potential career options from any given occupation, since those who acquire further education and experience may also make cross-industry segment and sector moves. The more typical career moves from each occupation are outlined on each Occupation Description page.



Click on a career level in an industry segment and you will be taken to that section.

Offshore Wind Career Map

A Project Development	B Operations & Maintenance	C Manufacturing	D Construction/Installation	E Research & Training
A1 | ENTRY-LEVEL	B1 | ENTRY-LEVEL | PAGE 17-25	C1 | ENTRY-LEVEL | PAGE 47-49	D1 | ENTRY-LEVEL | PAGE 58-60	E1 | ENTRY-LEVEL
A2 | MID-LEVEL | PAGE 7-12	B2 | MID-LEVEL | PAGE 26-34	C2 | MID-LEVEL | PAGE 50-54	D2 | MID-LEVEL | PAGE 61-62	E2 | MID-LEVEL | PAGE 68-70
A3 | ADVANCED | PAGE 13-16	B3 | ADVANCED | PAGE 35-46	C3 | ADVANCED | PAGE 55-57	D3 | ADVANCED | PAGE 63-67	E3 | ADVANCED | PAGE 71-73



Click on a career level in an industry segment and you will be taken to that section.

CAREER LIST

Offshore Wind Career List

A Project Development

A1 | ENTRY-LEVEL

- N/A

A2 | MID-LEVEL | PAGE 7-12

- Business Development Manager
- Electrical Systems Engineer, Power Systems Engineer, Electrical Interconnection Engineer, Electrical Design Engineer
- Mechanical Engineer, Design Engineer, Product Engineer, Equipment Engineer
- Permitting Lead or Manager depending on years of experience
- Project Developer; Pre-Construction Manager
- Strategic Procurement Manager

A3 | ADVANCED | PAGE 13-16

- Civil Engineer, Structural Engineer
- Geotechnical Engineer
- Permitting Director
- Planner—Renewable Energy

B Operations & Maintenance

B1 | ENTRY-LEVEL | PAGE 17-25

- Blade Repair Services Technician, Wind Blade Repair Technician
- Composite Blade Technician I
- Composite Blade Technician II
- Control Center Operator, Controller, Remote Access Operator
- Meteorologist—Entry
- Operations Specialist I
- Safety Manager I
- Wind Instrumentation and Electrical Technician (Offshore)
- Wind Technician—Offshore

B2 | MID-LEVEL | PAGE 26-34

- Assistant Facility Manager
- Composite Blade Technician III, Blade Composite Technician
- Engineer & Site Inspector
- Environmental Engineer, Regulatory Compliance Manager, Environmental Scientist
- Maintenance Supervisor, Technician Supervisor
- Meteorologist—Intermediate
- Operations Specialist II
- Reliability Engineer
- Safety Manager II

B3 | ADVANCED | PAGE 35-46

- Asset Manager
- Composite Blade Manager
- Director, Meteorology
- Director, Operations & Maintenance, Director O&M
- Director, Quality & Operations Support
- Engineering Manager
- Maintenance Manager
- Meteorologist—Senior
- Operations Manager, O&M Manager, Site Manager, Facility Manager—Offshore Wind
- Reliability Engineering Manager
- Safety Manager III
- Senior Financial Analyst & Planner

C Manufacturing

C1 | ENTRY-LEVEL | PAGE 47-49

- Advanced Manufacturing Technician, Production Technician, Manufacturing Maintenance Technician
- Assembler / Fabricator
- Warehouse Assistant, Warehouse Support

C2 | MID-LEVEL | PAGE 50-54

- Blade Testing Engineer—Entry
- Blade Testing Engineer—Intermediate
- Industrial Engineer, Manufacturing Engineer
- Inspector & Quality Control
- Journeyman Electrician

C3 | ADVANCED | PAGE 55-57

- Blade Testing Engineer—Advanced
- Blade Testing Engineer—Senior
- Industrial Engineering Manager, Manufacturing Engineering Manager

D Construction/Installation

D1 | ENTRY-LEVEL | PAGE 58-60

- Buyer, Procurement Specialist, Procurement Associate
- Commissioning Technician
- Laborer, General Laborer

D2 | MID-LEVEL | PAGE 61-62

- Construction Manager
- Construction Manager II

D3 | ADVANCED | PAGE 63-67

- Commissioning Manager
- Construction Manager III
- Project Director
- Project Manager, Technical Project Manager
- Senior Project Manager

E Research & Training

E1 | ENTRY-LEVEL

- N/A

E2 | MID-LEVEL | PAGE 68-70

- Analyst / Researcher - Offshore Wind
- Research Engineer, Research and Development Engineer
- Technical Trainer, Technical Instructor

E3 | ADVANCED | PAGE 71-73

- Marine Scientist, Environmental Scientist
- Materials Scientist, Research & Development Engineer
- Training & Development Manager

Click on a career level in an industry segment and you will be taken to that section.

CAREER MAP

Business Development Manager

DESCRIPTION

Responsible for execution of growth strategy through developing new opportunities for offshore wind. Represent offshore wind to new potential partners & clients. Develop and maintain relationships to ensure continued business and growth and to mitigate risks to the business. Develop budget, contribute to strategy development and provide commercial expertise. Develop understanding of client businesses and their goals to execute marketing strategies. Track leads, results and contacts.

KNOWLEDGE/SKILLS

Strong communication, presentation & negotiation skills, computer skills. Multi-tasking. Reading, analyzing and interpreting common scientific and technical journals, financial reports and legal documents. Calculating figures and amounts.

REQUIREMENTS

Education/Training

Bachelor's degree in marketing, construction management or business field required.

Experience

3 years in direct marketing/sales of construction-related services preferred.

POSITION REPORTS TO

Business Development Director / Head

CAREER PATH MOVES FROM THIS ROLE

Business Development Director / Head

Electrical Systems Engineer

Power Systems Engineer, Electrical Interconnection Engineer, Electrical Design Engineer

DESCRIPTION

Support the technical efforts associated with designing electrical power generation, delivery, and control and protection systems for renewable energy projects along with project-related electrical engineering, while providing electrical engineering expertise to development, construction, and operations. Support internal Project Engineers in the management of electrical design engineering firms and/or EPC contractors. Prepare and study specs of electrical systems and technical drawings. Develop construction, installation and manufacturing specifications. Develop and direct/implement commercial and utility scale wind power projects. Assess effectiveness and safety of wind power systems. Work with engineers and manufacturing regarding testing and evaluating equipment.

KNOWLEDGE/SKILLS

Transmission, generation and distribution of electrical power, monitoring of operations, design, qualify control, critical thinking and troubleshooting, engineering and math. Electrical design processes and related computer software: ETAP or similar; use of PSSE/PSLF.

REQUIREMENTS

Education/Training
Minimum Bachelor of Science degree in electrical engineering is required.

Experience
Three years progressively responsible experience in the renewable energy industry with electrical, protection, and/or controls design and engineering.

Credentialing Required/Optional
Familiarity with IEEE electrical standards and NESC.

POSITION REPORTS TO

Power Systems or Energy Systems Manager or Director

CAREER PATH MOVES FROM THIS ROLE

Wind Energy Systems Designer

Mechanical Engineer

Design Engineer, Product Engineer, Equipment Engineer

DESCRIPTION

Design, develop, analyze and test Offshore Wind equipment and products. Design mechanical and electromechanical systems and components for Offshore Wind projects. Develop technical engineering drawings and models. Verify and check project layouts and drawings. Outline materials needed based on engineering and quality standards. Create new and improve upon existing Offshore Wind designs to improve efficiency and reliability, and to reduce costs.

KNOWLEDGE/SKILLS

Project management, design for manufacturability (DFM) principles, mechanical and electromechanical assemblies & mechanisms, Offshore Wind energy, 3D cad modeling and drawing creation using SolidWorks software, product design, quality control.

REQUIREMENTS

Education/Training

BS in Engineering or higher degree from an accredited university.

Experience

Experience with design of mechanical or electromechanical Offshore Wind assemblies and mechanisms. Ideally 3D cad modeling and variety of software.

Credentialing Required/Optional

May require engineering license,
PE Professional engineer

POSITION REPORTS TO

Engineering Manager or Director

CAREER PATH MOVES FROM THIS ROLE

Engineering Manager or Director,
Materials Scientist

Permitting Lead or Manager

Manager (depending on years of experience)

DESCRIPTION

Navigate statutory and regulatory environment for offshore and onshore aspects of offshore wind projects. Lead permitting efforts and contribute to planning on offshore wind (OSW) projects. Mentor and develop team and work with internal teams (engineering, development, compliance, strategy). Work with leadership to shape offshore wind business strategy. Use project management experience to lead projects and obtaining permits. Cultivate client and industry relationships, including with federal agencies (BOEM, NOAA/NMFS, USACE, USFWS, USACOE, USCG) involved in OSW projects. Attend open houses, stakeholder engagement sessions, agency and municipality meetings, etc. Also, work with various state groups regarding permitting for state waters and onshore impacts. Work to ensure the permitting process for transmission line and grid updates to support the OSW industry is accomplished. May be involved with development of Construction and Operations Plans (COP) and/or with Site Assessment Plans (SAP).

KNOWLEDGE/SKILLS

Bureau of Ocean Energy Management (BOEM) related to permitting of OSW, OSW project development life-cycle, US offshore wind industry, marketing & selling services. Ideally have relationships with OSW developers, suppliers or utilities. Experience with the National Environmental Policy Act. Experience or knowledge of agencies beyond BOEM such as (USCG, USAOE, USFWS, NOAA Fisheries, EPA, DoD, FAA. Bureau of Safety & Environmental Enforcement. Federal statutes applicable to OSW projects in the US, construction and operations plans (COP), site assessment plans (SAP), project management, writing permit applications.

REQUIREMENTS

Education/Training

Bachelor's degree in related field (land use planning, environmental planning, environmental science/engineering, or other environmental law/policy field). Master's degree preferred in related field.

Experience

2-3 years' experience (for Lead role); Minimum 4+ years' experience (for Manager role permitting and planning OSW projects. Ideally experience working with Bureau of Ocean Energy Management (BOEM) for the permitting of OSW. Experience in environmental consulting with direct involvement in the offshore wind industry or electrical marine lines, inter-island, interconnection, and port development.

POSITION REPORTS TO

Lead reports to Wind Permitting Manager; Manager reports to Permitting Director

CAREER PATH MOVES FROM THIS ROLE

Wind Permitting Manager

Project Developer

Pre-Construction Manager

DESCRIPTION

Manage and oversee all the Pre-Construction aspects of utility-scale wind offshore renewable energy. Complete cost analysis and budgetary estimates for the engineering, procurement and construction of the renewable generation facilities. Manage the preliminary engineering for the projects. Responsible for managing and developing Request for Proposal's (RFP's) that will be issued to potential Contractors for the competitive bidding process.

KNOWLEDGE/SKILLS

Basic engineering concepts associated with renewable energy facilities (geotechnical, civil, structural, electrical). Engineering and cost estimating of medium voltage and high voltage, including, but not limited to collections systems, substations and transmission lines. MS Office software, and Microsoft Project or Primavera.

REQUIREMENTS

Education/Training

Minimum Bachelor of Science (BS) degree with preference in engineering and/or construction management.

Experience

2-5 years progressive responsible experience in the renewable power industry with significant wind and/or solar energy experience. Direct experience with project and engineering management for wind and/or solar is preferred. Field and estimating experience are a plus.

POSITION REPORTS TO

Director of Wind Offshore Projects,
Project Manager

CAREER PATH MOVES FROM THIS ROLE

Construction Manager, Director of Engineering, Director of Wind Offshore Projects

Strategic Procurement Manager

DESCRIPTION

Lead and support the development of strategy for and the procurement of the key components that comprise projects and products, including energy Offshore Wind solutions, tracking systems and other key technologies with a focus on energy Offshore Wind. Perform technology evaluation that considers potential customers, financial structures, and strategic advantages; build specifications with the engineering teams; collaborate on project development and implementation. Maintain supplier relationships; conduct assessments of suppliers, maintain pricing roadmaps. Procure key components and create contracts with suppliers. Lead competitive RFP processes and manage contracting process. Interface with legal, development, engineering and construction on scope, specifications, testing, etc. Support projects and ongoing supplier management.

KNOWLEDGE/SKILLS

Knowledge of renewable energy industry, negotiations, contracting, quantitative and qualitative analysis.

REQUIREMENTS

Education/Training

Bachelor's degree. MBA or MS degree preferred.

Experience

At least 3 years experience in the energy field; experience in negotiations and analysis.

POSITION REPORTS TO

Director, Offshore Wind Energy

CAREER PATH MOVES FROM THIS ROLE

Director of Offshore Wind Operations or Engineering or Construction or Project Manager on other green energy systems (i.e. Wind Onshore)

Civil Engineer

Structural Engineer

DESCRIPTION

Work with Offshore Wind project contractors by offering civil engineering expertise and meeting with leadership regarding project updates and reporting. Ensure project deliverables are in line with scope of work, quality, budget and schedule. Manage aspects of the onshore civil, structural (and architectural) fields for the Offshore Wind project. Provide input on planning and execution of civil engineering and construction scope. Ensure that all civil engineering complies with regulations, specifications, and best practices. Work with design team to define technical solutions within scope and provide civil and structural input and research-driven solutions. Calculate risks and document through risk management systems. Work with operations team and contractors regarding engineered solutions and structural capabilities. During construction, support field engineers and provide input and responsible decision making regarding civil discipline. Provide input and participate in testing and verification processes.

KNOWLEDGE/SKILLS

Regulations, codes and permitting related to offshore wind projects. Civil engineering on offshore wind projects. Marine construction. Structural capacities. Risk systems.

REQUIREMENTS

Education/Training

Master's degree in civil or structural engineering preferred. Minimum bachelor's degree in civil or structural engineering.

Experience

Minimum 10 years' experience with engineering and project execution. Civil/structural engineering experience.

Credentialing Required/Optional

PE (Professional Engineer)—registration.
GWO (Global Wind Organisation) certified.
WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Wind Projects Civil Lead or Director

CAREER PATH MOVES FROM THIS ROLE

Wind Projects Civil Lead or Director, Project Manager, other engineering discipline

Geotechnical Engineer

DESCRIPTION

Collaborate cross-organizationally in the design and analysis of foundations for offshore wind turbines, offshore electrical substations and port facilities in support of all phases of project lifecycle, including planning, design, construction, operation and decommissioning by providing geotechnical and foundation expertise. Perform 3-D soil-structure interaction analysis, geotechnical analysis and dynamic analysis using advanced software. Complete structural design and specifications for offshore wind foundations. Develop design methodologies. Prepare design documents and handle quality control validation of calculations, design drawings and specifications. Visit site and/or client offices, and meet virtually too, as required by the project.

KNOWLEDGE/SKILLS

Soil / structure interaction, preparing and checking engineering designs and calculations for deep foundations and pilings for bridges, buildings, marine structures, etc., production of design documents for clients, Plaxis 3D or similar geotechnical software, interfacing with variety of technical disciplines (structural, electrical, mechanical, CADD, etc.), industry software and programming languages, offshore codes (API, DNVGL, etc.).

REQUIREMENTS

Education/Training

Master's degree in geotechnical engineering, focusing on the design of foundations.

Experience

Minimum 2 years' experience as geotechnical engineer. Experience with soil/structure interaction, preparing and checking engineering and design calculations, for marine structures, bridges, etc. Ideally/preferred to have experience with offshore wind foundation design and analysis.

Credentialing Required/Optional

PE (Professional Engineer) license prior to or within 1 year of employment.

POSITION REPORTS TO

Geoscience & Engineering Manager

CAREER PATH MOVES FROM THIS ROLE

Design Lead, Geoscience & Engineering Manager

Permitting Director

DESCRIPTION

Develop and execute permitting strategy to secure all necessary federal, state, and local permits to construct and operate an offshore wind farm and associated transmission system. As a member of the project management team, work with leadership to shape offshore wind business strategy and support projects from development through construction. Use project management experience to lead projects and obtaining permits. Cultivate client and industry relationships, including with federal agencies (BOEM, NOAA/NMFS, USACE, USFWS, USACOE, USCG) involved in OSW projects. Mentor and develop team and work with internal teams (engineering, development, compliance, strategy). Participate in local, regional and state engagement and planning regarding offshore and onshore impact.

KNOWLEDGE/SKILLS

Bureau of Ocean Energy Management (BOEM) related to permitting of OSW, OSW project development life-cycle, US offshore wind industry, marketing & selling services. Ideally have relationships with OSW developers, suppliers or utilities. Experience with the National Environmental Policy Act. Experience or knowledge of agencies beyond BOEM such as (USCG, USAOE, USFWS, NOAA Fisheries, EPA, DoD, FAA. Bureau of Safety & Environmental Enforcement. Federal statutes applicable to OSW projects in the US, construction and operations plans (COP), site assessment plans (SAP), project management, writing permit applications.

REQUIREMENTS

Education/Training

Bachelor's degree in related field (land use planning, environmental planning, environmental science/engineering, or other environmental law/policy field). Master's degree preferred in related field.

Experience

Minimum 7-10 years' experience. Experience working with or knowledge of Bureau of Ocean Energy Management (BOEM) for the permitting of OSW. Experience in environmental consulting with direct involvement in the offshore wind industry or electrical marine lines, inter-island, interconnection, and port development.

POSITION REPORTS TO

Permitting Group

CAREER PATH MOVES FROM THIS ROLE

Permitting Group Head, Offshore Wind Development Head, Vice President Offshore Wind

Planner—Renewable Energy

DESCRIPTION

Responsible for assessment and permitting of renewable energy facilities and associated storage and transmission infrastructure. Prepare proposals and provide direction for the development of environmental impact analysis documents, related technical studies, mitigation monitoring, exemptions/exclusions, and discretionary permit applications. Manage projects. Provide leadership for staff. Review field surveys and reports, cultural resources and geotechnical surveys and reports, air quality reports, wetland delineations (where applicable). Oversee preparation of environmental permit applications with various federal, state, and local agencies for a variety of project types/sizes.

KNOWLEDGE/SKILLS

NEPA practices and regulations. Environmental planning. Analysis of data/information, synthesis, and conclusion development. Writing various reports and documents. Constraint analysis. Developing mitigation measures. Reading and interpreting complex documents. Communication with varied groups, including leading meetings and presentations. Proficiency with MS Office suite (e.g., Microsoft Word, Microsoft Teams, Microsoft Project, Adobe Acrobat, Excel). Federal, state, and county permitting processes and applications. Federal and state habitat conservation planning programs.

REQUIREMENTS

Education/Training

Bachelor's degree in environmental science or related field required. Masters degree preferred. Training / education in a technical field such as air quality, cultural resources, hazardous materials, biological resources, or environmental law a plus.

Experience

Minimum 7 years of applicable professional experience. Minimum 5 years of demonstrated project lead experience. Minimum years in renewable or traditional energy. Experience with environmental permitting for large, utility-scale solar, wind energy or storage or transmission projects.

Credentialing Required/Optional

Industry-specific training (specialized field surveys methods, NEPA courses), certifications (e.g., PWS, CWB®, AICP, HAZWOPER), or species-specific handling permits a plus.

POSITION REPORTS TO

Director Environmental Assessment, Permitting & Compliance

CAREER PATH MOVES FROM THIS ROLE

Director Environmental Assessment, Permitting & Compliance

Blade Repair Services Technician

Wind Blade Repair Technician

DESCRIPTION

In some companies, this role is part of the Wind Technician role. Maintain and repair composite blades and various turbine models. Report to, assist and support supervisors in coordination and execution of maintenance & repair activity of wind turbine blades, nacelles, composite components. Climb wind towers and access wind turbines to perform composites repair & maintenance tasks. Assist in transportation, setup and the operation of up-tower blade access mechanism. Support a team in performing rope, platform, and ground access composite repairs on multiple turbine manufacturers. Assist in mobilization of all repair equipment to site. Assist in major component replacement, which will primarily focus on blades. Assure proper storage, maintenance and handling of all blade repair service equipment.

KNOWLEDGE/SKILLS

Equipment and repair of turbine blades of multiple manufactures (i.e. Siemens, GE, Vestas, Mitsubishi). Crane and rigging work. Composite materials and tools used during repairs. Techniques, skills and tools needed to repair the different type of damages in wind turbine blades. Repairs on the first layer of glass, core, & inner laminate.

REQUIREMENTS

Education/Training

High School diploma or GED & experience.

Experience

Minimum 1 year experience in operation & maintenance of electromechanical apparatus, composite systems, or aerospace / marine composites manufacturing & engineering. Demonstrated experience in blade damage assessment and repair required.

Credentialing Required/Optional

GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered. American Composites Manufacturers Association (ACMA): Certified Composites Technician (CCT), CCT—Advanced Composites (CCT—AC), and CCT—Wind Blade Repair; Commercial Driver's License (CDL) if transporting wind blades/components.

POSITION REPORTS TO

Blade Repair Supervisor, Wind Technician Supervisor

CAREER PATH MOVES FROM THIS ROLE

Wind Technician advanced role, Lead, Supervisor

Composite Blade Technician I

DESCRIPTION

Perform internal and external inspections, defect analysis and repair of fiberglass and composite blades, spinners, and nacelles from all categories. Provide maintenance support and perform large component replacements of wind turbine generators. Photograph internal and external blade damage, document findings, and assemble all associated paperwork. Perform coating and minor structural repairs on internal and external blade surfaces, tip repair, leading and trailing edge repair on locations both up tower and down tower. Utilize blade access platforms at heights of 300 ft or more. Help in all areas of site preparation (i.e. coordination of labor and materials) with minimal supervision. Communicate site status to engineering, customers, and management. Provide maintenance support and perform large component replacement of wind turbine generators. Provide wind turbine generator LOTO (Lock Out & Tag Out) support.

KNOWLEDGE/SKILLS

Tower Safety Training (LOTO), Suspended Platform Rigging/De-Rigging, Lamination principles and post-curing. Installation of vortex generators (serrations, panels, vanes, and flow anchors). Wiring schematics, blade access platforms, lightning protection system inspections, technology of wind blade construction & repair, mix of ratios for blade repair chemicals, blade assembly terminology, vacuum bagging principles. Documenting work performed, using computer based procedures.

REQUIREMENTS

Education/Training
High School Diploma or GED.

Experience
Minimum 1 year composite repair experience (OR Graduate of a Wind Tech and/or Composite program).

Credentialing Required/Optional
GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered. American Composites Manufacturers Association (ACMA) Certified Composites Technician (CCT), CCT—Advanced Composites (CCT—AC), CCT—Wind Blade Repair

POSITION REPORTS TO

Composite Blade Tech III, Composite Blade Manager

CAREER PATH MOVES FROM THIS ROLE

Composite Blade Technician II, Composite Blade Technician III

Composite Blade Technician II

DESCRIPTION

Perform internal and external inspections, defect analysis and repair of fiberglass and composite blades, spinners, and nacelles from all categories. Provide maintenance support and perform large component replacements of wind turbine generators. Photograph internal and external blade damage, document findings, and assemble all associated paperwork. Perform coating and minor structural repairs on internal and external blade surfaces, tip repair, leading and trailing edge repair on locations both up tower and down tower. Utilize blade access platforms at heights of 300ft or more. Help in all areas of site preparation (i.e. coordination of labor and materials) with minimal supervision. Communicate site status to engineering, customers, and management. Provide maintenance support and perform large component replacement of wind turbine generators. Provide wind turbine generator LOTO (Lock Out & Tag Out) support.

KNOWLEDGE/SKILLS

Tower Safety Training (LOTO), Suspended Platform Rigging/De-Rigging, Lamination principles and post-curing. Installation of vortex generators (serrations, panels, vanes, and flow anchors). Wiring schematics, blade access platforms, lightning protection system inspections, technology of wind blade construction & repair, mix of ratios for blade repair chemicals, blade assembly terminology, vacuum bagging principles. Documenting work performed, using computer based service reporting procedures.

REQUIREMENTS

Education/Training

High School Diploma or GED.

Experience

Minimum of 2-3 years' of composite repair experience or minimum 1-2 years' AND Graduate of a Wind Tech/and or Composite Program.

Credentialing Required/Optional

GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered. American Composites Manufacturers Association (ACMA) Certified Composites Technician (CCT), CCT—Advanced Composites (CCT—AC), CCT—Wind Blade Repair

POSITION REPORTS TO

Composite Blade Tech III, Composite Blade Manager

CAREER PATH MOVES FROM THIS ROLE

Composite Blade Technician III

Control Center Operator

Power System Operator, Electrical System Operator

DESCRIPTION

Direct, monitor and coordinate the operation of offshore wind farm from an Operations Control Center. Use SCADA and other monitoring and control systems. Ensure that the operations of offshore wind farms comply with all applicable North American Electric Reliability Corporation (NERC) standards and practices. Work independently with guidance only in complex situations.

KNOWLEDGE/SKILLS

Multiple OEM SCADA applications. NERC standards. Microsoft Office. Job aids and procedures. Electrical theory and power flow. Analytical and problem-solving skills. Strong written and verbal communication skills.

REQUIREMENTS

Education/Training

Associate's Degree in Electrical Engineering or an equivalent combination of training and experience.

Experience

0-2 years in power system operations, power production, control center or related energy operations.

Credentialing Required/Optional

PJM or other ISO Certifications, as required, or ability to obtain within 6 months. NERC Certification preferred.

POSITION REPORTS TO

Control Center Manager

CAREER PATH MOVES FROM THIS ROLE

Senior Controller, Control Center Manager

Meteorologist—Entry

DESCRIPTION

Monitor and manage data from meteorological towers to prepare reports and presentations to internal and external stakeholders. Assess site suitability and perform micro-siting for development stage projects to optimize wind farm design. Assist in developing the turbine layout for wind farms based on available meteorological data using advanced mapping software. Analyze performance of operating projects, including evaluation of turbine performance in order to minimize energy losses. Provide analytical support and model capabilities to both finance and development from project conception through project operations. Supervised position.

KNOWLEDGE/SKILLS

Meteorology, atmospheric science, wind energy forecasting, wind farm design, analyses, modeling.

REQUIREMENTS

Education/Training

Bachelor's and/or Master's degree in Meteorology, Atmospheric Science or a related science.

Experience

One to two years' of related meteorological experience.

POSITION REPORTS TO

Meteorologist—Senior, Director, Meteorology

CAREER PATH MOVES FROM THIS ROLE

Meteorologist—Intermediate

Operations Specialist I

DESCRIPTION

Support day to day Reporting, Performance, and Monitoring (RPM) (Operations Center) Center Wind-Offshore activities, acting as the on-shift Operations Specialist for assets in the portfolio. Involved in monitoring of plant and system processes. Operate electrical and SCADA systems. Monitor critical elements in a complex and regulated system. Implement real-time actions to ensure the stable and reliable operation. Comply with applicable NERC Reliability Standards and regional rules and tariffs. Monitor and analyze available market information to identify dispatching and trading opportunities. Analyze and evaluate energy transactions.

KNOWLEDGE/SKILLS

Wind technician knowledge. Plant and system processes, Operation of electrical and SCADA systems, Functional systems interactions.

REQUIREMENTS

Education/Training

Bachelor's degree or formal operations apprenticeship training or equivalent preferred.

Experience

Two years' experience in Operations or in a Wind Technician Role is preferred. Competent technical knowledge of plant and system processes, and experience in operating electrical and SCADA systems.

Credentialing Required/Optional

Must obtain NERC RC certification within 12-months. GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Operations Manager or RPM Manager

CAREER PATH MOVES FROM THIS ROLE

Operations Specialist II

Safety Manager I

DESCRIPTION

Participate in planning, organizing and implementing safety programs for construction projects while ensuring compliance with federal, state and corporate environmental, health and safety regulations. Develop project specific HSE programs and procedures through interface and teamwork with Project / Operations management/supervisory personnel. Maintain Accountability Programs on all projects for safety-related issues and work with supervision to ensure uniform application of safety related discipline. Serve as a mentor to other HSE professionals. May be the lead safety manager on a small project. Coordinate and present safety training to support the company and client requirements. Participate in EHS project risk assessments. Assist with conducting accident, near miss, and damage investigations with Root Cause Analysis. With oversight, develop and monitor EHS performance, progress, preventive and corrective action plans.

KNOWLEDGE/SKILLS

MSHA/OSHA regulations and hazard recognition, record keeping and injury management. Environmental, Health & Safety policies and procedures. Managing safety of work sites, mitigating identified safety hazards. Managing people, including contractors. Reviewing technical and EHS training reports. Developing and implementing safety training, and safety alerts. Auditing work sites for EHS program effectiveness. Supporting injured workers. Case management. Developing, implementing and maintaining an effective site-specific safety/EHS plan.

REQUIREMENTS

Education/Training
High school diploma or GED.

Experience
Minimum of 1 year of construction safety management experience. Demonstrated ability to provide a high level of safety leadership to both management and technicians.

Credentialing Required/Optional
Certified Hygiene Safety Technician (CHST) preferred. CPR/First Aid certification.

POSITION REPORTS TO

EHS Senior Leadership or a Group/ Senior Safety Manager

CAREER PATH MOVES FROM THIS ROLE

Senior Safety Manager, Safety Manager II

Wind Instrumentation And Electrical Technician (Offshore)

DESCRIPTION

Perform maintenance, calibrate, install and repair instrumentation including controls and electrical equipment at an offshore wind energy facility. Maintain drawings, logs and other project records. Carry out approved switching orders and perform high voltage switching. Troubleshoot and repair automated control systems, electrical equipment, instrumentation and SCADA systems. Provide guidance to less experienced technicians. Work with voltages up to 230kV and climb towers. Assist with high voltage system maintenance and repair and in inspecting renewable energy equipment. Interact with customers as directed by manager and ensure customer safety. Assist in all areas of site operations. Follow all health and safety and operating procedures.

KNOWLEDGE/SKILLS

Troubleshooting and maintaining equipment. Maintenance, calibration, installation and repair of instrumentation and controls for wind energy equipment. SCADA systems. Customer service. Ability to climb offshore wind towers and work with high voltages.

REQUIREMENTS

Education/Training

High school diploma or GED with completion of an apprentice program or equivalent experience. An Associate's degree from a technical school is common.

Experience

Completion of an apprentice program or equivalent experience. Minimum five years of experience troubleshooting and maintaining equipment.

Credentialing Required/Optional

ISA CCST certification to Level II is common. GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Wind Instrumentation and Electrical Technician Supervisor, Wind Site Leader

CAREER PATH MOVES FROM THIS ROLE

Wind Instrumentation and Electrical Technician Lead or Supervisor, Engineer (with degree), Project Manager

Wind Technician—Offshore

DESCRIPTION

Ensure safe operation and perform mechanical, electrical and hydraulic maintenance activities for offshore wind turbines and turbine components consistent with policies and procedures established for the offshore wind farm site. Travel via offshore vessel/helicopter to wind farm. Climb from the base to the nacelle on 700+ ft. offshore towers as required to perform maintenance, replacement and inspection. Wear safety harness and safety suit. Inspect wind turbines. Replace major turbine components (e.g. generators & gearboxes). Identify / troubleshoot failures, faults, and problems, interpret fault reports, and implement corrective actions. Conduct acceptance and performance tests on systems and equipment following maintenance and outages. Write (some using computer) routine reports and correspondence. Maintain service logs, and monitor turbine performance. Read blueprints and schematics. Monitor turbine performance and SCADA systems. Collect turbine data for testing or research and analysis. Assist with high-voltage system maintenance and repair. Inspect wind turbines. Lead and train more junior technicians to complete required duties. Ensure all health and safety and operating procedures are followed.

KNOWLEDGE/SKILLS

Electrical machinery, hydraulics, ecology, wind power technology. Safety training including underwater escape from a helicopter.

REQUIREMENTS

Education/Training

Associate's Degree in Electrical Engineering or wind turbine technology or an equivalent combination of training and experience is preferred. Some may accept a certificate program in wind turbine technology.

Experience

Ideally Offshore Wind technician experience. Minimum of 2 years' Wind Onshore experience.

Credentialing Required/Optional

GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Offshore Wind Site Manager, Technician Supervisor

CAREER PATH MOVES FROM THIS ROLE

Technician Supervisor, Mechanical or Electrical Engineer (with education)

Assistant Facility Manager

DESCRIPTION

Support the Facility Manager in all areas of the operating site. Ensure a positive working environment by maintaining morale and employee relations. Lead the use of maintenance documentation, reporting tools and performance systems necessary for reporting and performance improvement. Provide hands-on technical support and supervision for generation equipment and power delivery systems, as well as with other facility civil work, building maintenance, and upkeep.

KNOWLEDGE/SKILLS

Ability to climb turbine tower > 100m. Computer skills, mechanical and electrical troubleshooting and maintenance. Leadership and supervisory skills.

REQUIREMENTS

Education/Training

BA/BS degree in electrical engineering or experience equivalent.

Experience

Supervision and technical experience in the power generation industry or related fields. Experience using computers and with mechanical and electrical troubleshooting and maintenance.

Credentialing Required/Optional

GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Facility Manager, Operations Manager

CAREER PATH MOVES FROM THIS ROLE

Facility Manager, Operations Manager

Composite Blade Technician III

DESCRIPTION

Perform internal and external inspections, defect analysis and repair of fiberglass and composite blades, spinners, and nacelles from all categories. Provide maintenance support and perform large component replacements of wind turbine generators. Photograph internal and external blade damage, document findings, and assemble all associated paperwork. Perform coating and minor structural repairs on internal and external blade surfaces, tip repair, leading and trailing edge repair on locations both up tower and down tower. Utilize blade access platforms at heights of 300ft or more. Help in all areas of site preparation (i.e. coordination of labor and materials) with minimal supervision. Communicate site status to engineering, customers, and management. Provide maintenance support and perform large component replacement of wind turbine generators. Provide wind turbine generator LOTO (Lock Out & Tag Out) support.

KNOWLEDGE/SKILLS

Tower Safety Training (LOTO), Suspended Platform Rigging/De-Rigging, Understand lamination principles and postcuring. Install vortex generators (serrations, panels, vanes, and flow anchors). Ability to read and understand wiring schematics, blade access platforms experience, lightning protection system inspections knowledge, understand technology of wind blade construction & repair, understand mix of ratios for blade repair chemicals, understand blade assembly terminology, understand vacuum bagging principles.

REQUIREMENTS

Education/Training
High School Diploma or GED.

Experience
Minimum of 3-5 years' of composite repair experience or minimum 2-4 years' AND Graduate of a Wind Tech/and or a Composite Program.

Credentialing Required/Optional
GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered. American Composites Manufacturers Association (ACMA) Certified Composites Technician (CCT), CCT—Advanced Composites (CCT—AC), CCT—Wind Blade Repair

POSITION REPORTS TO

Composite Blade Manager

CAREER PATH MOVES FROM THIS ROLE

Composite Blade Manager

Engineer & Site Inspector

DESCRIPTION

Provide engineering expertise and general onsite support related to offshore wind energy. Ensure successful operation strategy. Contribute to design specification, optimization, and costing of wind energy facilities. Assist with any SCADA related collaboration with engineering. Support the evaluation of new equipment components and other direct cost reduction initiatives. Define standard engineering deliverables for project teams. Develop and maintain wind energy equipment standards to be used by engineering team. Perform onsite technical inspections of equipment and facility. Perform trouble shooting, fault analysis, and investigation. Develop, maintain and update work instructions and procedures. Lead and support technical root cause analysis for component and equipment failures. Analyze performance data related to wind operations.

KNOWLEDGE/SKILLS

Engineering and System design expanding technical knowledge, health and safety, creating written instruction. Designing and modeling renewable energy and wind energy.

REQUIREMENTS

Education/Training

Bachelor's degree in technical field (electrical, mechanical, etc.).

Experience

3-5 years' related technical experience with wind energy operations.

Credentialing Required/Optional

PE (Professional Engineer) a plus. GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Director of Operations

CAREER PATH MOVES FROM THIS ROLE

Operations Manager, Construction Manager, Project Manager, Director of Operations

Environmental Engineer

Regulatory Compliance Manager, Environmental Scientist

DESCRIPTION

Using knowledge from various engineering disciplines, develop processes, policies, and practices to prevent or mitigate health, safety, or environmental issues with Offshore Wind operations. Conduct environmental impact studies and recommend management and mitigation strategies. Monitor and address environmental and hazardous concerns such as materials and facility practices. Work with regulatory personnel. Conduct inspections of Offshore Wind sites and facilities, evaluating compliance with environmental, health and safety regulations. Monitor improvements and needed changes to practices.

KNOWLEDGE/SKILLS

Variety of software for analysis and compliance purposes, CAD programming, graphic imaging, system analysis, operations analysis, environmental / health / safety standards and regulations, hazardous materials and chemicals, problem solving.

REQUIREMENTS

Education/Training

Bachelor's degree in engineering. For advancement, a MS or PhD.

Experience

5+ years' experience.

Credentialing Required/Optional

PE (Professional Engineer) may be required

POSITION REPORTS TO

Engineering Manager, Materials Scientist, EHS Director

CAREER PATH MOVES FROM THIS ROLE

Materials Scientist

Maintenance Supervisor

Technician Supervisor

DESCRIPTION

Supervise and perform corrective, preventive, and emergency maintenance and operations for Offshore Wind systems and associated equipment. Support the site / facility manager in operating the site. May provide first line of supervision for technicians. Oversee safe operation and performance of mechanical, electrical and hydraulic maintenance activities. Schedule all maintenance, replacement and inspection. Ensure the troubleshooting of failures, faults, and problems; interpret fault reports, and implement corrective actions. Write reports. Read blueprints and schematics. Assist with high-voltage system maintenance and repair. Develop strategy for improved maintenance diagnostics and operation. Lead and train more junior maintenance personnel. Interact with customers. Ensure all health and safety and operating procedures are followed.

KNOWLEDGE/SKILLS

Diagnosing equipment problems . Electricity, Mechanical, Hydraulics, and Environmental, Health and Safety Fundamentals. Mechanical and electronic testing equipment. Use of power and hydraulic tools. Working around low, medium and high voltage. Reading and interpreting operating and maintenance instructions, and procedure manuals. Writing routine reports and correspondence. Developing strategy. Troubleshooting involving complex variables. Leading and training crews. Supervision of others and site management. Customer service, public relations.

REQUIREMENTS

Education/Training

Technical School Diploma preferred or equivalent combination of education and experience. High school diploma or GED required.

Experience

3 years' experience in the operation of commercial Offshore Wind facilities or 5 years' equivalent experience in instrumentation & controls, MV/HV (medium voltage/high voltage) electrical work. Qualified to perform all routine and emergency operations at an electric generation facility and HV Switchyard. Experience working with plant systems and computerized maintenance management systems.

Credentialing Required/Optional

Journeyman electrician preferred. GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Maintenance Manager, Project Manager

CAREER PATH MOVES FROM THIS ROLE

Maintenance Manager

Meteorologist—Intermediate

DESCRIPTION

Monitor and manage data from meteorological towers to prepare reports and presentations to internal and external stakeholders. Assess site suitability and perform micro-siting for development stage projects to optimize wind farm design. Assist in developing the turbine layout for wind farms based on available meteorological data using advanced mapping software. Analyze performance of operating projects, including evaluation of turbine performance in order to minimize energy losses. Provide analytical support and model capabilities to both finance and development from project conception through project operations. Mentor less-experienced team members.

KNOWLEDGE/SKILLS

Meteorology, atmospheric science, wind energy forecasting, wind farm design, analyses, modeling.

REQUIREMENTS

Education/Training

Bachelor's and/or Master's degree in Meteorology, Atmospheric Science or a related science.

Experience

Three to five years' of related meteorological experience.

POSITION REPORTS TO

Meteorologist—Senior, Director, Meteorology

CAREER PATH MOVES FROM THIS ROLE

Meteorologist—Senior

Operations Specialist II

DESCRIPTION

Support day to day Reporting, Performance, and Monitoring (RPM) (Operations Center) Center Wind-Offshore activities, acting as the on-shift Operations Specialist for assets in the portfolio. Involved in monitoring of plant and system processes. Operate electrical and SCADA systems. Monitor critical elements in a complex and regulated system. Implement real-time actions to ensure the stable and reliable operation. Comply with applicable NERC Reliability Standards and regional rules and tariffs. Monitor and analyze available market information to identify dispatching and trading opportunities. Analyze and evaluate energy transactions.

KNOWLEDGE/SKILLS

Wind technician knowledge. Plant and system processes, Operation of electrical and SCADA systems, Functional systems interactions.

REQUIREMENTS

Education/Training

Bachelor's degree or formal operations apprenticeship training or equivalent preferred.

Experience

3-4 years' experience in Operations or in a Wind Technician Role is preferred. Competent technical knowledge of plant and system processes, and experience in operating electrical and SCADA systems.

Credentialing Required/Optional

Must obtain NERC RC certification within 12-months. GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Operations Manager

CAREER PATH MOVES FROM THIS ROLE

Operations Manager

Reliability Engineer

DESCRIPTION

Assess wind turbine technical performance and reliability. Identify opportunities for improvement, and recommend remediation actions for operations. Conduct failure mode and effect analysis, root cause assessments, equipment troubleshooting, and system impact studies. Support field operations by performing studies in response to major component and systemic equipment failures. Use information / data to evaluate the future risk to wind turbines.

KNOWLEDGE/SKILLS

Rotational, generational, and power converter equipment knowledge. Reading and understanding plans, specifications, drawings, and technical documents. Assessing performance and reliability. Conducting failure mode and effect analysis, root cause assessments, equipment troubleshooting, and system impact studies. Analyzing and synthesizing data.

REQUIREMENTS

Education/Training

Bachelor's degree in mechanical, civil, or electrical engineering, OR demonstration of equivalent work experience is required as a minimum.

Experience

2-3 years' experience in reliability or design engineering. Wind power operations or Electric Utility operations preferred.

POSITION REPORTS TO

Engineering Manager

CAREER PATH MOVES FROM THIS ROLE

Engineering Manager, Project Manager

Safety Manager II

DESCRIPTION

Plan, organize and implement the company safety programs. Demonstrate management skills and the ability to manage all aspects of a project safety program. Develop project specific HSE programs and procedures through interface and teamwork with Project / Operations management/supervisory personnel. Maintain Accountability Programs on all projects for safety-related issues and work with supervision to ensure uniform application of safety related discipline. Be the lead safety manager on a project. Serve as a mentor and manage other direct report safety/EHS managers. Demonstrate skills of a Safety Manager III by progressively increasing responsibility and authority. Develop and facilitate EHS project risk assessments. Lead and conduct accident, near miss, and damage investigations with Root Cause Analysis. Develop and monitor EHS performance, progress, preventive and corrective action plans.

KNOWLEDGE/SKILLS

MSHA/OSHA regulations and hazard recognition, record keeping and injury management. Environmental, Health & Safety policies and procedures. Managing safety of work sites, mitigating identified safety hazards. Managing people, including contractors. Reviewing technical and EHS training reports. Developing and implementing safety training, and safety alerts. Auditing work sites for EHS program effectiveness. Supporting injured workers. Case management. Developing, implementing and maintaining an effective site-specific safety/EHS plan.

REQUIREMENTS

Education/Training

Associates / Bachelor's degree.

Experience

Minimum of 3 years of construction experience managing safety. Demonstrated ability to provide a high level of safety leadership to both management and technicians.

Credentialing Required/Optional

Certified Hygiene Safety Technician (CHST) preferred. Or other BCSP certification preferred. Certification as an OSHA, MSHA. CPR/First Aid instructor preferred.

POSITION REPORTS TO

EHS Senior Leadership or a Group/ Senior Safety Manager

CAREER PATH MOVES FROM THIS ROLE

Senior Safety Manager, Safety Manager III

Asset Manager

DESCRIPTION

Safely maximize the profitability of clean energy assets. Develop budgets for projects and determine project performance. Conduct variance analysis and financial analysis. Develop cash flow forecasting. Assist with managing cash flow to meet budget and contractual needs, and financial targets. Develop other analyses as needed. Collaborate with the operations engineering team to evaluate and improve operational performance. Work with project team in contracting process from vendor bid solicitation to contracting. Work with other staff on operational and maintenance improvements, repair & replacement. Assist project team with compliance with regulations and legal contract requirements, as well as with purchase, operating, and credit agreements, and deliverables. Interface and collaborate with engineers, service providers, local and state authorities, operations, landowners investors. Develop reports regarding asset optimization, and provide recommendations to field teams.

KNOWLEDGE/SKILLS

Managing multiple, deadline-driven projects. Planning, prioritization, and time management. Contract compliance and contract management. Budgeting process, basic accounting principles, and P&L management. Wind and solar energy generating systems. Renewable energy markets. Power trading. Financial structures of energy projects. Financial analysis & modeling.

REQUIREMENTS

Education/Training

Bachelor's degree in finance or engineering

Experience

Minimum 5 years' experience in the utilities / energy sector; experience with financial metrics & analyses.

POSITION REPORTS TO

Director of Wind Operations or CFO

CAREER PATH MOVES FROM THIS ROLE

Director of Wind Operations or Engineering or Project Manager on other green energy systems

Composite Blade Manager

DESCRIPTION

Oversee and support blade repair crews and assist in performing complex repairs as necessary. Evaluate and approve employee blade competency levels for blade repair training. Develop new and amend existing work instructions for blade repairs used on renewables' sites. Oversee certification for Composite Blade Training Program. Perform evaluations of blade repairs and blade teams in accordance with Safety, Quality and Productivity expectations. Evaluate and document blade damage dispositions for all categories of blade repairs. Perform and/or review blade repair reports, quality reviews, open cases and ensure appropriate follow-up measures are taken. May be required to review and certify blade repair. Monitor and report blade failure rates using reliability methodology. Support and review the procurement of blade assets necessary to complete jobs in timely manner.

KNOWLEDGE/SKILLS

Blade damage assessment, multiple manufacturers and repair types. EHS requirements. Non-Destructive Testing, composite materials. Integral, spar/shell and web blades, manufacturing of blades and/or designing blade repairs, performing quality inspections from damage identification to repair reporting. Operations and maintenance of electrical, mechanical, hydraulic, or pneumatic systems.

REQUIREMENTS

Education/Training

Associate (minimum 2-year) degree in aerospace, mechanical or related technical field, or equivalent experience.

Experience

7+ years' of wind energy composite experience, experience working on integral, spar/shell and web blades, proven experience in manufacturing of blades and/or designing blade repairs, performing quality inspections.

Credentialing Required/Optional

GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered. American Composites Manufacturers Association (ACMA): Certified Composites Technician (CCT), CCT—Advanced Composites (CCT—AC), and CCT—Wind Blade Repair

POSITION REPORTS TO

Maintenance Manager, O&M Manager, Director Wind

CAREER PATH MOVES FROM THIS ROLE

Maintenance Manager, O&M Manager, Director Wind

Director, Meteorology

DESCRIPTION

Develop and manage the meteorology program to support the company's wind energy generation business and to provide wind energy forecasts for locations of interest. Oversee the compilation of meteorological database for wind projects including archiving of past meteorological data, current operating projects, data, and development project data. Oversee the assessment of site suitability and micro-siting for development stage projects to optimize wind farm design. Manage Data Analysts, Field Technicians, and/or contractors providing meteorological tower erection, data analysis, numerical modeling, and forecasting. Provide analytical support and modeling capabilities to both finance and development from project conception through project operations.

KNOWLEDGE/SKILLS

Technical, commercial, and political aspects driving the wind industry, Meteorology, atmospheric science, wind energy forecasting, wind farm design, analyses, modeling.

REQUIREMENTS

Education/Training

Bachelor's and/or Master's degree in Meteorology, Atmospheric Science or a related science.

Experience

10-15 years' of related meteorological experience.

POSITION REPORTS TO

Vice President Operations, VP Wind Business

CAREER PATH MOVES FROM THIS ROLE

Vice President Operations, VP Wind Business

Director, Operations & Maintenance

DESCRIPTION

Manage overall strategic and operational activities for O&M projects in wind farms and potentially other clean power operations. Manage scheduled and unscheduled maintenance work, out of scope transactional work and inspection work. Monitor subcontractors with regard to crane, mechanical, electrical and other work. Develop mid-term and long-term strategic plans for all O&M site operations. Include business plans, hiring strategies, development of strategic capabilities, and contributions to new site setup.

KNOWLEDGE/SKILLS

Strong business acumen, ability to run O&M projects as a business. Highly familiar with site management structure in the US for complex technical projects in the clean power industry. Strong knowledge and appreciation of the technical, commercial, and political aspects driving the wind industry.

REQUIREMENTS

Education/Training

Bachelor's degree in relevant discipline or similar degree/ experience required.

Experience

Minimum 5 years' experience Wind Energy Service Operations with project planning, execution, and history of improvements.

Credentialing Required/Optional

GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Vice President Operations, VP Wind Business

CAREER PATH MOVES FROM THIS ROLE

Vice President Operations, VP Wind Business

Director, Quality & Operations Support

DESCRIPTION

Standardize and strengthen the company's quality, environmental, and health & safety approach. Contribute to the quality culture throughout the company. Develop, document, and implement technical documentation, training programs and quality policies to facilitate continuous improvement and the development of a solid QHSE framework. Ensure that subject matter experts review the project specifications, engineering design, and OEM requirements and identify all Quality Control requirements. Train others and manage project QC inspections and documentation to verify compliance with construction or operations Quality Plan(s). Ensure that projects and processes are in line with statutory obligations.

KNOWLEDGE/SKILLS

Business development, site assessments and quality checks. Setting scopes and cost bases for service contracts. Optimizing Operation IT programs, managing and administering subcontractors and partner contractors, conducting investigations, analyzing and reporting findings. Developing and monitoring quality performance. Preventative and corrective action plans.

REQUIREMENTS

Education/Training
Bachelor's degree required. Master's degree is preferred.

Experience
10+ years' of management experience.

Credentialing Required/Optional
GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Vice President Operations, VP Offshore Wind Business

CAREER PATH MOVES FROM THIS ROLE

Vice President Operations, VP Offshore Wind Business

Engineering Manager

DESCRIPTION

Provide engineering expertise and general support to the onsite operations and maintenance teams. Ensure successful operations strategy. Implement processes and procedures. Lead and develop the engineering team to work on engineering solutions. Read and interpret documents such as operating and maintenance instructions, procedures manuals, blueprints and schematics. Write reports and correspondence. Solve complex problems in various situations. Make presentations to customers and at trade shows. Conduct root cause analysis and support troubleshooting, fault analysis and technical investigations. Lead development of upgrades. Ensure repairs are performed according to standards and procedures. Develop and implement strategic and tactical plans.

KNOWLEDGE/SKILLS

Engineering expertise. Implementing and advising on operations strategy. Implementing processes and procedures. Leading and developing people. Developing engineering solutions. Reading and interpreting documents such as operating and maintenance instructions, procedures manuals, blueprints and schematics. Writing reports and correspondence. Solving complex problems. Making presentations to customers and at trade shows. Conducting root cause analysis and technical investigations. Leading development of upgrades.

REQUIREMENTS

Education/Training

Bachelor's degree in Electrical Engineering or related field.

Experience

Minimum of 3 years of wind technical experience. Collaboration with and leadership of other teams. Experience with various equipment manufacturers, platforms, systems and components. Experience with system design and development of upgrades.

Credentialing Required/Optional

PE (Professional Engineer) certification may be required. GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Director of Operations

CAREER PATH MOVES FROM THIS ROLE

Director of Operations, Project Manager

Maintenance Manager

DESCRIPTION

This position may also be combined with Operations manager (See Operations Manager / O&M Manager). Oversee operations and staff. The primary objective is accountability for the safe and compliant operations of the utility scale Offshore Wind farm. Support the site / facility manager in operating the site. Develop strategy for improved maintenance diagnostics and operation. Lead and train more junior maintenance personnel. Interact with customers. Ensure all health and safety and operating procedures are followed.

KNOWLEDGE/SKILLS

Working around low, medium and high voltage. Reading and interpreting operating and maintenance instructions, and procedure manuals. Writing routine reports and correspondence. Developing strategy. Troubleshooting involving complex variables. Leading and training crews. Supervision of others and site management. Customer service, public relations. Using MS Office software to include spreadsheet and document applications. Operations financial management, forecasting and controls. Plant systems and computerized maintenance management systems (SAP).

REQUIREMENTS

Education/Training

Technical School Diploma preferred or equivalent combination of education and experience. High school diploma or GED.

Experience

5+ years' experience in the operation of Offshore Wind facilities, or 7 years of equivalent experience in instrumentation & controls, MV/HV Electrical work. Qualified to perform all routine and emergency operations at an electric generation facility. Experience with operations financial management, forecasting and controls preferred. Experience working with facility systems and computerized maintenance management systems (SAP).

Credentialing Required/Optional

"Journeyman" electrician preferred. GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Maintenance Director, Offshore Wind Director, Facility Manager

CAREER PATH MOVES FROM THIS ROLE

Maintenance Director, Construction Manager, Facility Manager

Meteorologist—Senior

DESCRIPTION

Monitor and manage data from meteorological towers to prepare reports and presentations to internal and external stakeholders. Assess site suitability and perform micro-siting for development stage projects to optimize wind farm design. Assist in developing the turbine layout for wind farms based on available meteorological data using advanced mapping software. Analyze performance of operating projects, including evaluation of turbine performance in order to minimize energy losses. Provide analytical support and model capabilities to both finance and development from project conception through project operations. Mentor less-experienced team members.

KNOWLEDGE/SKILLS

Technical, commercial, and political aspects driving the wind industry, Meteorology, atmospheric science, wind energy forecasting, wind farm design, analyses, modeling.

REQUIREMENTS

Education/Training

Bachelor's and/or Master's degree in Meteorology, Atmospheric Science or a related science.

Experience

Five to eight years' of related meteorological experience.

POSITION REPORTS TO

Director, Meteorology

CAREER PATH MOVES FROM THIS ROLE

Director, Meteorology

Operations Manager

O&M Manager, Site Manager, Facility Manager

DESCRIPTION

Manage all wind farm operations day-to-day at the site for operations (and if job also includes, maintenance). Provide hands-on technical support and supervision for generation equipment and power delivery systems, as well as with other facility civil work, building maintenance, and upkeep. Work with engineering for diagnostics, and to ensure operations. Manage the monitoring of error codes and reporting. If job entails, manage schedule for maintenance and major repairs and ensure parts are ordered and coordinated. Ensure a positive working environment by maintaining discipline, morale, and employee relations. Set goals, prepare performance reviews, salary recommendations, and disciplinary recommendations. Manage the hiring and training of personnel on site. Meet or exceed production and financial targets. Work closely with asset management and accounting to manage P&L/budget, including budget planning, management and reporting.

KNOWLEDGE/SKILLS

Leadership & supervision in renewable energy, management and communication skills, organization, detail orientation, preparing budgets, keeping records, computer skills, renewable energy, wind farm operations, maintenance practices in renewable energy, mechanical and electrical troubleshooting and maintenance. Reading blueprints, schematics, and operating and maintenance manuals, and procedures. Ordering materials, tools & supplies. Ability to climb offshore wind towers.

REQUIREMENTS

Education/Training

Bachelor's degree in Mechanical Engineering, Electrical Engineering, or other related disciplines. Leadership experience in power generation, renewable energy or military.

Experience

Leadership and technical experience in the power generation, renewable energy industry, electrical marine lines, military operations or related fields. Experience with mechanical and electrical troubleshooting and maintenance.

Credentialing Required/Optional

GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Director O&M (Operations & Maintenance), Regional Operations Manager, Asset Manager/Director

CAREER PATH MOVES FROM THIS ROLE

Director O&M (Operations & Maintenance), Regional Operations Manager, Asset Director

Reliability Engineering Manager

DESCRIPTION

Deliver reliability analytics to the organization. Provide leadership and expertise to the reliability team, which is responsible for development of the reliability analytics for installed energy components, new products under development, and quality issues in the field. Coordinate with other areas across the organization to develop reliability models that provide cost projections to assess and manage cost risk for wind assets. Work cross-functionally to develop a strategy that supports risk management through reliability modeling. Track and trend reliability predictions compared against actuals and targets. Provide input in new product development through reliability modeling. Provide reliability insights to properly develop and prioritize productivity & repairs projects.

KNOWLEDGE/SKILLS

Reliability modeling techniques and technologies, problem solving; Reliasoft, JMP, and/or SAS modeling software, R or Python programming language.

REQUIREMENTS

Education/Training

Bachelor's degree in Engineering, Physics, Chemistry, Mathematics, or Computer Science.

Experience

Minimum 7 years' experience, including technical and leadership experience. Wind experience in design, installation, operation and maintenance.

POSITION REPORTS TO

Reliability Director, Offshore Wind Director

CAREER PATH MOVES FROM THIS ROLE

Reliability Director, Installation or Design Engineer

Safety Manager III

DESCRIPTION

Plan, organize and implement the company safety programs. Demonstrate management skills and the ability to manage all aspects of a project safety program. Develop project specific HSE programs and procedures through interface and teamwork with Project / Operations management/supervisory personnel. Maintain Accountability Programs on all projects for safety-related issues and work with supervision to ensure uniform application of safety related discipline. Be the lead safety manager on a project when necessary. Lead job site safety/EHS department. Function under the authority and direction of EHS Leadership. Serve as a mentor for and provide active leadership for their Safety/ HSE managers / personnel. Develop and facilitate EHS project risk assessments. Lead and conduct accident, near miss, and damage investigations with Root Cause Analysis. Develop and monitor EHS performance, progress, preventive and corrective action plans.

KNOWLEDGE/SKILLS

MSHA/OSHA regulations and hazard recognition, record keeping and injury management. Environmental, Health & Safety policies and procedures. Managing safety of work sites, mitigating identified safety hazards. Managing people, including contractors. Reviewing technical and EHS training reports. Developing and implementing safety training, and safety alerts. Auditing work sites for EHS program effectiveness. Supporting injured workers. Case management. Developing, implementing and maintaining an effective site-specific safety/EHS plan.

REQUIREMENTS

Education/Training

4-year degree in Safety or related field.

Experience

Minimum of 5 years of construction experience managing safety or a related field. Demonstrated ability to provide a high level of safety leadership to both management and technicians.

Credentialing Required/Optional

Certified Hygiene Safety Technician (CHST) or higher BSCP certification. OSHA, MSHA and CPR/First Aid instructor.

POSITION REPORTS TO

EHS Senior Leadership or a Group/ Senior Safety Manager

CAREER PATH MOVES FROM THIS ROLE

Senior Safety Manager

Senior Financial Analyst & Planner

DESCRIPTION

Manage the range of assets for the business, from a financial standpoint. Prepare financial statements, forecasts, and reports. Manage the project financing process for various projects. Obtain construction loans, ensure development of equity, and secure debt vehicles. Manage project debts. Assist CFO and CEO with developing expansion or acquisition opportunities based on knowledge of the wind energy market. Manage financial close process. Ensure that business is in compliance and legal requirements are met. Provide supervision to other financial staff. Analyze and propose ways for the company to reduce costs. Assist management in making financial decisions. Perform data analysis and advise senior management on maximizing business profits and reducing costs.

KNOWLEDGE/SKILLS

Business analysis, advising senior leaders, financial analysis, developing financial reports and spreadsheets. Using math and finance tools. Financial practices and wind market knowledge. Developing and making presentations. Managing other financial staff.

REQUIREMENTS

Education/Training

Bachelor's degree required; Graduate degree often required.

Experience

5-10 years of experience in another business or financial occupation, such as an accountant, financial analyst or auditor.

POSITION REPORTS TO

Finance Manager or Director, or CFO

CAREER PATH MOVES FROM THIS ROLE

Finance Manager

Advanced Manufacturing Technician

Production Technician, Manufacturing Maintenance Technician

DESCRIPTION

Use mechanical, hydraulic, electrical, electronic, pneumatic or CNC technologies to set up, test, adjust and perform maintenance on Offshore Wind manufacturing equipment. With appropriate training and experience, these technicians may also repair or operate, or develop programming for electronic or computer-controlled mechanical systems. Observe and track quality and productivity of manufacturing processes and equipment. Work with mechanical engineers to analyze processes and equipment and develop solutions and improvements. Inspect finished products for quality and adherence to specifications.

KNOWLEDGE/SKILLS

Mechanical, electronic, electrical, hydraulic maintenance and repair, machine adjusting, equipment troubleshooting, various machinery, hand tools, CNC / electronic equipment. Equipment maintenance and repair.

REQUIREMENTS

Education/Training

Minimum technical training post-secondary; HS diploma. Associate's degree preferred.

Experience

1-3 years' technician experience.

Credentialing Required/Optional

Designation as a Power System Electrician or advanced certificate course in power systems, protective relaying theory, and computerized relaying theory.

POSITION REPORTS TO

Production Supervisor, Maintenance Supervisor

CAREER PATH MOVES FROM THIS ROLE

Mechanical Engineer (with education), Maintenance Supervisor

Assembler / Fabricator

DESCRIPTION

Assemble the parts that go into wind products. Use various machines and hand tools to create and assemble wind turbine components, wind blades, tower structures, instrument / electronic panels & devices, and other parts. Use schematics and blueprints to create and assemble. Conduct quality assurance of parts and assemblies. Collaborate with engineering and design in product development or changes to product design. Use various electronic, robotic, computer, or hand tools to fit components together and make alignment adjustments. Create wind blades by combining layers of fabrics, adhesives and protective coatings. Cut, trim, mold components. For assembly, connect parts with bolts & screws or by welding or soldering. Use hand tools, robots, etc. to assist in assembly. Assist in the testing of new products.

KNOWLEDGE/SKILLS

Assembling parts and components. Math skills. Use of computers. Mechanical skills and using various pieces of equipment in assembly. Using hand tools. Technical manuals, blueprints and schematics. Using soldering iron to perform certified soldering. Cutting and shaping metal into parts and components.

REQUIREMENTS

Education/Training

High school graduate or GED.

Experience

At least one year of experience in the assembly of small, intricate parts and assemblies and in performing expert soldering. Two years of technical experience preferred.

POSITION REPORTS TO

Manufacturing Supervisor or Lead

CAREER PATH MOVES FROM THIS ROLE

Machinist, Tool & Die Maker

Warehouse Assistant

Warehouse Support

DESCRIPTION

Responsible for working directly with Warehouse Manager to coordinate the shipping, receiving and inventory. Responsible for cleanliness and organization of warehouse. Inspect all equipment and rigging coming in or leaving the warehouse. Assist with loading and unloading trucks. Prepare orders, process requests, and pull equipment and materials. Assist with inventory management. Interpret specifications and work orders. Requisition, obtain and distribute supplies and materials. Read, prepare, collect and maintain reports.

KNOWLEDGE/SKILLS

Construction practices, warehouse practices, reading and interpreting specifications and reports. Using tools and equipment. Inventory. Data entry and computer skills. Lifting and moving objects regularly between 10 and 50 pounds; occasionally lifting much heavier.

REQUIREMENTS

Education/Training

HS Diploma or GED preferred. 1-2 year certificate from college or technical school and/or 6 months to one year of related experience.

Experience

Training or 6 months to a year of related experience.

POSITION REPORTS TO

Warehouse Foreman, Supervisor or Manager; Supply Chain Manager

CAREER PATH MOVES FROM THIS ROLE

Warehouse Foreman

Blade Testing Engineer—Entry

DESCRIPTION

Under close supervision, support the continuous improvement of blade product quality to control and improve upon the non-conformities across manufacturing facilities. Test composite materials, working in the range from small scale testing to full scale testing of offshore wind turbine blades. Update team regarding test findings for all alarms and warnings. Perform troubleshooting on Offshore Wind Turbine anomalies to determine root cause, and communicate action needed. Aid in the support of blade repair efforts using a statistical approach for continuous improvement. Review mechanical design, composite material, and systems. Review material defects. Help to develop, verify, and validate test methods in blade testing and repair documentation.

KNOWLEDGE/SKILLS

Strong knowledge of composite materials and process. Basic knowledge in SAP or QDA preferred. Mechanical system in wind blade production. Mechanical design and systems.

REQUIREMENTS

Education/Training

Bachelor's Degree in Mechanical/Composites.

Experience

At least one to two years of experience in mechanical engineering or other relevant experience.

Credentialing Required/Optional

GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Intermediate, Senior or Advanced Blade Testing Engineer

CAREER PATH MOVES FROM THIS ROLE

Intermediate Blade Testing Engineer, Other Intermediate Engineer

Blade Testing Engineer—Intermediate

DESCRIPTION

Under broad supervision, support the continuous improvement of blade product quality to control and improve upon the non-conformities across manufacturing facilities. Test composite materials, working in the range from small scale testing to full scale testing of wind turbine blades for offshore wind structures. Update team regarding test findings for all alarms and warnings. Perform troubleshooting on Offshore Wind Turbine anomalies to determine root cause and communicate action needed. Aid in the support of blade repair methods using a statistical approach for continuous improvement. Review mechanical design, composite material, and systems. Review material defects. Help to develop, verify, and validate test methods in blade testing and repair documentation.

KNOWLEDGE/SKILLS

Strong knowledge of composite materials and process. Basic knowledge in SAP or QDA preferred. Mechanical design and Mechanical system in wind blade production.

REQUIREMENTS

Education/Training

Bachelor's Degree in Mechanical/Composites.

Experience

At least three to five years of experience in mechanical engineering or other relevant experience.

Credentialing Required/Optional

GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Intermediate, Senior or Advanced Blade Testing Engineer

CAREER PATH MOVES FROM THIS ROLE

Intermediate Blade Testing Engineer, Other Intermediate Engineer

Industrial Engineer

Manufacturing Engineer

DESCRIPTION

Using knowledge from various engineering disciplines, develop processes, policies, and practices to prevent or mitigate health, safety, or environmental issues with Offshore Wind operations. Conduct environmental impact studies and recommend management and mitigation strategies. Monitor and address environmental and hazardous concerns such as materials and facility practices. Work with regulatory personnel. Conduct inspections of Offshore Wind sites and facilities, evaluating compliance with environmental, health and safety regulations. Monitor improvements and needed changes to practices.

KNOWLEDGE/SKILLS

Quality control, Offshore Wind systems, process and system design, operations analysis, statistical analysis, technology design, computer programming, equipment evaluation, mathematical modeling.

REQUIREMENTS

Education/Training

Bachelor's degree in engineering, math or science. Advanced roles may require a Master's degree & licensure.

Experience

5+ years' experience.

Credentialing Required/Optional

PE (Professional Engineer) may be required.
GWO (Global Wind Organisation) certified.
WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Engineering Manager or Manufacturing Manager

CAREER PATH MOVES FROM THIS ROLE

Other engineering roles, Engineering Manager, Director of Manufacturing

Inspector & Quality Control

DESCRIPTION

Responsible for verifying that offshore wind components of tower, nacelle and blades, are manufactured according to specifications, move correctly, and are properly lubricated. (Some inspectors may focus on the nacelle, others on the blades, etc.) Perform type of inspection required for part or component—quick visual or longer, detailed one. Record results of examinations and submit quality control reports. Ensure that design specifications are followed precisely, to maintain the quality of the manufacturing process.

KNOWLEDGE/SKILLS

Quality control and inspection practices, material science, reading design schematics and specifications, testing procedures and tools, writing quality control reports.

REQUIREMENTS

Education/Training

Minimum associate's degree in quality control, material science, or related field. Bachelor's degree preferred.

Experience

2+ years' inspection and quality control of manufactured wind energy components and structures. Inspection and quality control of offshore wind components preferred.

Credentialing Required/Optional

GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Quality Control Manager

CAREER PATH MOVES FROM THIS ROLE

Quality Control Manager, Mechanical or Electrical Engineer (with education)

Journeyman Electrician

DESCRIPTION

Responsible for installing, maintaining, and repairing electrical wiring, equipment, fixtures and ensuring that work is in accordance with relevant codes. Ensure the proper functioning of all electrical units and components. Complete scheduled checks to spot malfunctions. Use electrical testing and repair equipment. Maintain records of all electrical inventories and place orders for spare parts and equipment. Maintain a log of electrical repair and maintenance works. Journeyman Electricians may supervise Apprentice Electricians.

KNOWLEDGE/SKILLS

Long-term on the job training. Repair or replace complex electrical lines and equipment. Electrical systems and the appropriate tools needed to fix and maintain them. Troubleshooting skills—must diagnose problems in increasingly complex electrical systems. Able to lift heavy tools, cables, and equipment on a regular basis.

REQUIREMENTS

Education/Training

Bachelor's degree or an Associate's degree or diploma in electrical engineering, mechanical engineering or related field.

Experience

4+ years working as an electrician

Credentialing Required/Optional

"Journeyman" electrical license. GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Construction Manager, Project Manager, Electrician Supervisor or Manager

CAREER PATH MOVES FROM THIS ROLE

Electrician Supervisor or Manager

Blade Testing Engineer—Advanced

DESCRIPTION

Provide leadership and direction to employees who are training in their roles. Ensure continuous improvement to control and improve upon the non-conformities in blade product quality, across the manufacturing plants. Understand the mechanical system in offshore wind blade production. Test composite materials, working in the range from small scale testing to full scale testing of wind turbine blades. Update team regarding test findings for all alarms and warnings. Perform troubleshooting on Wind Turbine anomalies to determine root cause and communicate action needed. Support blade repair methods using a statistical approach for continuous improvement. Review and understand mechanical design, composite material, and systems. Review material defects. Develop, verify, and validate test methods used in blade testing and repair documentation.

KNOWLEDGE/SKILLS

Strong knowledge of mechanical engineering, composite materials and process, SAP or QDA. Mechanical design and systems.

REQUIREMENTS

Education/Training

Bachelor's Degree or Master's Degree in Mechanical/Composites. Knowledge of composite materials and process. Basic knowledge in SAP or QDA preferred.

Experience

At least five to seven years of experience in mechanical engineering or other relevant experience.

Credentialing Required/Optional

PE (Professional Engineer) desirable.
GWO (Global Wind Organisation) certified.
WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Manufacturing or Operations Manager or Engineering Manager or Director

CAREER PATH MOVES FROM THIS ROLE

Manufacturing or Operations Manager or Engineering Manager or Director, Project Manager

Blade Testing Engineer—Senior

DESCRIPTION

Mentor less-experienced team members. Ensure the continuous improvement in offshore blade product quality to control and improve upon the non-conformities across manufacturing plants. Test composite materials, working in the range from small scale testing to full scale testing of wind turbine blades. Update team regarding test findings for all alarms and warnings. Perform troubleshooting on Offshore Wind Turbine anomalies to determine root cause and communicate action needed. Aid in the support of blade repair methods using a statistical approach for continuous improvement. Review mechanical design, composite material, and systems. Review material defects. Help to develop, verify, and validate test methods in blade testing and repair documentation. Support blade repair methods use a statistical approach for continuous improvement. Review and understand mechanical design, composite material, and systems. Review material defects. Develop, verify, and validate test methods used in blade testing and repair documentation.

KNOWLEDGE/SKILLS

Strong knowledge of composite materials and process. Basic knowledge in SAP or QDA preferred. Mechanical system in wind blade production. Mechanical design.

REQUIREMENTS

Education/Training

Bachelor's Degree or Master's Degree in Mechanical/Composites.

Experience

At least five years of experience in mechanical engineering or other relevant experience. Experience in wind energy.

Credentialing Required/Optional

PE (Professional Engineer) desirable.
GWO (Global Wind Organisation) certified.
WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Engineering Manager or Director, or Manufacturing or Operations Manager

CAREER PATH MOVES FROM THIS ROLE

Engineering Manager or Director, Project Manager

Industrial Engineering Manager

Manufacturing Engineering Manager

DESCRIPTION

Direct research & development activities that support engineering initiatives. Plan and lead engineering activities (industrial / manufacturing). Provide leadership to engineers. Design and develop components and systems. Work with engineers to develop quality standards for components, parts, assembly and testing. Manage engineering support needed for sales group for contracts, proposals, and customer meetings. Make detailed resource plans and schedules to reach technical goals. Direct and coordinate the design of equipment and machinery. Discuss organizational engineering needs with other leaders. Determine budgets, staff needs, and resource needs. Hire and train staff.

KNOWLEDGE/SKILLS

Developing designs, solving problems, and making decisions. Complex engineering projects and analysis. Evaluating information. Communicating with and leading teams. Budgeting, scheduling. Specific area of engineering.

REQUIREMENTS

Education/Training

Bachelor's degree in relevant engineering discipline required. Masters degree preferred.

Experience

6-10 years experience as an engineer. Experience leading engineering teams and working on complex projects.

Credentialing Required/Optional

PE (Professional Engineer) a plus.

POSITION REPORTS TO

Engineering Director, Director Offshore Wind

CAREER PATH MOVES FROM THIS ROLE

Engineering Director, Manager of other engineering discipline

Buyer

Procurement Specialist, Procurement Associate

DESCRIPTION

Provide commercial support to pre & post award projects and report to the assigned Procurement Manager or Director of Procurement. Prepare and issue RFP equipment packages to suppliers. Work with engineering to answer RFP questions. Receive and evaluate proposals. Negotiate pricing with suppliers. Work closely with engineering project management, scheduling, legal and insurance. Secure completed purchase requisition and purchase terms and conditions, and confirm final purchase order. Monitor, support and administer all issued purchase orders. Manage stakeholder & supplier interaction. Assist in schedule development for project proposals. Assist estimating with equipment scope and price.

KNOWLEDGE/SKILLS

Oral and written communication, Engineering, construction industry standards, specifications and organizations. RFP and contracting process for purchasing from suppliers. Negotiating. Problem solving.

REQUIREMENTS

Education/Training

4 year college degree in business field or combination of education and experience. Additional financial, business or legal degree and additional wind training needed for advancement.

Experience

Minimum 3 years' experience in procurement (preferably with engineering or construction industries).

POSITION REPORTS TO

Senior Buyer or Procurement Manager or Director

CAREER PATH MOVES FROM THIS ROLE

Senior Buyer, Procurement Manager or Director

Commissioning Technician

DESCRIPTION

Work with team to perform required system inspections on utility wind power facilities. Perform visual and mechanical inspections and electrical testing to specifications of construction documents, prior to energization date. Document all inspection findings and test results, and communicate the findings and test results with Commissioning Lead. Document and assist with wind system troubleshooting and corrective actions. Oversee third party testing and inspections. (Transformers, audits, cable tests, Fiber optics, etc.) Ensure site documentation is prepared for upcoming sites. Ensure proper use of PPE and conformity to safety procedures. Care for tools and report any missing or broken tools and needed supplies to Lead.

KNOWLEDGE/SKILLS

Wind systems, use of multi-meter, reading and using electrical single-line and three-line diagrams, safe work practices, visual and mechanical inspections and electrical testing.

REQUIREMENTS

Education/Training

HS Diploma or equivalent.
Training in wind systems preferred.

Experience

Minimum 1 year wind turbine installation experience.

Credentialing Required/Optional

GWO (Global Wind Organisation) certified.
WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Commissioning Manager

CAREER PATH MOVES FROM THIS ROLE

Commissioning Engineer

Laborer

General Laborer

DESCRIPTION

Responsible for performing tasks involving physical labor at construction projects, excavations, and demolition sites while operating hand and power tools of all types, and other equipment and instruments. Lift and carry materials, tools & supplies. Clean up rubble and assist other craft workers. Perform variety of routine, non-machine tasks.

KNOWLEDGE/SKILLS

Construction skills including: tools, manual lifting. Reading & interpreting documents (safety rules, O&M instructions, procedures). Math, unit weights and volumes. Following procedures.

REQUIREMENTS

Education/Training
HS Diploma or GED

Experience
1-3 months related experience and/or training or equivalent combination of education & experience

Credentialing Required/Optional
GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Craft Supervisor or Foreman

CAREER PATH MOVES FROM THIS ROLE

Craft / Tradesman (with training)

Construction Manager

DESCRIPTION

Responsible for directing, planning, and managing Wind Offshore construction project(s) on jobsite. Oversee all construction contracts within area of responsibility, and supported by Site Teams. Monitor and oversee construction activities and personnel. Keep Superintendent II and Construction Manager II informed of overall construction activity progress and performance. Monitor and review construction performance indicators. Manage construction package elements of procurement process. Follow all health and safety procedures.

KNOWLEDGE/SKILLS

Business development, Wind Offshore systems, estimating, construction management, electrical systems and SCADA, planning, procurement, health & safety, MS Office, reading and interpreting blueprints, procedures, government regulations, presentations to management and public groups, writing reports, managing construction crew, interpreting technical instructions using math, algebra & geometry.

REQUIREMENTS

Education/Training

Bachelor's degree (BS) in Construction management, engineering or related field; equivalent combination of education and experience).

Experience

Three years of construction industry experience / knowledge of construction techniques, estimating and construction management.

POSITION REPORTS TO

Project Manager or Director of Wind Offshore Projects

CAREER PATH MOVES FROM THIS ROLE

Construction Manager II or Project Manager or Superintendent

Construction Manager II

DESCRIPTION

Responsible for directing, planning, and managing Wind Offshore construction project(s) on jobsite. Oversee all construction contracts within area of responsibility, and supported by Site Teams. Monitor and oversee construction activities and personnel. Keep Superintendent II and Construction Manager II informed of overall construction activity progress and performance. Monitor and review construction performance indicators. Manage construction package elements of procurement process. Follow all health and safety procedures.

KNOWLEDGE/SKILLS

Business development, Wind Offshore systems, estimating, construction management, electrical systems and SCADA, planning, procurement, health & safety, MS Office, reading and interpreting blueprints, procedures, government regulations, presentations to management and public groups, writing reports, managing construction crew, interpreting technical instructions using math, algebra & geometry.

REQUIREMENTS

Education/Training

Bachelor's degree (BS) in Construction management, engineering or related field; equivalent combination of education and experience).

Experience

Five years in a supervisory role of construction industry including construction techniques, estimating and construction management.

POSITION REPORTS TO

Project Manager or Director of Wind Offshore Projects

CAREER PATH MOVES FROM THIS ROLE

Construction Manager III or Project Manager or Superintendent

Commissioning Manager

DESCRIPTION

Oversee project development, construction and commissioning operations from the Offshore Wind planning, checking, quality assurance, monitoring, evaluation, and preparation of commissioning reports to management. Staff, train, and manage Offshore Wind commissioning team personnel. Ensure all EHS policies and procedures are followed. Create guidelines and procedures to ensure all project activities are completed according to a standard process, project plan and budget. Conduct routine audits as necessary. Interact with engineering to troubleshoot any technical issues. Manage budgets.

KNOWLEDGE/SKILLS

Electrical and mechanical theory. Team supervision. Budgeting procedures. Commissioning operations and practices for Wind energy projects. Interpreting engineering drawings.

REQUIREMENTS

Education/Training

Bachelor's degree in engineering or technical discipline; Masters degree preferred.

Experience

5-7 years Experience with power generation equipment and commissioning procedures. Construction and commissioning experience in structural assembly, electrical protection and control systems related to the site work.

Credentialing Required/Optional

Optional: REP—Renewable Energy Professional and Certified Energy Manager from the Association of Energy Engineers (aeecenter.org)

POSITION REPORTS TO

Director, Offshore Wind, Commissioning; Director, Offshore Wind

CAREER PATH MOVES FROM THIS ROLE

Project Manager—Commissioning; Director, Offshore Wind Commissioning

Construction Manager III

DESCRIPTION

Responsible for directing, planning, and managing Wind Offshore construction project(s) on jobsite from inception to completion. Responsible for overall direction and evaluation. Oversee all construction contracts within area of responsibility, and supported by Site Teams. Monitor and oversee construction activities and personnel. Keep Superintendent II and Construction Manager II informed of overall construction activity progress and performance. Monitor and review construction performance indicators. Manage construction package elements of procurement process. Follow all health and safety procedures.

KNOWLEDGE/SKILLS

Business development, Wind Offshore systems, estimating, construction management, electrical systems and SCADA, planning, procurement, health & safety, MS Office, reading and interpreting blueprints, procedures, government regulations, presentations to management and public groups, writing reports, interpreting technical instructions using math, algebra & geometry, supervising construction crew, construction tools, machinery methods & procedures, Forecasting for projects

REQUIREMENTS

Education/Training

Bachelor's degree (BS) in Construction management, engineering or related field; equivalent combination of education and experience).

Experience

Seven years in a supervisory role of construction industry including construction techniques, estimating and construction management.

POSITION REPORTS TO

Project Manager or Director of Wind Offshore Projects

CAREER PATH MOVES FROM THIS ROLE

Director of Wind Offshore Projects

Project Director

DESCRIPTION

Direct Offshore Wind farm installation projects, including major capital projects for enabling foundation installation, seabed intervention, dredging work. Responsible for planning and execution of installation, including staffing, engineering, and procurement through to operations, knowing that the typical project timeframe from development to operations of an offshore wind project is 3-4 years. Build and lead the project team including the site team and vessel team. Ensure projects are completed on budget, in scope, on schedule, with no HSE incidents. Manage project risks and develop plans for mitigating risks. Keep senior management up to date with status through project reporting. Manage project changes and change orders to stay on schedule and avoid delays. Manage contractors, contracts and supply acquisition. Contribute to strategic and operational development of company.

KNOWLEDGE/SKILLS

Contract management, project management and project direction, risk management and risk systems, managing large teams, dispute resolution, developing and executing strategy, offshore wind projects.

REQUIREMENTS

Education/Training

Bachelor's or Master's degree in mechanical engineering or related field. MBA is a plus.

Experience

15+ years' experience in project management for offshore installation projects. Experience as a project director of offshore wind installation projects. Experience with offshore oil and gas projects a plus.

Credentialing Required/Optional

PMP certification desirable. GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

SVP Offshore Wind, VP Offshore Wind

CAREER PATH MOVES FROM THIS ROLE

SVP Offshore Wind, VP Offshore Wind

Project Manager

Technical Project Manager

DESCRIPTION

Support operations preparation for offshore wind farms. Responsible for project management, including budgeting and planning for process of development and construction / installation to operations. Provide technical support of development activities. Manage project(s) from office location and/or remote project site and the construction of wind sites, concentrating on safety, schedule, budget, labor relations, customer satisfaction, costs and quality compliance. Responsible for holding and understanding specifications of job in regards to specific project. Identify and qualify available Operations and Maintenance service suppliers. Negotiate service agreements and scope of work. Manage supplier relationships, including change orders, and work on the wind farm projects. Plan needed equipment and personnel and manage purchase orders. Manage and update reports, order logs, and communication logs. Manage costs of the project and projected changes based on weather change orders, etc. Complete due diligence of all construction practices, procedures, and construction documents.

KNOWLEDGE/SKILLS

Knowledge of basic engineering concepts. Familiarity with wind power generation systems and equipment, marine transmission lines, reactive power compensation equipment, SCADA systems, cost analysis, constructability knowledge, safety, leadership, familiarity with equipment and creating / managing contracts and contract law.

REQUIREMENTS

Education/Training

High school diploma plus experience required. Bachelor of Science degree in engineering or construction management is desired.

Experience

5-10 years' progressively responsible experience in the clean energy industry with wind energy experience. Offshore wind industry or electrical marine lines, inter-island, interconnection, and port development preferred.

Credentialing Required/Optional

PMP certification preferred. GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Project Manager II, Construction Manager, Site Manager, Director of Offshore Wind

CAREER PATH MOVES FROM THIS ROLE

Project Manager II, Construction Manager, Site Manager

Senior Project Manager

DESCRIPTION

Support operations preparation for offshore wind farms. Responsible for project management, including budgeting and planning for process of development and construction / installation to operations. Provide technical support of development activities. Manage project(s) from office location and/or remote project site and the construction of wind sites, concentrating on safety, schedule, budget, labor relations, customer satisfaction, costs and quality compliance. Responsible for holding and understanding specifications of job in regards to specific project. Identify and qualify available Operations and Maintenance service suppliers. Negotiate service agreements and scope of work. Manage supplier relationships, including change orders, and work on the wind farm projects. Plan needed equipment and personnel and manage purchase orders. Manage and update reports, order logs, and communication logs. Manage costs of the project and projected changes based on weather change orders, etc. Complete due diligence of all construction practices, procedures, and construction documents. Work with leadership to develop strategy for offshore wind development.

KNOWLEDGE/SKILLS

Knowledge of basic engineering concepts. Familiarity with wind power generation systems and equipment, marine transmission lines, reactive power compensation equipment, SCADA systems, cost analysis, constructability knowledge, safety, leadership, familiarity with equipment and creating / managing contracts.

REQUIREMENTS

Education/Training

Bachelor's degree in engineering is required, preferably mechanical or electrical engineering or construction.

Experience

Minimum of 10-15 years' experience in the construction industry—with direct experience in wind farm design or construction. Offshore wind industry or electrical marine lines, inter-island, interconnection, and port development preferred.

Credentialing Required/Optional

PMP certification preferred. GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Construction Manager, Site Manager, Director of Offshore Wind, Project Director

CAREER PATH MOVES FROM THIS ROLE

Construction Manager, Site Manager, Project Director

Analyst / Researcher

DESCRIPTION

Work across Offshore Wind project phases including development, permitting, construction, and operational. Support or lead conceptual design studies, Offshore Wind constraint analyses, site suitability, Offshore Wind permitting and technical studies, O&M analysis, constructability analyses, cost studies, decommissioning studies, and market and supply chain assessment. Maximize revenue and efficiency for Offshore Wind customers by identifying and initiating organizational responses for conditions, opportunities, and issues related to safety, production, and performance. Collect production data and perform energy analyses. Use technical knowledge of Offshore Wind systems. Support and serve the production team, field technical operations and asset management to address all Offshore Wind related production issues. Assist in the technical evaluation of proposals. Build and manage dashboards with performance and operations data. Assist in the development of forecasts and pro-forma analyses.

KNOWLEDGE/SKILLS

Knowledge of field applications is needed to translate the data to usable results and procedures for development and operations teams. Database structures, engineering calculations. Analyzing equipment performance and identifying performance issues using software tools. Performing calculations and collecting and analyzing data.

REQUIREMENTS

Education/Training

Bachelor's degree in engineering or technical discipline; Masters degree preferred.

Experience

3+ years in asset management and/or field operations. 1 year experience in offshore wind desirable. Data analytics and statistics, building models. Experience working with large data sets, conducting root cause analyses, and visualizing data in a variety of formats for identifying trends and outliers.

POSITION REPORTS TO

Energy Project Manager, Operations Manager or Director

CAREER PATH MOVES FROM THIS ROLE

Project Manager Offshore Wind, Operations Director, Construction Manager; Offshore Wind Optimization Engineer

Research Engineer

Research and Development Engineer

DESCRIPTION

Plan and manage engineering projects to develop wind technologies and processes that produce the most efficient and cost-effective electricity. Design, develop and analyze/evaluate wind turbine components and wind power systems. Conduct research and develop improved technology. Prepare financial estimates. Build processes and systems for testing. Lead teams of technicians, engineers and scientists. Produce and analyze designs.

KNOWLEDGE/SKILLS

Conducting research, interviewing subject matter experts. Developing solutions from research and analysis. Advanced engineering and design. Solving complex engineering problems. Communicating results and information. Writing reports. Collaborating with others to solve problems, and develop and implement projects.

REQUIREMENTS

Education/Training

Bachelor's degree required.
Masters degree preferred.

Experience

3 years' engineering experience.
Design and research experience.

Credentialing Required/Optional

PE (Professional Engineer certification) may be required.

POSITION REPORTS TO

Engineering Manager

CAREER PATH MOVES FROM THIS ROLE

Engineering Manager, Project Manager

Technical Trainer

Technical Instructor

DESCRIPTION

Educate employees about wind energy in various technical topic areas related to processes, equipment, environment, resources, etc. Facilitate classroom training and on the job coaching for businesses, colleges or learning providers. Continue to develop knowledge regarding changes and industry updates, and update training to reflect this. Use field experience to provide real-life scenarios and discussion. Develop training programs, guides, assignments and skill assessments/evaluations. Instruct training and conduct demonstrations on equipment. Supervise trainees in the safe use of equipment and walk-through of procedures. Assess skills, evaluate performance and monitor trainee progress. If applicable, develop relationships with other businesses to provide training experiences for students.

KNOWLEDGE/SKILLS

Training & communicating on technical topics. Developing training curriculum. Writing procedures and instructions. Creating successful learning environments, and developing variety of methods of teaching topics so students can learn in ways that work for them. Developing and using JPM's (job performance measures). Evaluating / assessing skills.

REQUIREMENTS

Education/Training

Bachelor's degree preferred, but may not be required.

Experience

Minimum 2 years in the topic area in which Trainer will be providing training.

Credentialing Required/Optional

GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered. Requirements for licensing and certification vary by state.

POSITION REPORTS TO

Training Manager

CAREER PATH MOVES FROM THIS ROLE

Training Manager, Operations Manager

Marine Scientist

Environmental Scientist

DESCRIPTION

Working within the strategic permitting team, provide scientific input and project management for offshore wind projects. Undertake environmental monitoring surveys and coordinate data collection and management with the goal of wind projects meeting regulatory agency requirements and maintaining environmental best practices. Assist with the development of data management practices, survey protocols, and monitoring aimed at scientific investigation and reporting across multiple projects. Provide scientific support for preparation of permits for offshore wind projects. Regulations and agencies may include: Marine Mammal Protection Act authorizations and Bureau of Ocean Energy Management Construction. Serve as a technical resource for compliance by monitoring mitigation commitments and approval conditions, and by positioning projects for successful adherence to regulations and effective compliance response prior to commitments. Work with marine wildlife and fisheries scientists to develop and execute strategy and initiatives. Develop messaging and materials for communicating data and recommendations.

KNOWLEDGE/SKILLS

Marine or environmental science, Survey protocols, scientific reporting, data management, environmental regulations related to marine life and habitats and relationship to scientific surveys, assessments and mitigation measures. Regional fisheries independent surveys and monitoring activities for wildlife.

REQUIREMENTS

Education/Training

Master's degree or equivalent experience in marine science, environmental science, fisheries science natural resources or other relevant field.

Experience

Prior work experience as a marine scientist and with survey protocols, scientific reporting, and managing large sets of data with data management tools.

POSITION REPORTS TO

Permitting Director

CAREER PATH MOVES FROM THIS ROLE

Senior Scientist, Permitting Director

Materials Scientist

Research & Development Engineer

DESCRIPTION

Develop processes and new materials to reduce cost, improve efficiencies with Offshore Wind projects. Test research materials and structures to be used in various environments on Offshore Wind projects. Conduct research to develop new materials and improvements to Offshore Wind blades and structures.

KNOWLEDGE/SKILLS

Effects of various temperatures and environments on materials, materials properties, process optimization, advanced math & science, materials fabrication and processing, Offshore Wind innovations and design

REQUIREMENTS

Education/Training

MS or PhD. In applied physics, materials science or chemistry.

Experience

5+ years experience

Credentialing Required/Optional

May require engineering license

POSITION REPORTS TO

Director or VP of Manufacturing / Fabrication or Director of Offshore Wind or Director of Engineering

CAREER PATH MOVES FROM THIS ROLE

Senior Engineer, Director of Fabrication or Manufacturing

Training & Development Manager

DESCRIPTION

Strategically manage all elements of the company's technical and non-technical training programs. Define the training requirements for each staff position and oversee a system of online, classroom and OJT training using a network of trainers. Track progress in the company's online Learning Management System (LMS). Generate new course content and modify existing courses for changes and updates needed. Work collaboratively with trainers and operations. Manage employee development and new hire orientation. Plan (with organizational leaders), develop, and facilitate or procure training and staff development programs that meet the needs of the organization. Proactively manage all aspects of T&D program delivery from start to finish, including content creation, instructor coordination, project planning, and logistics. Monitor training for effectiveness. Coach leaders in skill assessment and performance evaluation. Develop testing / assessment tools and procedures. Support continuous improvement. Manage training materials, supplies & the training budget.

KNOWLEDGE/SKILLS

Managing people, facilitating training programs, developing curriculum/training, defining training requirements, and evaluating performance. Sourcing training programs / trainers. Coaching leaders. Managing budget.

REQUIREMENTS

Education/Training
Generally bachelor's degree desired; Master's degree preferred.

Experience
5 years' experience in similar role or combination of knowledge and experience in leading training efforts.

Credentialing Required/Optional
GWO (Global Wind Organisation) certified. WINDA (Wind Industry Training Records Database) registered.

POSITION REPORTS TO

Director of Operations, Human Resources Director

CAREER PATH MOVES FROM THIS ROLE

Director of Operations, Project Manager, Human Resources Director

Research and Report Completed by:
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Thank You to Research Contributors:

Acciona
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GE Renewable Energy
IEA (International Energy Agency)
Martin Up Consulting
Olsson
Pattern Energy
RWE Renewables
Wanzek

Additional Research Sources listed on following page.

For questions about this report, please contact Tom Vinson at tvinson@cleanpower.org

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American Clean Power Occupations & Career Maps
Additional Research Sources:

BLS – Bureau of Labor Statistics

CANWEA "A Roadmap to Standardized Core Competencies for Wind Turbine Technician Training"

Department of Energy (DOE) https://www.energy.gov/eere/education/explore-clean-energy-careers-0

Department of Energy (DOE) https://www.energy.gov/eere/wind/wind-career-map

Energy Futures Initiative (EFI) https://energyfuturesinitiative.org/

Environmental and Energy Institute (EESI) https://www.eesi.org/papers/view/fact-sheet-jobs-in-renewable-energy-energy-efficiency-and-resilience-2019

Ferroukhi R., Renner, M., García-Baños C., Elsayed, S., (IRENA), and Khalid, A. 2020. Renewable Energy and Jobs – Annual Review 2020. IRENA (International Renewable Energy Agency)

Get Renewable Energy Jobs https://www.getrenewableenergyjobs.com/

Green Citizen https://greencitizen.com/renewable-energy-jobs/

Greener Choices – Solar Energy Jobs https://www.greenerchoices.org/solar-energy-jobs/

Illinois Solar Energy Association https://www.illinoissolar.org/jobs

Indeed https://www.indeed.com

Interstate Renewable Energy Council (IREC) https://www.irecsolarcareermap.org

Job Descriptions previously compiled by American Clean Power (ACP)

Keyser, David, and Suzanne Tegen. 2019. The Wind Energy Workforce in the United States: Training, Hiring, and Future Needs. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-73908. https://www.nrel.gov/docs/fy19osti/73908.pdf.

LinkedIN https://www.linkedin.com

Midwest Renewable Energy Association (MREA) (solar) https://www.solarenergy.jobs

National Association of State Energy Officials (NASEO) https://www.naseo.org

NAICS/SOC codes

National Solar Jobs Census 2019, Washington, DC, February, https://www.thesolarfoundation.org/national/#:~:text=As%20of%202019%2C%20the%20National,nationwide%20from%202018%20to%202019

Solar Energy Industries Association (SEIA) https://www.seia.org/tags/workforce-development

US Energy Jobs https://www.usenergyjobs.org/

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American Clean Power is the voice of companies from across the clean power sector that are powering America's future, providing cost-effective solutions to the climate crisis while creating jobs, spurring massive investment in the U.S. economy and driving high-tech innovation across the nation. We are uniting the power of America's renewable energy industry to advance our shared goals and to transform the U.S. power grid to a low-cost, reliable, and renewable power system. Learn more about the benefits clean power brings to America at **www.cleanpower.org**.

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