



# Central Rivers Power

## Electrical Engineer and Project Manager

Type: Full-time

Status: Exempt

Location: Manchester, NH

### Position Overview

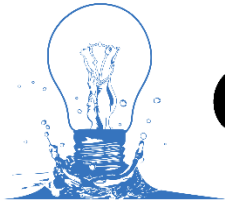
Central Rivers Power is seeking an Electrical Engineer with project management experience in the power generation industry. The Electrical Engineer/Project Manager will be responsible for oversight of major maintenance and upgrades for the electrical systems and power generation equipment for 45 hydro electrical plants throughout the U.S., as well as managing a team of Electrical and Controls Engineers supporting the fleet. This position is responsible for leading and implementing the management and maintenance of all power generation and electrical systems in line with RTO (ISO-NE, NYISO, PJM, CAISO, Duke), NERC, NFPA, and IEEE standards. The Electrical Engineer/Project Manager will manage complex projects, ensure work is completed on time, and coordinate all resources relevant to a project, including budget, staffing and materials.

### Regular Duties:

- Lead the electrical and controls team assisting the Operations department in the management and maintenance of electrical generation at hydro stations
- Develop and implement processes for the preventative maintenance of all electrical systems
- Serve as subject matter expert for electrical equipment, high voltage, controls and protection systems, transformers, and switch gear
- Manage hydroelectric plants to ISO, NERC, and IEEE standards
- Interface with interconnection companies to ensure equipment standards are met and maintained as per requirements
- Perform Arc Flash study reviews and analysis, determine required follow up actions, and complete reporting and equipment labelling for Central Rivers hydroelectric facilities
- Identify, evaluate, and recommend technical upgrades to equipment

### Infrequent Duties:

- Develop and manage projects, providing justification and cost analysis for generator rewinds, electrical controls, and protection relays upgrades, etc.
- Work with vendors and third-party personnel for successful completion of projects and work scopes
- Mentor and work with station electricians
- Perform site work when required for repairs and/or emergencies



# Central Rivers Power

## **Skills and Qualifications:**

- Thorough understanding of electrical engineering concepts such as HV/LV, power generation, power factor, Arc Flash studies, generator theory, generator rewind, load and generation modeling, etc.
- Thorough knowledge of operational power generation system protection relays, Supervisory Control and Data Acquisition (SCADA) systems
- Basic understanding of communication systems and protocols, as well as PLC programs such as GE-Cimplicity
- Familiarity with electrical distribution system control center operations and the utilization of operational technologies within this environment; strong analytical skills
- Able to clearly communicate technical concepts to both technical and non-technical audiences
- Demonstrated ability to interface effectively and collaborate with third party suppliers/vendors
- Knowledge of test and production methods for electronics/power system components

## **Required Experience:**

- Bachelor of Science in Electrical Engineering or equivalent field
- 4+ years of related experience (power generation preferred)
- Active Professional Engineer license
- Experience in performing Arc Flash analyses and studies
- Experience generating and interpreting technical documentation and reports
- Demonstrated ability to lead and manage a technical team



# Central Rivers Power

## Process Controls Engineer

Type: Full-time

Status: Exempt

Location: Manchester, NH

### Overview:

CRP is seeking an experienced Process Controls Engineer who can join our Electrical & Controls team. This position requires the ability to work with Managers, Supervisors, Hydro Technicians, contractors, and equipment suppliers. In this role, you will analyze our current controls systems, contractors, and equipment, then recommend and implement solutions, as well as manage third party contractors. You will work with the Electrical Engineer/Project Manager as well as site Operations Management to develop a schedule to update/replace HMI's, PLC's, and other critical control equipment.

### Responsibilities:

- Develop technical knowledge on hydro-electric power generation equipment and processes
- Assist/direct Hydro Technicians as needed on high level issues
- Respond to and troubleshoot critical outages of control equipment to restore production
- Participate in root cause analysis investigations and manage resolution of major equipment breakdowns and quality issues
- Review all Process Control Contractors Service Reports, especially other observations
- Assure proper documentation of all control changes and proposed, including rationale for the change
- Properly update, document, and maintain all PLC, HMI, etc. backup programs, and drawings
- Meet with Managers and Supervisors to develop new processes
- Develop work scopes for all process control projects
- Manage and monitor contractors providing upgrades to systems, review all scope of work documents, step-by-step commissioning plans, test reports, and analyze results
- Work with Site Supervisor and contractor on equipment designs, modifications, installations, including project management of all equipment upgrades, modifications, and new installations
- Work safely and ensure the safety of all team members
- Maintain an inventory of fleet asset, along with warranty dates
- When conditions dictate, overtime will be required (with little or no prior notification)
- Position reports to the Electrical Engineer/Project Manager

### Required Qualifications:

- Minimum 5-10 years process controls experience required
- Technical degree in Engineering; Discipline preferably Electrical, Computer, Mechanical or Electrical apprenticeship
- State issued Electrical License with 10 years proven work experience with PLC or SCADA controls programming and design
- Preferred Licensed Electrician
- Ability to read and troubleshoot from schematics



# Central Rivers Power

- Extensive knowledge in troubleshooting, repairing process control equipment, complex electrical circuits, and systems
- Experience in the technical analysis and troubleshooting of hydro-electric generation operational and design issues
- Ability to manage all aspects of a project, technical and business
- Ability to effectively work on several projects simultaneously ensuring compliance with company and department quality and safety standards
- Experience in coordinating and managing outside resources (vendors, consultants) to accomplish work scope objectives
- Extensive knowledge of process engineering software systems
- Ability to convert relay logic to PLC logic
- Must be proficient in PLC, HMI, and SCADA troubleshooting, programming, and design with a focus in the following:
  - GE Cimplicity and Historian
  - Emerson/GE 90-30 series, RX3i, and VersaMax PLC systems
  - ABB Scada
  - Kepware Servers
  - RTUs including SEL RTAC and Novatech OrionLX
  - Communication Protocols including Modbus, Modbus TCP, and DNP3
  - Systems network architecture including copper and fiber systems.

## **Other Preferred/Desired Skills and Abilities**

- Proficiency with Microsoft Office Suite with a focus in Outlook, Word, Excel, Teams, and PowerPoint
- Experience with the following systems and software preferred:
  - DirectLOGIC 200 series PLCs
  - OSI PI software
  - Rockwell Allen-Bradley PLC5 and MicroLogix
  - Infinilink HMI
  - AutomationDirect Productivity PLCs
  - Remote Support software (such as Bomgar) over VPN connections
  - RedLion serial Modbus to ethernet converters
  - Electric Generator Excitation control systems
  - Electric Generator Synchronization systems
  - Electric Generator Protection systems (both mechanical relay and digital relay)
- Proficiency with AutoCAD
- Demonstrated ability to work within all levels of the organization



# Central Rivers Power

## Dam Safety Engineer Job Description

Type: Full-time

Status: Exempt

Location: Remote. Candidate ideally located in upstate New York (Albany, Syracuse, or Watertown area). Other locations may be considered.

### Position Overview

The ideal candidate will have several years of experience in dam safety related fields including hydrology and hydraulics, geotechnical engineering, and structural analysis, as well as knowledge of project and construction management basics. This position is responsible for all dam safety related activities and communications with the Federal Energy Regulatory Commission (FERC) for the assigned region of projects within the Central Rivers Power fleet. This position supports maintenance and capital improvements that impact dam safety and construction oversight responsibilities. Additionally, this position will participate in a team of dam safety professionals and ensure that all aspects of the Owner's Dam Safety Program are completed in a timely and quality manner. This position reports to the Chief Dam Safety Engineer.

### Responsibilities include, but are not limited to:

- Establish and maintain positive working relationships with FERC personnel and all other key stakeholders by participating in meetings and project inspections
- Assist in managing aspects of the Owner's Dam Safety Program and development of dam safety procedures
- Conduct and participate in various field inspections as an owner/representative in Part 12 inspections and Potential Failure Mode Analysis, annual in-house inspections, construction oversight, emergency inspections, etc.
- Assist in managing Central River's relationship with third-party engineering services in conjunction with the Owner's Dam Safety Program, regulatory issues, and the CapEx Plan by participating in meetings and project inspections, reviewing submittals for quality and completeness, and ensuring timely filing with our respective regulatory agencies
- Ensure that all facilities have complete Dam Safety Surveillance Monitoring Plans (DSSMP) in accordance with the FERC requirements and that all necessary inspections are performed as scheduled
- Review DSSMP inspection results and instrumentation readings to evaluate the condition and health of the project and ensure that comprehensive Dam Safety Surveillance Monitoring Reports (DSSMR) are developed, reviewed, and submitted in accordance with the FERC requirements
- Develop and maintain all dam safety documents for the region including STID, EAP, DSSMP, and DSSMR ensuring all are complete and current
- Support in the dam safety response to any real-time dam safety events, including EAP activations and participating preparations of the EAP including Orientation, Tabletop and Functional Exercises
- Assists in the periodic trainings of hydro plant employees and in corporate safety training seminars focused on dam safety



# Central Rivers Power

## **Skills and Qualifications**

- Bachelor's Degree in Engineering is required with the ability to obtain a Professional Civil Engineering License
- 2-5 years of experience related to hydroelectric power plant maintenance including emphasis on dam safety
- Prior experience working with the Federal Energy Regulatory Commission (FERC) is preferable
- Must be a self-starter and able to manage a heavy workload without day-to-day oversight
- Must possess detailed knowledge of the hydroelectric power generation industry
- Proven experience in achieving continuous improvement through project management
- Excellent verbal and written communication skills
- Ability to interpret legal documents and agreements
- Up 30% travel maybe required depending on location
- Ability to comfortably transverse steep, uneven slopes of dams, some of which may exceed 100 feet
- Enter confined spaces, such as galleries
- Demonstrated knowledge of Microsoft Word, Project, Excel, and Power Point
- Valid State Driver's License

## **About Central Rivers Power**

Central Rivers Power owns and operates 45 hydroelectric power plants with a combined installed capacity of 340 MW throughout the United States. The current facilities are located in New Hampshire, Vermont, Massachusetts, New York, Pennsylvania, West Virginia, Virginia, North Carolina, South Carolina, Idaho, Washington, and California. Central Rivers provides reliable, low-carbon energy to the regional power grid.



# Central Rivers Power

## Lawrence MA - Hydro Technician Job Description

Type: Full-time  
Status: Non-Exempt

### About Central Rivers Power

Central Rivers Power owns and operates 45 hydroelectric power plants with a combined installed capacity of 260 MW throughout the United States. The facilities are located in New Hampshire, Vermont, Massachusetts, New York, Pennsylvania, West Virginia, North Carolina, South Carolina, Idaho, Washington, and California. Central Rivers provides reliable, low-carbon energy to the regional power grid.

### Responsibilities

- Serve as a local leader in working safely and within all local, state federal and company guidelines
- Work with Site Supervisors to coordinate, track and manage mechanical maintenance activities performed by third party providers
- Lead troubleshooting and evaluation of mechanical equipment for assigned region
- In coordination with the Site Supervisors and Operations Manager, participate in project planning, ensuring access to the necessary plant level information and site conditions to others
- Perform onsite work and local project management, in the implementation of Routine and Reoccurring Maintenance, Major Repairs and Capex for Electrical, Mechanical and Civil Activities
- Assist in evaluating equipment failures for methods or procedures to prevent reoccurrence
- Support in the budgeting process by maintaining awareness of budget and expenditures and use this information as a factor in decision making processes
- Provide support for operations as required by Site Supervisor, including but not limited to the monitoring of hydroelectric power plant equipment operation and performance, Start, Adjust, and Stop generating units, operating valves, gates, or auxiliary equipment in hydroelectric power generating plants
- Interface with Site Supervisor, and support groups for the creation and the implementation of the yearly and 5-year maintenance plans
- Interface with support groups for any issue relevant to plant performance or Dam Safety to include inspections and the implementation of any action and or repair plan
- Position reports to the Site Supervisor



# Central Rivers Power

## Skills and Qualifications

- Ability to prioritize workload to meet deadlines
- Strong attention to detail
- Excellent communications, interpersonal, and organizational skills required
- Knowledge in Mechanical theory and troubleshooting techniques
- Ability to use mechanical testing and measuring equipment, such as gauges, dial indicators, calipers, micrometers
- Ability to read and understand electrical, mechanical, hydraulic, and civil drawings, for the use of troubleshooting and equipment isolation
- Ability to work as part of a team and involve others in decisions when appropriate
- Ability to take initiative in problem solving
- Ability to manage projects including personnel and resources

## Requirements

- Associates degree in Electrical or Mechanical Technology preferred
- 2-5 years relevant experience preferred
- Power plant operations experience is a plus
- Strong Mechanical aptitude
- Electrical and Instrumentation skills preferred
- Ability to work in adverse conditions using the appropriate PPE
- Willingness to work overtime when required
- Working knowledge of computer programs such as Microsoft Office Suite
- Ability to utilize mobile application on phones and tablets in the field for documentation of work
- Must be able to travel as needed up to 90% throughout portfolio

## Physical Requirements

Work environment characteristics described herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. While performing the duties of the position, the employee is exposed to outdoor weather conditions prevalent at the time. This could include, working in extreme heat or extreme cold conditions.

Equipment: Hand tools, Power tools; Safety equipment including but not limited to; hard hat, safety glasses, work uniform, fall protection, life jacket, flash suits, insulated gloves, leather gloves, safety-toed boots, push-in ear protection, and cold weather gear.