

ESS Controls Engineer

Location: Heathrow, FL / Hybrid / Remote

About Prevalon

Prevalon Energy LLC (Prevalon), a Mitsubishi Power Americas and EES joint venture, is a leading global energy storage technology and services company that is empowering companies to deploy flexible energy solutions and accelerate a more sustainable energy future.

With 10 years of global battery energy storage experience and over 3 GWh of utility-scale battery energy storage projects deployed, Prevalon develops an end-to-end integrated battery energy storage solution that delivers throughout the entire lifecycle of your project and ensures performance.

Working with our customers to develop a solution to meet the demands of their energy system today and into the future, we are grounded by the principles of commitment, reliability and expertise to guide our decision making, design philosophy, and relationship building.

Our Culture and Values

Responsibility

Safety is at the core of everything we do. From the well-being and health of people to the quality of the products we develop and implement, sustainability is the foundation of our operations. Our expertise guides our decision-making and design development, and lives at the core of our mission.

Community

People are the focus and heartbeat of what we do. We prioritize the well-being of our customers, employees, and communities we work with. Through teamwork, collaboration, and open communication, we work together to continuously innovate.

Innovation

We value and encourage creativity in the ways we work and are always forward thinking. We embrace diversity of thought and adapt to emerging trends and technologies. We recognize the importance of respecting traditions but not beholden by them.

Accountability

We are focused on taking responsibility and ownership for our actions and decisions. We deliver on promises in a transparent and reliable manner. We are accountable in our commitment to sustainable practices and products.

Job Description

Prevalon Energy, LLC delivers an end-to-end battery energy storage integration solution that is flexible to project needs with a robust cybersecurity system development framework, intelligent control systems and complete project lifecycle support to meet demands energy storage systems. Safety is at the core of everything we do. From the well-being and health of people to the quality of the products we develop and implement, sustainability is the foundation of our operations. Our expertise guides our decision-making and design development, and lives at the core of our mission.

The ESS Controls Engineer reports to the EMS Team Product Manager and will be responsible for designing, developing, configuring, and programming the Prevalon Energy Management System (PEMS) for energy storage systems (ESS). This includes working with internal and external stakeholders to understand and refine the implementation of the control and supervisory layers with the PEMS platform. It is essential that decisions will be made to ensure safety, quality, reliability, and maintainability of such implementations. Provide expertise and support to services, project execution, and application engineering team. Develop and deploy product and application documentation and assist in the benchmarking and evaluation of new technologies, solutions, or suppliers for integration into our offering. This position will specifically focus on Utility scale energy storage solutions with the integration of batteries, inverters, and balance of plant equipment required in a battery power plant.

Key Responsibilities Include:

- Develop and implement IEC 61131-3 structured text control logic, SCADA data server/client maps, Ignition Perspective configurations, and other development tasks required for the ongoing development and deployment of the EMS platform.
- Interpret and refine product and project requirements and design, engineer, and materialize them in the SCADA and EMS platform.
- Develop and maintain design, solution, and component specifications that are part of the SCADA and EMS platform as well as support the Operations Team in their experience in using the product.
- Envision and develop new features and solutions in the SCADA and EMS platform.
- Support in the resolution of installation, commissioning, and operational issues.
- Develop specifications for testing and validation of the EMS integration at battery power plants.
- Improve processes and procedures used in product development.
- Review/coordinate design and other technical information from suppliers and contractors.
- Maintain knowledge of applicable codes, standards, certifications, and applications in the Energy Storage industry.
- Network Administration including VMware (8.0) management, Windows Server (2022 Edition) Administration, Identity and Access Management IAM)
- Perform system backup and recovery procedures and perform asset manager duties.
- Assist production support team in controls and SCADA related issues that arise.

Other Duties and Responsibilities:

- Ability to travel up to 35% of the time, including international travel, to deploy and commission the EMS Platform. Expect the remainder to be remote work.
- Communicate effectively with staff and management at all levels.

- Always maintain the highest degree of honesty and integrity. Lead proactive team efforts to achieve departmental and company goals.
- Ability to work under time pressure and adapt to changing requirements with a positive attitude.
- Protect confidential information by not communicating, disclosing to, or using it for benefit of 3rd parties. Intellectual Property protection of the EMS Platform is of utmost importance.
- Comply with all EHS policies, practices and procedures reporting all unsafe activities to Management and/or Human Resources.
- Work in the global environment to maintain standards and latest practices.
- Ability to work closely with and influence cross-functional teams.
- Good project management skills to lead initiatives to completion.
- Highly competitive, self-starter that can work both individually and in a group setting.
- Ability to work flexible hours and be independent in the field.

Qualifications:

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Education and/or Experience: A bachelor's degree in electrical or computer engineering with a minimum of two (2) years of related experience in the field. Experience with Renewables projects involving Battery Energy Storage Systems is considered an asset. Experience with reading and understanding project drawings, equipment installation, system start-up and commissioning procedures, and technical documents.
- Expertise to engineer 10MW+ SCADA/Controls for power generation or substations.
- AcSELeRator RTAC Programming in IEC 61131 PLC programming language.
- Induction Automation Ignition Platform experience, specifically gateway python programming and Perspective HMI buildouts.
- Knowledge of configuring VMWare 8.0, Windows Server 2022, Microsoft Azure, Active Directory, Group Policies
- Firewall configuration experience, specifically Fortinet's FortiGate product line.
- Good understanding of battery systems, inverters, controllers/SCADA, transformers, and general power flow concepts.
- CompTIA Security+ certification or equivalent (NERC CIP knowledge is a plus)
- Experience with Energy Management System and SCADA design/implementation including communication network architecture, protocols, and cyber security requirements for industrial control systems.
- Reasoning Ability: Able to define problems, collect data, establish facts, and draw valid conclusions. Able to interpret an extensive variety of technical instructions, read and understand network, mechanical and electrical drawings.
- Technology Skills: SCADA HMI user experience, proficient in MS Office Excel, Windows RDP, Citrix, Azure Cloud, AcSELeRator RTAC, Ignition, Python, layer 2 & 3 managed network switches, firewall policies and routing configuration, network subnets, VLAN Tagging, Fiber network technology, RTU & TCP MODBUS, OPC-UA, MQTT, P2P, SEL FMP, DNP3.0, OSI-SOFT PI.

Physical Demands and Work Environment:

The physical demands and 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.

Regularly required to stand and walk. Frequently lift and/or move up to 25 pounds. Occasionally lift and/or move up to 50 pounds. The noise level in the work environment is usually moderate to loud. Hearing protection may be recommended and/or required in some work locations.

Our Lake Mary, FL office is conveniently located near Orlando International Airport (MCO), modern floor plan with a Diagnostics Operations Center (DOC) and SCADA provisioning room embedded in the design. This role would be either Remote or Hybrid (2-3 days a week) in the office, depending on the situation.