

Summary

The System Control Operations Engineer performs reporting analysis of the power system to ensure security and reliability. This position provides direction for the Power Dispatchers on methods for dispatching the system more economically and efficiently. In addition, provides input and directs budget analysis, administers engineering service contracts and assists in the development of the company business plan.

Essential Functions

Evaluate impacts of planned and/or schedule maintenance activities on Generation (G), Transmission (T), and Distribution (D) systems. Advise on solutions to minimize impact.

Support, direct and assist Power Dispatcher staff to maintain security, integrity, and reliability of the power system.

Communicate with interconnected utilities to coordinate maintenance activities; ensuring security, integrity and reliability requirements are maintained within acceptable limits.

Responsible for maintaining system loading within industry and company standards through analysis. Able to direct Power Dispatcher staff to achieve and maintain these standards.

Coordinate with Engineering department on system planning projects to meet system operating objectives and projects in construction phase for effective and safe implementation.

Assists to minimize scope and duration of outages (scheduled or unscheduled) and provide technical support on systems for outage management.

Develop, outline, and propose new methods to operate the power system more effectively and economically.

Prepare technical reports to summarize system disturbances, economic cost/benefit analysis and detailing more efficient operating methods.

Review operating data and compare to projected values to evaluate accuracy of projections.

Communicates improvements in system reliability for inclusion in the Associations long range plan and five-year work plan.

Utilize and maintain power flow analysis models to analyze operational scenarios and evaluate system disturbances.

Coordinate G&T outage scheduling among Railbelt Utilities to maintain system reliability and ensure optimum scheduling of system resources.

Develop test scenarios for real-time equipment testing and modeling withing the reliability and operating constraints of the power system.

Manage the power system simulator to reflect the Railbelt and assist in training Power Dispatchers to respond to various emergency situations.

Ability to be delegate for the Supervisor, System Operations during system disturbances or outages.

Monitor progress of assigned studies and projects for on-time completion and within budget.

Perform analysis of G&T system maintenance activities and impacts to security, integrity and reliability. Resolves analysis that falls outside of acceptable threshold.

Coordinate with Engineering to optimize propose or planned projects from operational perspective.

Participate in development of departmental work plan and budget.

Develop and maintain alarm limit values/settings in all systems for operational parameters.

Other duties as assigned.

Relationships

Internal

VP, G&T System Control: Report to; seek advice and receive direction from; prepares reports for; exchange information as required.

Supervisor System Operations: Coordinate and consult with; provide technical assistance to, and receive technical assistance from, regarding system operations

Plant Managers: Coordinate and consult with; provide technical assistance to and receives from, regarding scheduling of maintenance activities

Manager, Substation Operations: Coordinate and consult with, provide technical assistance to and receive from regarding system disturbance analysis and protection issues.

Sr. Manager, Substation: Coordinate and consult with, provide technical assistance to and receive from regarding system disturbance analysis and protection issues.

Manager, Relay & System Protection: Coordinates and consults with; provides technical assistance to and receives technical assistance from, regarding system disturbances analysis and protection issues.

Power Dispatchers: Support, direct, assist and consult with; provides technical assistance to, and receives technical assistance from, regarding system operational decisions.

System Protection Engineer: Regularly works with to analyze system disturbances and coordinate protection for system circuits.

Planning Engineers: Works with to develop and implement Long Range and Construction Work Plan projects.

External

Bargaining Unit Representatives

Members of various Railbelt utility committees: Serves on as requested and assists as directed in the analysis of various interconnected system issues.

Other Railbelt Utilities: Coordination of data exchange for system and event analysis.

Vendors: Works with vendors in the maintenance and upgrading of various system modeling tools.

Engineering consulting firms: Directs and administers contracts; consults with relative to various Association projects; consults with relative to various projects outside Chugach.

Competencies

Must have a working knowledge of the operation, construction and protection of utility systems.

Must have a thorough understanding of Chugach distribution system, power system operations and power system modeling.

Must have experience with power flow simulation programs.

Experience with power system dynamic and stability modeling programs preferable.

Must be familiar with applied system protection principles and analysis of faulted power systems.

Must be able to analyze power system problems.

Supervisory Responsibility

This position does not have any supervisory responsibilities. Ability to direct designated department support technicians, Power Dispatchers and CAD/GIS personnel as needed.

Work Environment

Most work is performed in an office/ Power Control Center environment. Occasional travel is required. Frequent field assignments may be required. This position is 24-hour on-call estimated six (6) months of the year.

Minimum Qualifications and Experience

Education

Bachelor's degree in Electrical Engineering is required. Additional specialized training in power system modeling and analysis, protective relaying, system protection fundamentals and SCADA (supervisory control and data acquisition) systems; preferred.

Experience

Five (5) years' experience of progressively responsible engineering operations, planning or design experience. Some experience in power control and system operations. Experience working in a union environment preferred. a