



JOB DESCRIPTION

TITLE: MANAGER of SYSTEM ENGINEERING, PLANNING & DESIGN (REV 06_2021)

REPORTING RELATIONSHIPS:

Reports to: CEO

Supervises: EIT, Staking Technicians, Purchasing & Warehousing

Directs: Various outside professionals such as lawyers, consultants, surveyors, right of way agents, construction inspectors, and real estate appraisers, as well as outside contractors associated with the Cooperative's projects and initiatives

OBJECTIVES:

- To actively participate as a member of the management team where decisions and plans will be developed to ensure the Cooperative's strategies, goals, and objectives are accomplished. To ensure all the operational engineering management functions are represented as a member of the Management Team.
- To provide for the planning and engineering design of all electrical facilities required to meet the needs of the Cooperative for orderly future system growth and any additions or modifications to existing Cooperative electrical delivery systems where required.
- To direct, plan, and coordinate the planning, design, and construction management of the Cooperative's substation and transmission facilities.
- To direct the orderly transfer of designed facilities to the construction and operations phase of system improvements and/or system additions.
- To ensure that the department's engineering requirements are considered in the planning, design, and implementation of the Cooperative's mobile field services initiative.
- To ensure that all matters related to environmental issues, such as Electric Magnetic Fields (EMF), Erosion & Sedimentation (E&S) controls, and other Borrower's Environmental Report (BER) issues are considered in the design and operation of all Cooperative facilities.
- To ensure that the Cooperative is provided with proper technical expertise in the areas of relaying, protection, testing, troubleshooting, construction and power quality, at both the transmission and distribution levels.
- To ensure that the appropriate engineering studies, such as Long-Range Plan, 4-Year Construction Work Plan, and Power Requirement Study, are conducted in compliance with regulatory guidelines.
- To ensure that very high customer service standards are set for and obtained by those areas under direct control.
- To direct, develop and assist other departments as appropriate in the preparation of revenue budgets, cost of power budgets, the T&D Capital budget and financial forecast.
- To actively participate as a member of the Information Technology Team (IT) in developing and defining a long-range IT plan for the Cooperative which aligns the Cooperative's business drivers and critical success factors with the Cooperative's IT decisions.

- To assist in setting and carrying out the overall goals and objectives of the department and the Cooperative to ensure that the Cooperative's Key Performance Indicators will be met or exceeded.
- To ensure system maps and GIS Services are updated with accurate and current data.
- To provide technical leadership and support to overall operations consistent with Cooperative principals, bylaws and policies
- Provide Program Management on various assigned projects.
- To lead and educate staff of various technologies, systems and programs and initiatives, including identification and support for associated staff roles.
- To investigate, pursue and secure external funding in areas consistent with the Cooperative's long-term business strategy and interests.
- To provide general technical support for day-to-day operation of the plant including providing problem-solving, technical leadership and implementation/resolution of solutions
- To represent the Cooperative at external industry forums, technical presentations and program reviews as necessary
- To provide support (and represent as required) the CEO/General Manager to staff, directors and external business partners.
- To keep track of and communicate overall technology trends and applications in the industry and make investment recommendations to the General Manager.

DUTIES & RESPONSIBILITIES:

- Directs, assists, and is responsible for the preparation of the Cooperative's 4-Year Construction Work Plan and the long-range plan, which forecasts the physical electrical asset requirements 20 to 25 years into the future.
- Directs and is responsible for the preparation of the Environmental Report (ER) as required for new construction activities.
- Directs and is responsible for preparing annual list of maintenance, refurbishment and testing for special equipment (breakers, reclosers, capacitors, sectionalizers & meters)
- Reviews and recommends to the CEO for approval the Cooperative's power requirements study. This study provides a forecast of the Cooperative's consumer growth, kWh sales and purchases, and kW demand 15 years into the future.
- Directs and develops the Coop's T&D Capital Budget, revenue and costs of power budgets as well as on the financial forecasts cost of power studies, and rate cases and directs and is responsible for the preparation of the annual department capital and operations budgets for the areas assigned.
- Directs and is responsible for the Work Plan Management Team.
- Assists in the development of the Cooperative's long-range IT plan through active participation on the IT Planning Team.
- Directs the preparation for labor and material associated with the system additions and/or modifications in order to meet the scheduled requirements of the approved work plans for system improvements and expansions.

- Performs annual IR inspections of system elements.
- Reviews all applicable national, state and local regulations such as NESC, RUS guidelines and the NEC to ensure that the Cooperative's engineering designs meet codes and prudent engineering practices.
- Responsible for the interconnections and contractual obligations of all generators connecting to the Cooperative's electrical system.
- Responsible for managing coordinating and implementing Demand Response Programs.
- Responsible for developing equipment and material standards use for line and substation construction.
- Develops and implements along with other management members, the operational plan required to accomplish the Cooperative's goals and objectives.
- Reviews periodically the functions and activities of the System Planning and Design Department and makes recommendations to the CEO the organization structure necessary to meet system objectives and requirements.
- Develops and stimulates morale and motivates team spirit and enthusiasm throughout the department by appropriate delegations, recognition of accomplishment, counseling, and advancement according to merit, interest and ability; evaluates employee attitudes on organization goals.
- In addition to providing in-house engineering expertise, direction, guidelines, and support as qualified, determine the need for the negotiations with outside consultants, contractors and equipment suppliers relative to substation, transmission and relaying requirements.
- Supervise and manage direct-report employees to include developing adequate job descriptions, appraisals and professional development and training plans, recommendation wage adjustments and participating in the hiring and termination processes.
- Responsible for making certain those employees who answer directly to this position are fully knowledgeable of DCEC safety rules and strongly encourage compliance. In addition, takes an active role to enforce DCEC safety rules, safety policies, and safety procedures.
- Must complete at least one (1) professional development activity annually.
- Actively participates as a member of the management team by representing departmental and Cooperative concerns while striving to positively position the Cooperative in a competitive marketplace.
- Provides, and is responsible for, the system planning for all transmission and distribution electrical system.
- Is responsible for the preparation of the Cooperative's annual Transmission and Distribution Capital, Cost of Power, and Revenue Budgets.
- Provides engineering and design assistance for transmission lines, substations, distribution, and other Cooperative facilities as required.
- Directs the preparation of required designs and schedules resources needed to meet Cooperative engineering requirements.
- Approves the need for purchasing supplies, tools, and general equipment items except transportation equipment for the System Planning and Design Department.

- Work jointly with the Key Accounts and Energy Services on more technical projects, more advanced issues concerning testing, maintenance and operations associated with the Cooperative's key account customers and electrical.
- Assists with issues concerning relaying, testing, design, and construction of the Cooperative's electrical system.
- Assists with issues concerning reliability, power quality, design, and construction of the Cooperative's electrical system.
- Attends and participates in National, Regional and State meetings as directed or required.
- Reviews the operations of the System Planning and Design Department to assure that all Cooperative policies, procedures, and safety rules are adhered to.
- Approves department purchase requests, invoices, timecards, travel, and other expenses as necessary.
- Advises and counsels personnel in System Planning and Design Department with respect to special items beyond their authority and makes the necessary decisions.
- Establishes operating procedures for successful operation of the System Engineering and Design Department.
- Establishes engineering designs and standards for successful and efficient operation of the electric plant and makes recommendations to the VP of Engineering & Operations.
- Directs the schedules and standards related to engineering activities and prioritizes departmental requirements.
- Responsible for engineering review and connection of generator interconnections including the Cooperative's Net Metering Customers.
- Responsible for initiating and authorizing sectionalizing studies to ensure proper system coordination and protective settings for the distribution and transmission plant is current.
- Assist in planning, coordinating, administering, annually updating and distributing the Cooperative's Load Curtailment Plan and Under frequency Response Plan.
- Analyzes system operational and service interruption data to recommend system improvement projects.
- Ensures that all Cooperative owned generator assets are properly maintained and operated in accordance with the provisions of the operational permits.
- Perform other duties as assigned.

RELATIONSHIPS:

Establishes and maintains the following contacts and relationships for the purpose of coordination and communication between departments:

Internal

- CEO: To review major projects and plans with respect to the electric system; to inform him of new developments; to obtain information, guidance and interpretations of policies; to obtain necessary approvals.
- CFO: To coordinate on all matters having to do with financing and accounting of system improvements, transmission and substations and to coordinate all data processing requirements

needed by Engineering Design Department. To provide technical advice and assistance in regulatory matters as well as power forecasts and information for rate making purposes as required.

- COO: To provide engineering expertise and support as required insuring higher levels of system reliability including providing technical advice and solutions to system issues as required. To coordinate the activities required of Field Engineering to carry out the design construction and other activities that involve both departments as well as provide technical advice and assistance, as necessary. To determine and relay all transmission and substation projects for completion and provide technical advice and assistance as required. To provide Engineering expertise as well as consultation and guidance to the Department as required.
- Communications Specialist: Provide technical advice and assistance in support of the Cooperative's marketing.
- IT Support Technician: To coordinate on matters concerning the IT requirements of the Cooperative in order to meet the Cooperative's goals and objectives.

External

- Members: To maintain courteous and cooperative relationships, which create goodwill, and assist them in electrical matters
- Attorneys: To develop, promote, and maintain professional and congenial relationships to ensure that Cooperative operations are conforming to all legal statutes.
- Consulting Engineers: To develop and promote relationships necessary to obtain help to perform design, relaying, and engineering studies as needed.
- County Administrators: To maintain an ongoing relationship with the various County Administrative staff to effectively carry out the business necessary to meet administrative requirements.
- Rural Utility Services (RUS): To maintain and promote an ongoing relationship with the General Field Representative to ensure that Cooperative follows all applicable RUS requirements.
- Power Suppliers: To maintain and promote cooperative working relationships; to coordinate and cooperate in design and permitting; to interchange information of mutual interest.
- State Corporation Commission: To maintain an ongoing relationship with the various Commission staffs to effectively carry out the business necessary to meet Commission requirements.
- Contractors: To develop and promote professional relationships that will result in Cooperative projects which follow their contract's terms and conditions and which are closed out on budget and on time.
- Public and Community: To actively participate in civic and community affairs and projects in such a manner as to bring improved public relations to the Cooperative; to seek every opportunity to obtain understanding, acceptance and support for the Cooperative's plans, programs, and objectives.
- Engineering Technical Societies: To actively participate in society meetings to keep abreast of technological advancements and support future development of the engineering profession.
- Utilities: To develop and maintain professional relationships and to exchange technical information.
- Landowners: Work with landowners on easements to obtain a mutual agreement.



EDUCATION:

Four (4) year Engineering Degree or equivalent with a Bachelor of Science in engineering.
Registration as a Professional Engineer in the state of New York preferred.
Must complete at least one (1) professional development activity annually.

EXPERIENCE:

Ten (10) years of progressively responsible utility engineering experience including related experience in electric power and basic maintenance procedures, supervisory responsibility and project management. Experience should include substation and transmission/distribution design, project management, RUS design, contractual requirements, SCADA, AMI, distributed automation, and relaying. Proficiency with NISC, AutoCAD, ERSI, ASPEN, PLS-CADD, RSCAD, PSCAD and MilSoft preferred.

JOB KNOWLEDGE:

Must have a general knowledge of electricity, electrical circuits, electrical apparatus, metering, transformer banks and the operations of a rural electric transmission and distribution cooperative. Requires familiarity with mobile radio systems, which includes the installation and removal of mobile radios and other associated equipment. Must be familiar with all aspects of design, scheduling, construction management, and relaying of facilities needed to meet the demands of the electrical system. Must have working knowledge of the National Electrical Safety Code, National Electrical Code, apparatus, metering, SCADA and Load Management equipment and AMR equipment. Must be familiar with work orders and closeouts procedures. Must possess basic computer skills, to include a working knowledge of Microsoft Office products, including, but not limited to: Outlook, Excel, Word and PowerPoint as required by job responsibilities.

ABILITIES AND SKILLS:

Must be able to provide leadership and supervision to departmental staff and cross-functional teams. Must have the ability to communicate with membership, public and other employees. Must be able to make design recommendations concerning the addition and upgrading of facilities to the cooperative's electric plant. Must be able to represent the Cooperative's interest in negotiations with equipment suppliers and interconnecting utilities. Must be able to supply technical advice on all related design matters to the Director, System Planning and Design. Ability to analyze and solve technical problems. Must support the Cooperative on all matters related to established Policies and Procedures. Perform other duties as assigned.

WORKING CONDITIONS:

Most of the work is performed in the DCEC office. Occasional field trips for inspection of facilities or meetings with members, power and equipment suppliers and consultants. Attendance of seminars and conferences several times a year may be required.
Subject to call at any time for emergencies.

REQUIRED TIME FOR FULL COMPETENCY:

Three years.