

**Minnesota Power  
Standards of Conduct  
Job Descriptions**

As required by Section 358.7(1), Exhibit J includes job titles and descriptions for the Transmission Function employees. The Transmission Function employees work within the Transmission and Power Delivery business unit, and there are no separate officers and directors of that business unit. None of the transmission employees are involved in sales.

[Exhibit J Transmission Function](#)

## Exhibit J Transmission Function

### Power Delivery & Transmission Job Descriptions



**STATEMENT OF JOB RESPONSIBILITIES**

**POSITION TITLE:** Manager – System Performance & Transmission Planning

**EEO Job Code:** B02 – Officials & Managers

**FLSA Status:** Exempt

**SOC Job:** Yes

**GENERAL PURPOSE:**

Provides leadership to ensure safe and reliable local and regional transmission grid operations and safe and reliable operation of Minnesota Power’s DC line. Identifies emerging business issues that affect MP Transmission and provides leadership in developing and advocating the MP response in the appropriate forums. Responsible for assuring the development and integration of strategic and operational plans which fulfill Minnesota Power (MP) business strategies and regulatory requirements relating to system operations and performance. Serves on multiple transmission committees that affect transmission operations ensuring MP interests are represented. Requires high degree of interpersonal skills to develop and sustain a highly productive work force and maintain key relationships.

**JOB OBJECTIVES:**

1. Leadership provided in an atmosphere of mutual respect and continuous improvement.
2. Communication of and support for company policies, goals and strategies.
3. Responsibility for financial performance and allocation of resources (budget, employees, material/equipment, etc.) within functional area.
4. Manages, coordinates and prioritizes multiple projects to ensure they are within budget, meet schedules/timelines and align with company strategy.
5. Acquires and evaluates information to achieve and communicate well reasoned conclusion(s) to complex issues.
6. Ensures safe and reliable operation of MP’s power delivery and transmission facilities to meet system load needs, meet applicable industry reliability and regulatory standards, and to operate as an integral part of the region’s electric power system.
7. Provides transmission outage coordination assuring that emergency and operating plans, policies and procedures are in place and up to date.
8. Oversight of training related to Power System operations, restoration, new equipment; to ensure operator certification and maintain NERC accreditation of training program.
9. Compliance with rules, regulations, policies, contracts (safety, environmental, labor, reliability, etc.).
10. Provide leadership and is a strong proponent of MP Operations Shared Purpose, Values and Future.

**WORKING RELATIONSHIPS:**

External: Customers, suppliers, industry organizations, power pool, other utilities, regulatory agencies, lawmakers.

Internal: All employees.

**HIRING GUIDELINES:**

**Education:**

Bachelor's degree in electrical engineering or equivalent. Must have a professional engineering license and be NERC certified. Advanced professional degree (MBA) highly desirable.

**Experience:**

Over 10 year's job related experience in the electric utility industry. Must have experience in the operation and performance of the region's electric power system and of working with the various regional and national entities that affect grid operations (for e.g. MRO, NERC, MISO, MAPP). Experience in DC line technology and operations highly desirable.

**Leadership Qualities:**

Able to demonstrate the following:

- Proven ability to create and articulate a vision, and obtain the desired results.
- Deals with others honestly, respectfully and with integrity.
- Ensures credit for success is spread throughout the company and takes personal responsibility for failures.
- Listens to new ideas and embraces new ways of doing things.
- Self-initiated ability to see things that others have not seen and thus lead followers in new directions.
- Clearly articulates expectations to obtain desired results.
- Energizes and creates future leaders.

**Special Requirements:**

This position may be subject to assessment of skills, job match and/or aptitude.




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## STATEMENT OF POSITION RESPONSIBILITIES

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**POSITION TITLE:**                    **ENGINEER SENIOR**

**EEO / Job Group:**                    B / 005 Senior Operations/Engineering/Safety Professionals

**FLSA Status:**                        Exempt

**SOC Job:**                                Yes

**GENERAL PURPOSE:**

Provides technical leadership and direction for engineering staff in area of expertise to assure application of sound engineering practices in a cost-effective manner to enhance customer operations, maintain reliability of systems and safety for MP employees and the public. Performs administrative work relating to projects and assignments; acts as staff advisor and technical consultant within and outside assigned department in area of expertise. Promotes positive change in Minnesota Power business strategy through achievement of customer specific objectives and technological innovation of practical and profitable nature, (i.e., stakeholders benefit). Requires high level of interpersonal skills to establish and maintain positive and productive working relationships.

**JOB OBJECTIVES:**

1. Technical leadership and direction for engineering technical staff including work assignments, training, performance monitoring, etc.
2. Assessment of technological innovation for applicability to improve efficiency of company/customer operations.
3. Development and maintenance of records, documents, and quality assurance quality control plans for legal and historical purposes.
4. Development and maintenance of credible working relationships with government agencies, consultants, contractors, general public, customers, etc.
5. Professional engineering and consulting services provided to customers.
6. Analysis of operating events to identify and recommend solutions to improve equipment and/or operating procedures.
7. Management of capital projects including estimates, budgets, schedules, material procurement, engineering documentation, coordination with involved departments, customers, utilities, etc.
8. Facilitation of activities/cross-functional groups formed to address opportunities based on technological change.

9. Compliance with applicable Minnesota Power, local, state, and federal rules, laws, regulations, and policies.

**WORKING RELATIONSHIPS:**

External: Vendors, consultants, customers, contractors, governmental agencies, general public

Internal: All levels of employees and management.

**HIRING GUIDELINES:**

**Education:**

Bachelor's degree in engineering, or equivalent

**Experience:**

Over ten years job-related experience.

**Certification:**

Professional Engineer license.

**Special Requirements:**

This position may be subject to assessment of skills, job match and/or aptitude.

**Engineer III**

**No Job Description**



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**STATEMENT OF POSITION RESPONSIBILITIES**

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**POSITION TITLE:** Engineer II

**EEO Job Code:** B01

**FLSA Status:** Exempt

**SOC Job:** Yes

**GENERAL PURPOSE:**

Provide engineering expertise, for both internal and external customers. Services include: project planning, development, design, evaluation, implementation, modification, and documentation; develop engineering standards balancing corporate and customer needs; research new technology for potential corporate application; serve as training resource in area of expertise. Strong interpersonal and communication skills required to establish and maintain positive working relationships.

**JOB OBJECTIVES:**

1. Studies reports for recommendations, feasibility, decision making, legal/regulatory.
2. Long term/short term plans (one-year/five-years) in place, updated, current.
3. Engineering cost estimates for budgets and project justification.
4. Engineering design meets requirements (customer needs, Company business needs, technically correct, environmental, cost effective).
5. Equipment/material meets requirements within cost constraints.
6. Projects proceed smoothly (schedule, costs).
7. Standards for design, material, operations in place, up-to-date.
8. Documentation for construction, operation, and maintenance.
9. Application of new, emerging technology
10. Cross-functional, technical support in area of expertise (training, mentoring).



**WORKING RELATIONSHIPS:**

External: Vendors, contractors, other utilities, customers, regulatory agencies.

Internal: All company departments.

**HIRING GUIDELINES:**

**Education:**

Bachelor's degree in engineering, preferably electrical, mechanical, civil, chemical or other utility-related area; power option for electrical and mechanical engineering graduates preferred.

**Experience:**

Over four years of related engineering experience.

**Certification:**

Professional Engineer license desirable, and may be required dependent on position responsibility.

**Special Requirements:**

This position may be subject to assessment of skills, job match and/or aptitude.



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## STATEMENT OF POSITION RESPONSIBILITIES

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**POSITION TITLE:** Engineer I

**EEO Job Code:** B01

**FLSA Status:** Exempt

**SOC Job:** Yes

**GENERAL PURPOSE:**

Provide technical support for project planning, development, implementation, and modification; contributes to engineering standards development balancing corporate and customer needs; research new technology for potential corporate application. Interpersonal and communication skills required to establish and maintain positive working relationships.

**JOB OBJECTIVES:**

1. Engineering standards meet company and customer needs and applicable codes in cost effective manner.
2. Feasibility, performance, and/or condition assessments.
3. Plans developed and maintained to meet company long-term goals and needs.
4. New technology identified and available for company utilization.
5. Engineering designs meet needs and standards in cost effective manner.
6. Systems operate to meet company and customer needs in cost effective manner.
7. Project management meets design, budget, and scheduling requirements.
8. Technical support provided to all departments regarding project development, implementation, maintenance, modification/improvement, and training.
9. Solutions to problems - short term, emergencies, "firefighting".
10. Cost controls - budget constraints and business goals met.

**WORKING RELATIONSHIPS:**

External: Vendors, contractors, other utilities, customers, regulatory agencies.

Internal: All company departments.

**HIRING GUIDELINES:**

**Education:**

Bachelor's degree in engineering, preferably electrical, mechanical, civil, chemical or other utility-related area; power option for electrical and mechanical engineering graduates preferred.

**Experience:**

No experience required; utility engineering intern experience desired.

**Special Requirements:**

This position may be subject to assessment of skills, job match and/or aptitude.



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## STATEMENT OF POSITION RESPONSIBILITIES

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**POSITION TITLE:** Supervisor, System Operations

**EEO Job Group:** C - 010 (Non-Union Technical Workers)

**FLSA Status:** Exempt

**Soc Job:** Yes

**GENERAL PURPOSE:**

Provides leadership, direction, and supervision of the operation of the Minnesota Power Transmission System and Balancing Area to maintain reliable, secure, electrical energy systems and continuous generation/load balance. Coordinates the training requirements and prepares work schedules for the MP System Operators. Meets customer needs and Company economic requirements thru coordination with other departments, outside organizations, and customers. Directs MP System Operators in the performance of their job duties. Assures that Balancing Area load forecasts and generation needs are met. Assures that departmental and field personnel are fully trained and qualified to operate designated systems. Requires high level of interpersonal skills to establish and maintain positive and productive working relationships.

**JOB OBJECTIVES:**

1. Direction of MP's Transmission System within safety, reliability, operating, economic and regulatory guidelines (NERC, FERC, MRO, OSHA, MP, MPUC, MISO etc.).
2. Development and maintenance of emergency and operating policies and procedures, including system restoration, clearance/commissioning procedures, and switching procedures.
3. Responsible for maintaining the "Minnesota Power Substation Operation and Switching Procedures" manual, including updates and modifications necessary to ensure the safety of personnel and the reliability of the MP transmission system.
4. Responsible for the development of all control area load forecasts (24 hrs – 180 days).
5. Leadership, continuity and guidance for ongoing day to day activities provided to various functions in performance of their job duties.
6. Shift personnel schedules provide adequate work coverage, training, and development.
7. Maintains awareness of current MAPP/NERC/FERC requirements.
8. Information shared among all other appropriate areas to provide common focus.

9. Maintain system reliability and ensure efficient operation of the MP Transmission system and Balancing Area to meet MP strategic objectives.
10. Provide for qualified switchman training classes and maintenance of MP, GRE, and Contractor qualified switchmen listings.

**WORKING RELATIONSHIPS:**

**External:** Large power customers, large light and power customers, other utility control centers, Midwest Reliability Organization, Midwest ISO, NERC, law enforcement, other emergency service providers, all industrial and commercial customers, Power Marketers, professional associations, industry educational groups, vendors

**Internal:** Electric Utility Operations personnel, Energy Supply and Asset Optimization, Telecommunications, Strategic Accounts, Environmental Services, Corporate Relations, Customer Services, Service Dispatch, Line Department, Distribution Operations, Tech Systems, System Performance.

**HIRING GUIDELINES:**

**Education:**

Bachelors degree in power technology, electrical power operations or equivalent, plus additional training specific to department requirements (such as successful completion of Minnesota Power System Operator Training Program, graphics & configuration, simulator software/hardware, Experience with energy scheduling, Strategic Accounts, generation and control area operations).

**Experience:**

Over eight years job-related experience.

**Special Requirements:**

Must obtain and maintain NERC System Operator certification.




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## STATEMENT OF JOB RESPONSIBILITIES

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**POSITION TITLE:** Shift Supervisor, System Operations

**EEO Job Code:** Technicians / 003 Technical Supervision

**FLSA Status:** Exempt

**SOC Job:** Yes

### **GENERAL PURPOSE:**

Supervises and operates the Minnesota Power Transmission, Distribution, Generation and Control Area systems to maintain a reliable Bulk Electric System. Provides leadership for assigned shift and System Operations. Has the authority and is responsible for directing the work of System Operators on shift and completing their performance reviews. Provides input and is directly involved in any decisions regarding hiring/firing and disciplinary actions.. In conjunction with the Trainer, ensures that Operators are meeting their required training. Supervise and coordinate electric operations with the Midwest Independent System Operator and other interconnected systems. Directs field and plant personnel in performance of their functions as it relates to the Bulk Electric and Distribution Systems. Directs and coordinates real-time activities with various departments within Minnesota Power to meet safety, reliability, economic and strategic goals and objectives. Requires strong interpersonal skills to establish and maintain positive working relationships inside and outside the Company.

### **JOB OBJECTIVES:**

1. Restoration of the system to steady state and first contingency operation (switching orders, remote operation).
2. Economic and efficient operation of Transmission, Distribution, Generation systems and MP control Area to meet company strategic objectives, enhance revenue and actively market transmission resources.
3. Safe operation of Transmission and Distribution System (personnel, equipment).
4. Supervision and leadership provided to System Operators on assigned shift to maintain a reliable Bulk Electric System.
5. Provides leadership and direction to employees, contractors, other utilities and customers in equipment and operation and system security.
6. Reliability and security of Transmission, Distribution and interconnected systems established, maintained and coordinated with MISO, MRO and other utilities.
7. Technical expertise in power system operations kept current; keeps abreast of system and industry changes.
8. Internal/external customer needs are addressed by providing current operating information, assistance and follow through as appropriate.
9. Current and accurate records, files and documentation are maintained for legal, safety and historical purposes.
10. Supervision and operation of power system and MP Control Area within safety, reliability, operating, regulatory guidelines (NERC, FERC, MISO, MRO, OSHA, MP, MPUC, etc.)
11. Serves as emergency response coordinator to ensure that appropriate authorities (2911, 911, MN Duty Officer, Sheriff, etc) are dispatched in a timely manner.

12. Active involvement and support of management decisions through department meetings, special projects, communication and support.

**WORKING RELATIONSHIPS:**

External: Large power customers, large light and power customers, other utility control centers, Midwest Reliability Organization regional control center, law enforcement and other emergency service providers, NERC, all industrial and commercial customers, Power Marketers.

Internal: All departments.

**HIRING GUIDELINES:**

**Education:**

Completion of System Operator Progression. Bachelor's degree desirable.

**Experience:**

Four or more years of experience as a System Operator or equivalent including considerable leadership experience.

**Special Requirements:**

Must pass color perception testing.

Must obtain and maintain NERC System Operator certification.

This position requires rotating shifts and working weekends.

This position may be subject to assessment of skills, job match and/or aptitude.

Must be able to report to the work site within 30 minutes of call-in.



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## STATEMENT OF POSITION RESPONSIBILITIES

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**POSITION TITLE:** Power System Coordinator

**EEO Job Code:** Technicians / 010 NonUnion Technical Workers

**FLSA Status:** Exempt

**SOC Job:** Yes

**GENERAL PURPOSE:**

Coordinates certain system operating activities to ensure reliability, safety and compliance with NERC standards. Under general direction, reviews, coordinates and schedules clearance requests from various departments and other utilities. Advises and assists operators in applying correct procedures to optimize system security, personnel safety and efficiency. Develops operating guides in conjunction with System Performance engineers. Accuracy of performance is required to avoid injury or death to personnel, blackouts, major economic losses and adverse public relations. Provides liaison function between operations and engineering. May be required to fill in as a System Operator.

**JOB OBJECTIVES:**

1. All construction and maintenance on Minnesota Power transmission facilities are economically scheduled and in accordance with Midwest ISO timing requirements.
2. All construction and maintenance work on MP transmission facilities is coordinated with generators, other utilities and Major customers.
3. Boundaries of equipment clearances are correctly defined and special considerations during switching are identified.
4. Real time transmission problems are resolved by providing real time guidance to the power system operators and acting as a liaison to the System Performance engineers.
5. Switching, commissioning and testing procedures are available for construction projects and result in safety of workers and security of the power system. System operators are trained on new equipment.
6. Effective operating guidelines in compliance with NERC and MISO standards that ensure security of the power system are implemented during changing system conditions.
7. Transmission and substation engineering designs take into account operational requirements.
8. Serves as single point of contact for system operating issues with major customers of Key Account Representatives.
9. Power system emergencies are effectively handled to minimize operating problems.



**WORKING RELATIONSHIPS:**

Frequent contact with those inside and outside the company to affect actions taken by others to explain and install switching and operating procedures to share information and reach a satisfactory course of action.

**Internal:** Generation, Engineering, System Performance and Relay, Tech Systems, Distribution, System Telecommunications, Marketing

**External:** Industrial customers, MISO, Municipals, Power Cooperatives, other utilities, MRO, U.S. Weather Bureau personnel.

**HIRING STANDARDS:**

**Education:**

High School or equivalent plus additional training in power system operations including the Minnesota Power System Operator Training Program. Must be NERC certified.

**Experience:**

Over six years experience in power system operation. Engineering experience desirable.

**Special Requirements:**

This position may be subject to assessment of skills, job match and/or aptitude.



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## STATEMENT OF POSITION RESPONSIBILITIES

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**POSITION TITLE:** Daily Outage Coordinator

**EEO Job Code:** C/010 Non-Union Technical Workers

**FLSA Status:** Exempt

**SOC Job:** Yes

**GENERAL PURPOSE:**

Coordinate power system operating activities, including switching, field crews, and equipment outages, to ensure reliability, safety and compliance with NERC standards. Under the direction of the Power System Coordinator, reviews, coordinates and schedules clearance requests from various departments and other utilities, with primary responsibility for distribution outage coordination. Advises and assists operators in applying correct procedures to optimize system security, personnel safety and efficiency. Develops operating guides in conjunction with the Power System Coordinator, System Operations staff, Distribution engineering and System Performance engineers. Accuracy of performance is required to safely execute field operations and maintain system reliability. Provide liaison function between operations and engineering.

**JOB OBJECTIVES:**

1. All construction and maintenance of Minnesota Power transmission facilities are economically scheduled, coordinated, and in accordance with Midwest ISO timing requirements
2. Boundaries of equipment clearances are correctly defined and special considerations during switching identified.
3. Responsible for developing preliminary switching orders developed to ensure a safe working environment for personnel and equipment.
4. Daily coordination studies for real time operation support of switching sequences and emergency events.
5. Switching, commissioning and testing procedures are available for construction projects ensuring safety of workers and security of the power system.
6. Transmission and substation engineering designs take into account operational requirements for safe, economical and reliable operation.
7. Outage Management System support including assigning and maintaining the identifiers required for all switching devices to ensure the uniqueness of each identifier.
8. Maintain System One Line diagrams and substation One Line diagrams to ensure they are accurate, current and communicated timely.
9. Ensure compliance to all applicable standards & requirements (NERC, FERC, MISO, MRO, OSHA, etc.).
10. Coordinates activities with Power System Coordinator and provides backup when necessary.

**WORKING RELATIONSHIPS:**

External: Neighboring utilities, customers, vendors, contractors, and consultants

Internal: System Operations, ITS Applications, Tech Systems, Power Delivery Engineering, Distribution Operations and System Performance

**HIRING STANDARDS:**

Education:

High School or equivalent plus additional training in power system operations. Must be NERC Certified.

Experience:

4 years System Operator experience, knowledge of EMS applications, AutoCAD experience preferred.



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## STATEMENT OF POSITION RESPONSIBILITIES

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**POSITION TITLE:**                    **Control Area Specialist**

**EEO Job Code:**                    C / Non-Union Technical Workers

**FLSA Status:**                    Non-Exempt

**SOC Job:**                    Yes

**GENERAL PURPOSE:**

Responsible for verifying all required OASIS tags and to ensure the corresponding schedule is assigned. Must input next day Marketing and Transmission energy schedules into EMS system accurately. Reliable and accurate Daily Customer Interruption reports are generated and distributed to internal departments and external parties (GRE). Must comply with North American Electric Reliability Council (NERC) policies and applicable regional council policies. Requires effective interpersonal skills to establish and maintain working relationships inside and outside the Company. The position is designed to provide training and experience to allow progression to Control Area Operator when needed.

**JOB OBJECTIVES:**

1. EMS system data reflects next day Marketing and Transmission energy schedules to ensure proper Control Area operations.
2. Provides support to the Control Area Operators and System Operators to meet safety, reliability, operating, economic and regulatory guidelines (FERC, MAPP, OSHA, etc.).
3. Updates MP OASIS system daily to ensure that availability and pricing information is accurate.
4. All required OASIS tags are verified and ensures corresponding schedule is assigned to comply with regulatory requirements.
5. Audits and corrects daily Mwh operating data prior to transmitting to data warehouse.
6. Emergency schedule transactions are reviewed and reconciled to ensure proper payment and billing.
7. Provides accurate Daily Customer Interruption Reports for internal departments and external parties (GRE).
8. Skills and knowledge in power systems operations are obtained and maintained; keeps abreast of system, power pool and industry changes.

**WORKING RELATIONSHIPS:**

External: Regional Coordination Center, other utilities, large power industrial and commercial customers, municipal, and wholesale customers, law enforcement and other emergency service providers, and Power Marketers.

Internal: Electric Utility Operations and engineering personnel, Telecommunications, Environmental Services, Corporate Relations, MPEX, Customer Services, and Accounting.

**HIRING GUIDELINES:**

**Education:**

Associate's degree: accounting, computer technology, electricity or equivalent.

**Experience:**

Two to four years of related utility experience in power marketing, power systems operations, electrical fundamentals, or energy accounting. Must possess good PC skills. Experience in Control Area Operations is desirable.

**Special Requirements:**

Must obtain and maintain NERC Control Area Operator certification in order to provide relief for the Control Area Operator as needed.

This position may require rotating shifts and working weekends.



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## STATEMENT OF JOB RESPONSIBILITIES

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**POSITION TITLE:** System Operator

**EEO Job Code:** Technicians/ 011 Computer/Systems Technicians

**FLSA Status:** Exempt

**SOC Job:** Yes

**GENERAL PURPOSE:**

Under general direction, operates the Minnesota Power Transmission, Distribution, Generation and MP Control Area Systems to maintain reliable, secure electrical energy systems, to meet customer needs and economic requirements, and to coordinate operations with interconnected systems. Directs and coordinates activities with service dispatch function. Requires interpersonal skills to establish and maintain positive working relationships inside and outside the Company.

**JOB OBJECTIVES:**

1. Transmission and Distribution System operated to provide for safety of plant and field personnel.
2. Economic and efficient operation of Transmission, Distribution, Generation systems and MP Control Area to meet company strategic objectives.
3. Operation of power system and MP Control Area within safety, reliability, operating, economic and regulatory guidelines (NERC, FERC, MISO, MRO, OHSA, MP, MPUC, etc.).
4. Internal/external customer needs are addressed by providing current operating information, assistance and follow through as appropriate.
5. Transmission, Control Area and Distribution Systems restored to steady state and first contingency operation (switching orders, remote operation).
6. Equipment isolated for testing, maintenance, new installation (switching orders, remote operations).
7. All activities and changing system conditions documented for legal, safety and historical purposes.
8. Awareness of system conditions maintained to respond to contingencies, anomalies, deviation, abnormal conditions (monitoring alarms).
9. Reliability and security of Transmission, Distribution, and interconnected systems established, maintained and coordinated with MISO, MRO and other utilities.
10. Technical expertise in power system operations kept current; keeping abreast of system and industry changes.

**WORKING RELATIONSHIPS:**

External: Midwest Independent System Operator, Large power customers, large light and power customers, other utility control centers, Midwest Reliability Organization regional control center, law enforcement and other emergency service providers, NERC, all industrial and commercial customers, Power Marketers.

Internal: All departments

**HIRING GUIDELINES:**

**Education:**

Associate's degree or equivalent for operators beginning the four (4) year progression.

**Experience:**

Completion of four (4) year System Operator Progression.

**Special Requirements:**

Must meet existing norms in System Operator/Power Dispatcher test battery.

Must pass color perception testing.

Must obtain and maintain NERC System Operator certification.

This position requires rotating shifts and working weekends.

This position may be subject to assessment of skills, job match and/or aptitude.

Must be able to report to the work site within 30 minutes of call-in.



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## STATEMENT OF POSITION RESPONSIBILITIES

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**POSITION TITLE:**                    **SCADA SYSTEMS ANALYST II**

**EEO Job Code:**                    Finance/Administrative Professionals

**FLSA Status:**                    Exempt

**SOC Job:**                    Yes

**GENERAL PURPOSE:**

Provides moderately complex analysis and maintains SCADA system functionality to support and/or enhance system platforms under moderate guidance. Facilitates system modifications, as well as investigating design approaches. Ensures the integrity of data and performs duties with a high level of accuracy to ensure safe and reliable operation of the MP electrical system. Serves as a liaison to operations, engineering, and field technicians in facilitating EMS updates. Provides compliance support for MRO documentation. Analyzes possible solutions using standard procedures and solves a range of straightforward problems. Assures that all work meets company, industry and regulatory standards. Requires good communication skills to maintain positive working relationships.

**JOB OBJECTIVES:**

1. Ensure SCADA system functionality including systems integration, programming, and support to maintain and/or enhance complex system platforms.
2. Assist in facilitating system testing, installation, and modifications, making effective use of available time and/or resources.
3. Assist in investigating the feasibility of alternate system/program design approaches to determine solutions to best satisfy immediate and long-term internal and external customer needs.
4. Design and create SCADA system points for the EMS monitoring and controlling of bulk electric and distribution system components.
5. Research and evaluate requests for database feasibility and accuracy.
6. Provide real-time information from the RTU (Remote Terminal Unit) to the Control Center and ensure continuous functional availability of the SCADA/EMS system to monitor and control the electrical system.
7. Monitors, tests and repairs SCADA/EMS computer hardware and communications links to RTUs.



8. Design displays for EMS system control and critical information using AutoCAD (substation displays, alarms, status, and analog) and provide technical support to the control center by maintaining existing EMS displays.
9. Manage ODID naming to maintain communications between System Operations EMS and distribution OMS.
10. Assist in coordinating project schedules to ensure timely completion of work.
11. Identify, diagnose, and solve point based problems.
12. Serve as a resource to facilitate effective/efficient utilization of equipment/systems.

**KEY TASKS AND ACTIVITIES** (The main task areas and associated principal activities):

(All items “x” are essential job functions have been deleted from this copy)

**WORKING RELATIONSHIPS:**

External: Neighboring utilities, customers, vendors, contractors, and consultants

Internal: System Operations and System Performance, ITS Applications, Tech Systems, and Power Delivery Engineering

**HIRING STANDARDS:**

Education:

- Bachelor’s degree in a related field; or an associate’s degree in a related field plus two additional years of utility experience beyond what is required in the “Experience” section below.
- Completion of EMS Display and Data Base Editing courses.

Experience:

- Over six years of related utility experience.

Special Requirements:

- Understanding of electrical theory, utility operation, electrical equipment and terminology is required.
- Knowledge of advanced EMS application software is required.
- Thorough knowledge of SCADA/RTU concepts, AutoCAD, SQL (Sequel Query Language) and relational database is required.



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## STATEMENT OF POSITION RESPONSIBILITIES

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**POSITION TITLE:** Training Administrator System Operations

**EEO Job Group:** C - 010 (Non-Union Technical Workers)

**FLSA Status:** Exempt

**Census Code:** 255

**SOC Job:** Yes

**GENERAL PURPOSE:**

Assures that departmental personnel are fully trained and qualified to operate designated systems. Training programs are developed, documented, implemented and maintained to meet demands of current and changing system conditions, regulations, and requirements; that applicable tests are developed and administered; and leadership is provided for operations training function. Provides guidance to various operations functions in performance of their job duties. Requires high level of interpersonal skills to establish and maintain positive and productive working relationships.

**JOB OBJECTIVES:**

1. Through leadership, training, and mentoring provide System Operations personnel with a coordinated training program to ensure reliable system operation.
2. Development, implementation, documentation and administration of a defined set of training objectives to meet NERC and Regional Reliability Organization standards, MP operating procedures, and applicable regulatory requirements.
3. Identification, scheduling and recording of specific training needs for individual operations personnel, other utilities and MP customers.
4. Operations personnel have knowledge to operate designated systems and equipment in accordance with all safety and environmental regulations and other requirements.
5. Provide for system simulation (DTS), NERC standards, emergency operations, and other training opportunities to allow operations personnel to maintain NERC certification requirements.
6. Supervision of other operations training personnel.
7. Administers qualified switchman training program to ensure switching personnel are able to safely perform system switching operations.
8. Leadership, continuity and guidance for ongoing day to day activities provided to functions in performance of their job duties.
9. Shift personnel schedules provide adequate work coverage, training, and development.

10. Keeps abreast of information and developments in emerging technologies, safety trends and training techniques. Maintains awareness of current MAPP/MISO/NERC/FERC requirements. Maintains involvement with regional training efforts to ensure operators are kept aware of new procedures and meet changing requirements.
11. Information shared among all other appropriate areas to provide common focus.
12. Coordinate system restoration drills, and provide regular BCC training exercises to ensure operator familiarization and capabilities during emergency events.

**WORKING RELATIONSHIPS:**

**External:** Midwest ISO, Midwest Reliability Organization regional control center, NERC, other utility control centers, law enforcement and other emergency service providers, large power customers, all industrial and commercial customers, Power Marketers, professional associations, industry educational groups, vendors

**Internal:** Electric Utility Operations personnel, Telecommunications, Environmental Services, Corporate Relations, MP Marketing, Energy Supply and Asset Optimization, Customer Services, Service Dispatch.

**HIRING GUIDELINES:**

**Education:**

Must be competent in both knowledge of system operations and instructional capabilities. Bachelors degree in power technology, electrical power operations or equivalent, plus additional training specific to department requirements (such as successful completion of Minnesota Power System Operator Training Program, graphics & configuration, simulator software/hardware, and training tools)

**Experience:**

Eight or more years experience as a System Operator.

**Special Requirements:**

Must possess and maintain NERC System Operator certification.



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## STATEMENT OF POSITION RESPONSIBILITIES

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**POSITION TITLE:** Trainer, System Operations

**REPORTS TO:** Training Administrator, System Operations

**EEO Job Code:** C03 - Technicians

**Eligible for Overtime:** No

**GENERAL PURPOSE:**

Performs a variety of activities relating to operations training including assuring properly trained and qualified system operators, documentation of training activities, development of new training activities to ensure compliance with applicable rules and regulations (Safety, NERC, MRO, Etc.). Coordinates Dispatcher Training Simulator exercises to meet MP training objectives and NERC requirements. Provides training to MP personnel involved in switching and tagging on the MP transmission system. Requires excellent interpersonal skills to develop and maintain productive working relationships. May fill in on shift as needed to provide continuity and training opportunities to operators.

**JOB OBJECTIVES:**

1. Assist with the development of training and testing programs for the System Operators to ensure skill levels remain adequate and up to date with current system conditions and requirements.
2. Keeps abreast of information and developments in emerging technologies, safety trends and training techniques. Maintains awareness of current MRO/MISO/NERC/FERC requirements.
3. All training records documented and maintained to comply with NERC requirements.
4. Strengths/weaknesses of System Operators identified and specific training targeted. Annual training plans developed for each operator.
5. Coordination, implementation, and running of Dispatcher Training Simulator scenarios to meet MP training objectives and NERC CEH simulation hours.
6. Fill in on shift when needed to provide position coverage and training opportunities for operators.

7. Assist in coordination of training activities to support ongoing System Operator NERC CEH recertification activities.
8. Development and implement of formal classroom exercises involving technical personnel presentations and testing to meet NERC CEH and company requirements.
9. Maintain internal training library of current and up to date NERC CEH training modules
10. Assists with maintenance and updating of System Operations website.
11. Assist with coordination of MISO restoration drills and other regional training activities as required.
12. Switching personnel qualified to perform switching. Maintain up to date qualified switching listing.
13. Regular training and simulation exercises with System Operators to ensure MP readiness to operate from the Backup Control Center.
14. Coordinate training on OMS system. Provide point of contact and day to day support on OMS issues.
15. Assure periodic (annual) review of system operating guidelines to ensure correctness and NERC compliance.
16. Provide on-shift training support as necessary.
17. Other duties and special assignments as required.

**WORKING RELATIONSHIPS:**

External: Other utilities, MISO, MRO, NERC, industry groups, industrial customers

Internal: Customer Supply & Delivery, Energy Supply & Asset Optimization, EMS Support, Generation Energy Center Operations, Telecommunications, System Performance, Public Relations, Strategic Accounts, Information Technology Services, Human Resources, Service Dispatch

**HIRING GUIDELINES:**

**Education:**

Associates degree in power technology, electrical power operations, or equivalent.

**Experience:**

Four or more years experience as a Minnesota Power System Operator or closely related operational experience.

**Special Requirements:**

Completion of Minnesota Power's 4 Year System Operator Training Program. Must possess and maintain NERC System Operator Certification.

# **Marketing Job Descriptions**



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## STATEMENT OF POSITION RESPONSIBILITIES

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<b><u>POSITION TITLE:</u></b>	Short Term Energy Markets Supervisor
<b><u>EEO / Job Group:</u></b>	First/Mid-Level Officials and Managers
<b><u>FLSA Status:</u></b>	Exempt
<b><u>SOC Job:</u></b>	Yes

### **GENERAL PURPOSE:**

Provides day to day supervision of short term energy trading operations to ensure effective and efficient management of Company resources. Develops and implements short term purchase and sales strategies to minimize Company's least cost supply and maximize asset optimization within established risk and reliability standards and Pool/MISO requirements. Supervises the energy and transmission scheduling functions to ensure delivery of energy transactions. Maintains current network resource information for use in resource planning processes at MISO, MAPP, etc. Requires high level of interpersonal and communication skills to establish and maintain working relationships.

### **Job Objectives**

1. Provides supervision to real time traders through the development and implementation of policies and procedures that optimize short term energy operations consistent with the requirements of the MISO Energy Market to meet business objectives.
2. Works with management to develop and implement short term purchase/sales strategies to minimize Company's least cost supply and maximize asset optimization.
3. Adheres to ALLETE Risk Management Policies and Guidelines, established Sarbanes-Oxley controls, reliability standards, industry requirements, regulatory rules and policy issues relating to MAPP, MISO, MRO, NERC, MPCA, FERC and MPUC, including applicable Standards of Conduct, to ensure compliance.
4. Ensures daily administration of bilateral contracts to ensure least cost supply dispatch of resources or alternate purchases within reliability and generation constraints and within the MISO Energy Market.
5. Facilitates the exchange of short term information among the Generation Operations, System Operations and Marketing areas to optimize Company's operations under all conditions in the MISO energy market.
6. Maintains expertise on emerging trends to fully understand applications and impact to Company.
7. Coordinates with Transmission Marketing Manager to follow Transmission Purchasing Policy manual with respect to Strategic Transmission Positions.
8. Develops and maintains MISO Module E resource information to ensure accurate and timely submittal of the information to MISO.
9. Collaborates with others in Energy Supply to develop and implement strategies to secure FTRs in the Monthly and Annual FTR Allocation Process and the Monthly and Seasonal FTR Auction Process.
10. Monitors the outcome of the FTR strategy and makes recommendations on alternative strategies as needed.
11. Maintains current Load & Capability for use as reference in the Energy Supply area on Company's capacity versus load position and as part of RMIG process.



**WORKING RELATIONSHIPS:**

External: Other utility system operators, schedulers and merchants. Power Marketers, counterparties at other utilities, vendors, consultants, and auditors. Regional Transmission Operator's (RTO) power pool system operators/coordinators, and large power customers' system operators.

Internal: Engineering and operating departments of Company, Environmental Resources, Accounting, Audit, Legal, Public Relations, ALLETE management, and Marketing.

**HIRING GUIDELINES**

Education:

Bachelor's degree in Business Administration, Accounting, Economics, Engineering, Electrical Technology, related field or equivalent.

Experience:

Five or more years of job-related experience.

Special Requirements:

This position may be subject to assessment of skills, job match and/or aptitude.



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## STATEMENT OF POSITION RESPONSIBILITIES

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**POSITION TITLE:** Power Markets Analyst Senior

**EEO Job Code:** c / 007 Senior Finance/Administrative Professionals

**FLSA Status:** Exempt

**Census Code:** 181

**GENERAL PURPOSE:**

Responsible for monitoring evolving markets (energy, emissions, renewable energy credit, etc.) to identify opportunities, strategies, and requirements for ALLETE to participate in these markets. Develops operational plans which support MP strategies, identifies market segment opportunities, investigates and develops purchase/sales strategies to benefit least cost supply and/or maximize value of assets and positions. Requires a high level of leadership and interpersonal skill to develop and enhance working relationships with internal staff and external counter-parties and to advocate for opportunities that benefit the company and customers.

**JOB OBJECTIVES:**

1. Assemble and lead teams to investigate, develop, and implement new strategies that help achieve strategic objectives.
2. Establishment and maintenance of internal relationships and industry contacts including buyers, suppliers, aggregators, and delivery system owners/operators) to facilitate a presence in alternative energy markets.
3. Development of analytical and conceptual market analysis to identify opportunities and entrance points into targeted market segments and to train others within Energy Supply on how to participate in these markets.
4. Pricing of physical short term electricity transactions and familiarity with the contractual aspects associated with transmission and power purchases and sales, including justification for proposed and implemented transactions and corresponding driving strategies.
5. Development of technical expertise in the establishment of physical and financial electricity products and strategies, and train others in Energy Supply on its applications.
6. Input for and implementation of strategy addressing regional market needs, product delivery issues and concerns that facilitate transactions with targeted utilities, municipalities, cooperatives, marketers and brokers, co-generators, and independent power producers.
7. Application of fundamental technical and commercial understanding of electricity, emission allowance, and renewable energy marketing into non-traditional business opportunities.
8. Development of trading and analytical understanding applicable to financial derivatives and futures contracts as they are introduced and the financial market as it applies to electricity, natural gas, emissions allowances, and markets for renewable energy credits.

9. Ensure compliance with risk management policies, reliability standards, industry procedures and other regulations (MISO, MRO, RTO, NERC, FERC and MPUC), including applicable Standards of Conduct.
10. Compliance with tariff and market behavior and other regulations.
11. Provides backup to Short Term Energy Supply area when needed.



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## STATEMENT OF POSITION RESPONSIBILITIES

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**POSITION TITLE:** Power Markets Analyst II

**EEO Job Code:** C / 008 Finance/Administrative Professionals

**FLSA Status:** Exempt

**Census Code:** 181

**GENERAL PURPOSE:**

Responsible for monitoring evolving energy markets (PJM, IMO, MISO Day 2, etc.) to identify opportunities, strategies, and requirements for ALLETE to participate in these markets. Develops operational plans which support MP strategies, identifies market segment opportunities, investigates and develops purchase/sales strategies to benefit least cost supply and minimize ALLETE customer cost. Requires a high level of leadership and interpersonal skill to develop and enhance working relationships with internal staff and external counter-parties and to advocate for opportunities that benefit the company and customers.

**JOB OBJECTIVES:**

1. Develop information to support the least cost supply energy strategy.
2. Develop clear and concise reports and recommendations.
3. Assist in analysis of relevant markets and recommendation on what the company's position should be in those markets.
4. Establishment and maintenance of internal relationships and industry contacts including buyers, suppliers, aggregators, and delivery system owners/operators) to facilitate a presence in alternative energy markets.
5. Development of analytical and conceptual market analysis to identify opportunities and entrance points into targeted market segments and to train others within Energy Supply on how to participate in these markets.
6. Pricing of physical short term electricity transactions and familiarity with the contractual aspects associated with transmission and power purchases and sales, including justification for proposed and implemented transactions and corresponding driving strategies.
7. Development of technical expertise in the establishment of physical and financial electricity products and strategies, and train others in Energy Supply on its applications.
8. Input for and implementation of strategy addressing regional market needs, product delivery issues and concerns that facilitate wholesale power purchases and sales transactions with targeted utilities, municipalities, cooperatives, marketers and brokers, co-generators, and independent power producers.

9. Application of fundamental technical and commercial understanding of electricity marketing, trading, interconnected transmission delivery system, and pricing into non-traditional business opportunities.
10. Development of trading and analytical understanding applicable to electric financial derivatives and futures contracts as they are introduced and the financial market as it applies to electricity.
11. Ensure compliance with risk management policies, reliability standards, industry procedures and other regulations (MISO, MRO, RTO, NERC, FERC and MPUC), including applicable Standards of Conduct.
12. Compliance with tariff and market behavior and other regulations.
13. Provides backup to Short Term Energy Supply area when needed.

**WORKING RELATIONSHIPS:**

External: Customers, other utilities, aggregators, marketers, generation developers, regulatory agencies, and governmental bodies, with relationships ranging from staff to executive level contacts.

Internal: Risk, Finance, Generation, Marketing, Front/Middle/and Back Office, and Legal.

**HIRING GUIDELINES:**

**Education:**

Bachelor's degree in business administration, engineering or related technical field, marketing or equivalent. Advanced degree and/or professional licensures (CPA, PE, etc.) desirable.

**Experience:**

Six years job-related experience.

**Special Requirements:**

This position may be subject to assessment of skills, job match and/or aptitude.



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## STATEMENT OF POSITION RESPONSIBILITIES

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**POSITION TITLE:** Real Time Trader I, II, III  
**EEO Job Code:** 008 Finance/Administrative Professionals  
**FLSA Status:** Exempt  
**SOC Job:** Yes

**GENERAL PURPOSE:**

Performs a variety of duties to proactively optimize the Company’s short-term physical and financial electric resource portfolio. Collaborates with MP Generation and System Operations to optimize generating unit offers with MISO to maintain the most favorable mix of energy/regulation/reserves to accomplish least cost supply and meet system reliability requirements. As required, execute bilateral purchase/sales transactions by negotiating price and delivery terms to meet least cost supply needs while adhering to established strategies and risk parameters. Constantly monitors electric energy market, Minnesota Power’s energy position and system operating conditions to make proper energy resource decisions. Effective communication and interpersonal skills required to establish and maintain internal and external working relationships.

**JOB OBJECTIVES:**

1. Administration and implementation of approved strategies to optimize MP generation, and short-term power and energy portfolio including scheduling and operations functions, to meet customer least cost supply energy needs. (resource allocation).
2. Responsible for adherence to environmental regulation, appropriate market behavior conduct, reliability requirements and other regulatory rules and regulations (NERC, FERC, MAPP, MPCA, MISO and MPUC).
3. Effectively understand, manage, and respond to all conditions affecting MP’s physical and financial electric energy portfolio, including related documentation to be sure assets are optimized and LCS requirements are met.
4. Development and maintenance of highly credible, positive, and effective relationships and communication with trading and marketing counterparts and with key individual in the power marketing industry to help ensure MP has enough options and receives favorable pricing when buying or selling wholesale energy.
5. Maintain constructive internal working relationships with Generation Operations, Control Area Operations, Marketing and other areas of the company so that work can be completed as smoothly and effectively as possible.
6. Integration of power trading and marketing functions with other MP functions related to strategic policies, procedures, and goals consistent with company’s short- and long-term goals regarding the LCS and asset optimization function and other products and services.
7. Ensures purchase decisions are consistent with established policies, transaction records are accurately maintained, and operations activities are properly documented, managed and optimized.
8. Adherence to all MP risk management policies and procedures as approved by the Risk Management Committee.
9. Management and protection of MP purchase and sales portfolios through monitoring of risk to maintain exposure within acceptable and approved limits.
10. Development of a well balanced short- and long-term perspective of MISO market, alternative markets, market direction and identifying possible effect on existing and proposed transactions.

**WORKING RELATIONSHIPS:**

External: Regional MISO Operations Center, other utilities, Power Marketers, municipal and wholesale customers.

Internal: Engineering, Generation Operations, Control Area Operations, Environmental Services, IT, Accounting, Audit, Legal, and Marketing.

**HIRING GUIDELINES:**

**Education:**

Bachelor’s Degree in Business Administration, Accounting, Economics, Engineering, , or related field; or formal technical training (Electrical Technology) plus experience equivalent to a Bachelor’s Degree.

**Experience:**

Real Time Trader I – Over one year of related experience

Real Time Trader II – Over one year of experience as Real Time Trader I

Real Time Trader III – Over two years experience as Real Time Trader II and demonstrated proficiency in identifying, analyzing and gaining approval of strategies to optimize MP’s energy portfolio.

**Special Requirements:**

Traders must be able to work a shift schedule as part of a 24-hour, 7-days a week operation. Shifts consist of 12-hour rotations.

Candidates must be self-motivated, capable of working in a high-energy, fast-paced team environment, and possess good organizational skills, communication skills, and interpersonal skills.

This position may be subject to assessment of skills, job match and/or aptitude.