



**DIVISION:** Planning and Infrastructure Development  
**TITLE:** Senior Network Applications Engineer – Dynamic Stability Analysis  
**LOCATION:** Folsom, CA  
**DEPARTMENT:** Network Applications

**PRIMARY PURPOSE:**

Under the general direction of the Manager of Network Applications, the Senior Network Applications Engineer is primarily responsible for providing technical expertise and leadership in Dynamic Stability Analysis to other engineers and Real-Time Grid Operations. This position will lead the implementation of on-line Dynamic Stability Analysis functionality at the California ISO. The Senior Network Applications Engineer may also work on moderately complex engineering projects as assigned.

**ESSENTIAL JOB FUNCTIONS:**

- Lead the implementation of on-line Dynamic Stability Analysis functionality in CAISO control center including all technical project management responsibilities. Prioritize, assign and monitor tasks for Network Application Engineers and other team members as required
- Identify and resolve issues related to the implementation of on-lines Dynamic Stability Analysis and assess both technical and business impacts of problems and proposed solutions
- Provide technical leadership and support for on-line Dynamic Stability Analysis to Control room operators and other CAISO departments as needed
- Prepare, design and analyze a variety of computer-based models, transient and dynamic stability analysis on electrical power systems (transmission level) along with other on-line Network Applications such State Estimator, Contingency Analysis, Voltage Stability analysis (static)
- Provide Real-Time Transmission Grid Operations support of Energy Management System (EMS) Real-Time Network Applications (State Estimator (SE), Real-Time Contingency Analysis, Dispatcher Load Flow, Voltage Security Assessment, etc.)
- May interface with vendors as needed
- Provides 24x7 on-call support on a rotational basis
- Adheres to and supports the Core Values of the ISO.
- Performs related duties and activities as appropriate.

**TYPICAL PHYSICAL REQUIREMENTS:**

Most of the time is spent sitting in a comfortable position and there is frequent opportunity to move about. Occasionally there may be a requirement to stoop or lift or handle material or equipment weighing up to 25 pounds. Requires normal manual dexterity and eye-hand coordination, and corrected vision and hearing to normal range.

**WORKING CONDITIONS:**

Located in a comfortable indoor area. Any unpleasant conditions would be infrequent and not objectionable. Most of the time is spent in general office or equivalent conditions which result in little or no exposure to injury or accident.

**MINIMUM QUALIFICATIONS:**

- **Level of Education**  
A Master's degree (MS) or equivalent education, training and experience. PhD preferred.
- **Discipline**  
Electrical Engineering, Power systems or related field.
- **Amount of Experience**  
Five or more years related experience.
- **Type of Experience**  
Electric industry experience including industrial hands-on experience in Dynamic Stability Analysis in on-line mode. Experience in power flow, dynamic stability and system modeling is must. Thorough understanding of power system hardware, its capabilities/limitations is required. Hands-on with power system simulation software tools (PSLF, PSSE, etc) is essential.

Knowledge of more sophisticated equipment used in power systems such as excitation systems, governor systems, Static Var Compensators, HVDC converters, series capacitor compensation desired. Ability to analyze the effects of higher frequency transients and/or other small time step dynamic analysis desired.

- **Special Certifications of Technical Skills**

Professional Engineering License desirable.

- **Other**

Good oral and written communication skills. Ability to set and meet self-imposed deadlines. Strong conceptualization ability, strong interpersonal, communication, leadership and organizational skills are required. This includes the ability to explain complex technical issues to decision-makers and non-technical audiences.

## **SALARY CLASSIFICATION:**

- FLSA: Exempt

- Job Code:

Last Date Revised: 12/27/2008