



<b>Classification:</b> Senior Electrical Engineer	<b>Position No.</b> 8100-3600-001
<b>CBID:</b> S09	<b>Office:</b> Supply Analysis
<b>Date Prepared:</b> October 12, 2017	<b>Division:</b> Energy Assessments
<b>KEY: (E) IS ESSENTIAL, (M) IS MARGINAL</b>	

Under the general supervision of the Manager of the Supply Analysis Office (SAO) of the Energy Assessments Division, the Senior Electrical Engineer shall primarily perform electricity power flow modeling and analysis to understand electric system reliability in relation to natural gas supply. This includes independently developing contingency plans, alternative scenarios, and other analysis needed to preserve electric service reliability.

The incumbent is expected to perform difficult and complex work in specialized areas of electrical engineering such as advanced power flow modeling and related power systems analysis.

**WORKING CONDITIONS.** The work is performed primarily indoors in an office and meeting room setting and involves sitting, standing, and walking. Travel may be necessary to attend workshops, hearings, and meetings away from the Energy Commission’s headquarters.

**DUTIES AND RESPONSIBILITIES:**

- 40% Plans, organizes, and provides high level engineering technical leadership, direction and coordination for electrical engineering analysis relating to grid reliability. Identifies, selects, and runs appropriate electricity power flow models to test variables, assumptions, and scenarios relating to electric grid operations. Leads staff in developing new methods and applications for contingency planning, along with integrated electric and gas modeling to understand electric system grid reliability. Identifies necessary data for analysis, and reviews and verifies for completeness. Ensures all data is properly handled. (E)
- 30% Leads, coordinates, and communicates with staff, California utilities, government agencies, and industry stakeholders regarding electricity and integrated electricity and natural gas modeling, analysis results, and any suggested modifications. This includes participating in meetings with analysts to strategize about modifications and to monitor updates in the context of California energy policy, analytical uses, and program impacts on various forecasts. Guides others in group settings. (E)
- 15% Identifies and develops scope for additional technical and analytical work that cannot be performed internally. This includes developing study plans related to grid reliability. Directs and reviews the work of teams of engineering consulting firms performing these studies under contract. (E)
- 10% Serves as the lead technical resource lead on integrated electricity power flow modeling and analysis in relation to natural gas fired generation and system reliability. Responds to complex requests for technical engineering analyses and



information from management, state policy makers, industry and members of the public. (E)

- 5% Coordinates meetings and presents technical engineering reports on natural gas and electric reliability issues and research in Energy Commission workshops, utility workshops, and other forums as necessary. Testifies on request at Energy Commission hearings or on behalf of the Energy Commission before regulatory bodies on natural gas and electric reliability related questions. Performs other duties consistent with the specifications of this classification. (M)

<b>SIGNATURES</b>			
<b>I Certify That I Am Able To Perform, With Or Without The Assistance Of A Reasonable Accommodation, The Essential Job Duties Of This Position</b>			
_____		_____	
Employee	Date	Manager	Date
Senior Electrical Engineer		Energy Resources Specialist III (Managerial)	