



Classification: Electric Generation System Specialist I	Position No. 3200-4841-005
CBID: R09	Office: Energy Generation Research Office
Date Prepared: May 4, 2018	Division: Energy Research and Development
KEY: (E) IS ESSENTIAL, (M) IS MARGINAL	

Under the general direction of the Electric Generation Systems Specialist III, the incumbent serves as part of interdisciplinary and or interdivisional teams to plan and implement research, development, and demonstration (RD&D) projects that advance renewable energy integration and distributed energy resource (DER) technologies. The goal of the Energy Research and Development Division is to conduct RD&D to advance science and technologies not adequately provided by the regulated and competitive markets. The incumbent plans, organizes, implements, and reports on the program activities relating to the development of clean and affordable electricity generation. The goal of R&D is to fund electric public interest investments that provide electricity ratepayer benefits, defined as promoting greater system reliability, lower costs and increased safety.

The incumbent will address the research issues affecting the design, operation, and integration of new energy technologies; assess the ability of new and emerging renewable generation technologies and other enabling technologies to be designed, developed, and deployed to help meet the Renewable Portfolio Standards goals; identify methods, models, and techniques to evaluate energy system impacts of renewable energy and distributed generation; assess the impact of community-scale and utility-scale renewable energy technologies on the cost of generation; develop, test, and field new computer models to determine the ideal characteristics, design, operation, and locations for desirable new renewable technologies; reduce greenhouse gases by increasing the penetration of high efficiency combined heat and power (CHP) system technologies; and develop and publish scenarios detailing optimal configuration of new renewable resources and CHP systems.

WORKING CONDITIONS. Work is performed primarily in an office, conference room, and hearing room environment and may require standing and walking as well as sitting for long periods of time. Work area is well lighted and ventilation is adequate. The noise level may be often high. Some travel is required to attend off-site meetings. Additional hours beyond an eight-hour workday or forty-hour workweek may be required. While performing the duties described below, the incumbent will be required to work alone and/or in a team environment, utilizing a personal computer and appropriate Commission software such as word processing, electronic mail, Internet and analytical models; participate in meetings with other staff and other agencies.

DUTIES AND RESPONSIBILITIES:

40% Conduct EPIC Program planning and implementation, including implementation of the Triennial Investment Plans; conduct EPIC RD&D planning, contracting and grant award activities; and develop and implement innovative ideas, concepts and efforts to incubate new clean energy technology products and solutions through RD&D and market facilitation. The incumbent engages in completing complex technical analysis, evaluations, field demonstrations and system tradeoffs on the ability of new and emerging renewable integration, DER, and other energy technologies to conform to planning and operational elements of electric generation systems. Develop and use complex system models that will evaluate and assess the performance, reliability and capability of new energy technologies to perform in electricity systems both as individual technologies and within a larger portfolio of many different new technologies. Evaluate the ability of new technologies to fit in with the state's planning, interconnection, capacity, resource adequacy, and reliability



requirements, as well as existing and planned wholesale and retail markets. Using and interpreting the output of computer models, the incumbent will evaluate the potential impacts of the new technologies on state mandated goals such as higher levels of electricity generation from renewable resources, reduction of greenhouse gas emissions and criteria pollutants, maintenance of reliable electricity delivery, and reduction of natural gas use. (E)

- 25% Lead the research, design and development of new renewable integration and DER technologies to ensure that they will, whether taken individually or as a group, fit in with electricity systems in terms of operation, characteristics, and benefits. The incumbent implements solicitations and collaborative strategies to meet EPIC Program goals through project development by defining the project scope, work statement, and budget. The incumbent reviews proposals to determine how well the project addresses the scope of the solicitation criteria including, but not limited to: the extent the project will advance science or technology, address market issues and needs, meet specified target goals and objectives; the skill and experience of the project team to carry out the technical tasks within budget and schedule, and move the results into the marketplace; and the adequacy of the project funding. The incumbent prepares written findings of such evaluations. The incumbent briefs Office, Division, Commission management and Commissioners on California Public Utilities Commission (CPUC) proceedings and California Independent System Operator (CAISO) initiatives. (E)
- 10% Consult with and advise the Electric Generation Systems Specialist III, Office Manager, Division management and Commissioners on a variety of energy systems integration and research needs related to renewable integration and DER technologies and their application on the electricity generation systems. Participate in identification of issues and analytic methodologies. (E)
- 10% Participate in the development of the EPIC Program annual report to the CPUC. Work with stakeholders and synthesize complex information from many sources into consensus (where feasible) regarding the direction of the electricity RD&D. (E)
- 10% Follow proceedings at the CPUC and initiatives at the CAISO that may impact or be informed by EPIC research projects. Summarize status and upcoming needs of these proceedings and initiatives to guide research. The incumbent friends Office, Division, Commission management, and Commissioners on the CPUC proceedings and CAISO initiatives. (E)
- 5% Perform other duties as required consistent with the specifications of this classification. (M)

SIGNATURES	
I Certify That I Am Able To Perform, With Or Without The Assistance Of A Reasonable Accommodation, The Essential Job Duties Of This Position	
<div style="border-top: 1px solid black; display: flex; justify-content: space-between; margin-top: 5px;"> Incumbent Date </div> <p style="margin-top: 5px;">Electricity Generation System Specialist I</p>	<div style="border-top: 1px solid black; display: flex; justify-content: space-between; margin-top: 5px;"> Supervisor Date </div> <p style="margin-top: 5px;">Electric Generation System Specialist III</p>