STATE OF CALIFORNIA

DUTY STATEMENT
CEC-004 (Revised 2/2022)

Classification(s): Mechanical Engineer

Working Title: Mechanical Engineer

Position Number: 535-330-3583-007

Division/Branch: Energy Research & Development/Energy Systems Research

Collective Bargaining Identifier (CBID): R09

Work Week Group (WWG): 2

Effective Date: August 2022

Conflict of Interest (COI): ☒ Yes □ No

If yes, this position is responsible for making or participating in the making of governmental decisions that may potentially have a material effect on personal financial interests. The appointee is required to complete Form 700 within 30 days of appointment, which identifies pertinent personal financial information.

Job Description

Under the direction of the Energy Resources Specialist III (Supervisory) in the Energy Systems Research Branch, the incumbent provides mechanical engineering support for the Transportation Research Unit. The incumbent conducts complex engineering and technical analyses and makes technical contributions in the development of the natural gas program policy. Dependent on alternate range placement, the incumbent will perform mechanical engineering-related analyses and other related work at the entry, first working or journey level. The incumbent is knowledgeable in advanced transportation technologies and advanced energy efficiency concepts, technologies, and practices; performs technical or market analyses to support natural gas research, development and demonstration (RD&D); and conducts and manages complex RD&D projects. The transportation research area will involve innovative transportation technologies and integration of renewable energy systems with complex and varied mechanical designs and processes, and storage and energy conversion systems not typically used in the industry.

Essential Duties

50% Perform mechanical engineering assessments and analyses associated with vehicle integration, renewable energy conversion technologies, and distributed energy resources research and development projects. Analyze developments relating to innovative and unique mechanical design approaches to enhance energy and emission control systems and provide contract managers with specific guidance on research direction. Develop the Transportation research plan for the Gas research and development (R&D) program and
develop initiatives for transportation technology and systems R&D with input from Commission staff and key stakeholders. Develop solicitations and minimum technical specifications/requirements for gas RD&D funding, perform technical evaluations of proposals for transportation and renewable energy technologies, and present recommendations to management for consideration. Participate in and/or lead discussions to explore synergies with other research areas and programmatic approaches that complement proposed transportation R&D activities.

**30%** Manage complex gas RD&D projects related to mechanical designs and processes for transportation technologies, vehicle integration, distributed generation and natural gas storage. These projects will involve technical engineering issues, mechanical engineering design, implementation, and demonstration. Review technical specifications; checks design and construction drawings; and develops and runs economic models that result in cost estimates of mechanical systems. Make detailed inspections of development and testing operations in the field. Conduct independent evaluations covering development, testing and installation of cutting-edge mechanical components and processes and recommends improvement to mechanical systems to increase performance and efficiency.

**15%** Develop written materials with a focus on transferring information that provides significant public benefits to California and meets the state’s energy policies and goals. Contribute to annual program reports, investment/budget plans, and benefits reports. Review and finalize project reports, fact sheets, and other documents to disseminate research results and lessons learned to various audiences and Energy Commission staff.

**Marginal Duties**

**5%** Perform other duties as required, consistent with the specifications of the classification.

**Working Conditions**

The California Energy Commission offers a hybrid workplace model that is designed to support a distributed workforce of both office-based and remote-centric workers that relies on a high level of telework. Limited-in person attendance and occasional travel may be required based on the needs of the division. Regular and consistent attendance - whether office-based or remote-centric - is essential to the successful performance in this position. This position is remote centered which means the incumbent works 50 percent or more of their time monthly from an alternate work location (i.e., teleworking).

**Diversity and Inclusion Statement**

As a state agency serving all Californians, the California Energy Commission is committed to being an organization that embodies diversity, equity, and inclusion. The Energy Commission plays an active and meaningful role in creating an environment that enables each employee to thrive.
Employee’s Acknowledgement: I certify that I am able to perform, with or without the assistance of a reasonable accommodation, the essential duties of this position.

Employee’s Name (Print): Vacant

Employee’s Signature: ___________________________ Date: ______________

Supervisor’s Acknowledgment: I certify this duty statement represents a current and accurate description of the essential functions of this position. I have discussed the duties of this position with and provided the above-named employee a copy of this duty statement.

Supervisor’s Name (Print): Peter Chen

Supervisor’s Signature: ___________________________ Date: ______________