



STATE OF CALIFORNIA

DUTY STATEMENT

CEC-004 (Revised 7/2021)

Classification(s): Mechanical Engineer

Working Title: Mechanical Engineer

Position Number: 535-320-3583-009

Division/Office: Energy Research and Development/Energy Generation Research

Collective Bargaining Identifier (CBID): R09

Work Week Group (WWG): 2

Effective Date: November 2021

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 (Supervisor) and in consultation with the Technical Lead for the Renewable Energy and Advanced Generation (REAG) Program in the Energy Generation Research Office, the incumbent supports advancement of renewable energy and advanced generation technologies to meet the state's energy policy objectives, including for decarbonization, energy affordability, and equity. The incumbent: (1) conducts difficult mechanical engineering analyses to identify and advance opportunities for technology research development and deployment (RD&D) in the areas of renewable energy, especially for wind (onshore and offshore), renewable hydrogen production and generation, and other energy production and conversion technologies at both utility and distributed scales; (2) develops and manages research grant solicitations to pursue strategic RD&D opportunities based on engineering expertise and policy considerations; (3) manages highly complex RD&D grant agreements implemented by the Energy Commission's research partners (such as startups, established firms, non-profit research institutions, and universities, among others), requiring grant administration, collaboration facilitation, technical support, and analysis (e.g., engineering plans and designs of renewable and advanced energy generation technologies and systems); and (4) develops and delivers written summaries and oral presentations on the areas above to support decision-making of the Energy Commission, its grant recipients, and stakeholders in the energy sector broadly.

Essential Duties

40% Identify and advance opportunities for RD&D for renewable energy (e.g., green hydrogen production and generation, onshore and offshore wind, geothermal (including coupled with lithium recovery), solar, bioenergy) through technical and engineering assessments and reviews of new and emerging mechanical technologies. Conduct mechanical engineering

evaluations of energy system designs and material science to ensure mechanical systems perform as expected. Monitor developments on emerging renewable energy technologies and their markets, and their relation to state and federal policies. Identify technology research needs and market barriers and prepare recommendations and inform the Energy Commission's research initiatives for renewable energy strategic planning. Develop recommendations for strategic RD&D opportunities, RD&D electricity and natural gas program reports, and programmatic or policy changes. Identify, consult, and coordinate with relevant subject matter experts in the Energy Commission; academic and research organizations; federal, state, and local government agencies; national laboratories; utilities; and other entities.

- 30% Manage highly complex technology RD&D agreements implemented by the Commission's contract or grant recipients, such as startups, established firms, non-profit research institutions, and universities. The incumbent a) uses mechanical engineering expertise to inform the research project design and scope; b) evaluates and provides feedback on changes to project activities and budget to maintain project priorities; c) uses mechanical engineering expertise to evaluate technical deliverables and provides feedback, such as on performance, efficiency, and the economics of engineering system design, components, and materials; d) conducts administrative tasks associated with agreement management such as reviewing invoices and preparing amendments; e) tracks benefits and findings and ensures they are clearly communicated in final products; f) evaluates project and recipient performance; and g) provides updates to management, as needed.
- 15% Develop and deliver written summaries, oral presentations, and briefings on the areas above to support planning and decision-making of the Energy Commission, its RD&D partners, and stakeholders in the energy sector broadly. This includes summarizing findings and recommendations to Energy Commission management, Commissioners, and external stakeholders, including at public meetings and workshops; developing written recommendations for management based on engineering expertise and policy considerations; and summarizing research results and policy initiatives in fact sheets, staff reports, and other documents for the general public.
- 10% Develop research investment proposals and grant solicitations. Using their knowledge in mechanical engineering, the incumbent a) researches and evaluates the technology readiness, market needs, and benefits of existing and new renewable generation and distributed generation technologies; b) reviews and evaluates project proposals to determine how well the project addresses the scope of the solicitation criteria; c) prepares written findings of such evaluations for use by a technical scoring committee; and d) summarizes status and findings to management.

Marginal Duties

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

Working Conditions

The California Energy Commission is primarily a telework environment. Limited-in person attendance and occasional travel may be required based on the needs of the division. Regular and consistent attendance is essential to the successful performance in this position. The Energy

Commission encourages a hybrid workplace model that is designed to support a distributed workforce of both office-based and remote-centric workers.

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): _____

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): Daphne Molin_____

Supervisor’s Signature: _____ **Date:** _____The