

DOCKETED

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CALIFORNIA ENERGY COMMISSION

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CEC-57 (Revised 1/19)



**STATE OF CALIFORNIA
STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

**APPLICATION FOR SMALL POWER PLANT
EXEMPTION FOR THE:**

**MISSION COLLEGE BACKUP
GENERATING FACILITY**

Docket No. 19-SPPE-05

**ENERGY COMMISSION STAFF'S PREHEARING
CONFERENCE STATEMENT**

On May 28, 2020, the Committee overseeing the Mission College Data Center/Backup Generating Facility Small Power Plant Exemption application issued a scheduling order requiring parties to file a Prehearing Conference Statement and Exhibit List by June 9, 2020 and June 10, 2020, respectively. The requested information is presented below.

1. The subject areas that are complete and ready to proceed to Evidentiary Hearing.

All subject areas are complete and ready to proceed to evidentiary hearing.

2. The subject areas upon which staff proposes to introduce testimony in writing rather than through oral testimony.

Staff proposes to introduce all of its initial direct testimony in writing. This testimony consists of the documents identified in the exhibit list provided later in this document. To the extent disputed issues are identified, staff will provide a summary of the pertinent testimony orally and will make itself available for cross-examination and questions from the Committee.

3. The subject areas that are not complete and not yet ready to proceed to the Evidentiary Hearing, and the reasons therefor.

There are no technical areas that are not ready to proceed to evidentiary hearing.

4. The subject areas that remain disputed and require adjudication, the issues in dispute, and the precise nature of the dispute for each issue.

Staff does not have any dispute with the applicant in any subject area.

5. The identity of each witness staff intends to examine at the Evidentiary Hearing, the subject area(s) about which the witness(es) will offer testimony, whether the testimony will be oral or in writing, a brief summary of the testimony to be offered by the witness(es), qualifications of each witness, and the time required to present testimony by each witness.

In previous proceedings, the testimony of representatives from Silicon Valley Power (SVP) and Bay Area Air Quality Management District (BAAQMD) has been helpful. These agencies are willing to again provide testimony, and, staff is prepared to lead representatives from these agencies through direct testimony as follows:

Kevin Kolnowski, P.E. – Electric Utility Chief Operating Officer, City of Santa Clara’s Silicon Valley Power, to discuss the effect of the Mission College Data Center on SVP’s system. The testimony would be oral and would take approximately 10 minutes.

A representative from the Bay Area Air Quality Management District’s office of Planning and Climate Protection will be available to discuss the Air Quality and Greenhouse Gas Emissions analysis. The testimony would be oral and would take approximately 10 minutes.

Because their analysis overlaps, staff proposes to present the following witnesses as a panel to discuss the Air Quality (including Public Health) and Greenhouse Gas (GHG) Emissions analysis and testimony. Dr. Jiang and Dr. Chu will provide opening statements summarizing the pertinent aspects of their testimony and Mr. Birdsall, who provided important support for the analysis, will be available for cross-examination and to answer any questions from the Committee:

Dr. Tao Jiang, Ph.D. – Air Quality and GHG
Dr. Huei-an (Ann) Chu, Ph.D. – Public Health and Health Risk Assessment
Brewster Birdsall, P.E. – Air Quality criteria pollutant modeling

The above panel's testimony would mainly consist of written testimony and the brief opening statements mentioned above and would take approximately 10 minutes. The main portions of this testimony are contained in chapters 5.3, 5.8, and Appendix B of the Initial Study/Proposed Mitigated Negative Declaration (IS/PMND), and CEC Staff's Responses to Comments on the IS/PMND. The witnesses' qualifications are attached to this document.

Lastly, staff will present staff witnesses:

Shahab Khoshmashrab, P.E. and Kenneth Salyphone – Energy and Energy Resources and Generating Capacity

The panel's testimony will consist mainly of written testimony, with an opening statement taking approximately 5 minutes. The witnesses' qualifications are attached. The main portions of the written testimony are contained in chapter 5.6 and Appendix A of the Initial Study/Proposed Mitigated Negative Declaration.

Staff recommends the testimony be taken in the following order:

SVP

BAAQMD

Air Quality/Public Health/Greenhouse Gas Emissions

Energy and Energy Resources/Generating Capacity

6. Subject areas upon which staff desires to question the other parties' witness(es), a summary of the scope of the questions (including witness qualifications), the issue(s) to which the questions pertain, and the time desired to question each witness.

Staff may have questions for Mr. Sarvey related to anything Mr. Sarvey files prior to or during the evidentiary hearing. At this point Mr. Sarvey has not filed anything and staff would object to the late filing of testimony past the deadlines set forth by the Committee. Nevertheless, if the Committee allows any late filed material by Mr. Sarvey to come in, staff may request to ask Mr. Sarvey questions. Because nothing has been filed to date, it is difficult to estimate the amount of time this would require.

7. A list identifying exhibits with transaction numbers (TN) that the party intends to offer into evidence during the Evidentiary Hearing and the technical subject areas to which they apply.

Proposed Exhibit Number	Document TN	Title of the Document as shown in the docket	Subject area
200	232798	Mission College Data Center Initial Study and Proposed Mitigated Negative Declaration	All
201	233274	CEC Staff Responses to Comments on the Initial Study and Proposed Mitigated Negative Declaration	Air Quality (including Public Health), Greenhouse Gas Emissions, Generating Capacity, Energy and Energy Resources, Environmental Justice, Hazards and Hazardous Materials
202	233101	CEC Staff's Opening Testimony	All
203	tbd	Energy Commission Staff's Prehearing Conference Statement	All

8. Proposals for briefing deadlines or other scheduling matters.

Staff does not anticipate briefs will be necessary. If any briefs are requested by the Committee, staff recommends that opening briefs be due 10 working days after the hearing transcript is docketed with reply briefs due 10 working days after opening briefs are filed.

**DECLARATION OF
Mark Hamblin**

I, Mark Hamblin, declare as follows:

1. I am employed by the California Energy Commission as a Planner II in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Aesthetics**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California



MARK R. HAMBLIN
PLANNER II

Education

Master of Public Administration. California State University Bakersfield. Bakersfield, California. August 1988.

Bachelor of Science Public Administration. California State University Sacramento. Sacramento, California. May 1984.

Experience

California Energy Commission

Planner II

November 2000 to present

I identify, describe, and analyze complex land use and planning or visual resource issues pertaining to the siting of a thermal power plant and transmission facilities using applicable federal, state, and local laws, ordinances, regulations and standards (including the California Environmental Quality Act [CEQA] and Guidelines), and the California Energy Commission siting regulations in a written analysis and/or testimony; participate in public workshops, and present sworn testimony during evidentiary hearing(s) before Commissioners, if requested.

Yolo County Planning and Public Works Department,

Associate Planner

June 1992 to October 2000

I advised and assisted individuals in the processing of land use and planning proposals (general plan amendments, conditional use permits, subdivision maps, etc.). I reviewed the proposal for consistency and compliance with state environmental, planning and zoning law (e.g., CEQA Guidelines, state Subdivision Map Act, state Williamson Act Program, etc.), the county General Plan and the county government code for presentation in a staff report before the planning commission and/or board of supervisors. I served as a county representative/liaison to citizens' organizations and interagency committees (county airport advisory committee, county habitat conservation plan steering committee, and community general plan citizen advisory committee[s]). I drafted zoning ordinances. I hired and supervised consultants. I performed contract management in the preparation of land use and environmental assessment documents (e.g., general plan amendment, environmental impact report). I served as a zoning administrator deciding on minor land use proposals. I conducted zone code enforcement with cooperation from the district attorney's office. I reviewed building plans for compliance with county codes and issuance of the permit. I answered questions from individuals who visited the public counter and over the telephone regarding land use and development in the county.

**DECLARATION OF
Jeanine Hinde**

I, Jeanine Hinde, declare as follows:

1. I am employed by the California Energy Commission as a Planner II in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Agriculture/Forestry** and **Land Use**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California

JEANINE M. HINDE

Professional Experience

Planner II

May 2010–Present

California Energy Commission, Sacramento, CA

Environmental Office of the Siting, Transmission, and Environmental Protection Division

Generalist skilled in research and analysis and preparing staff assessments on proposed power plants. Assesses environmental impacts on land use, agricultural resources, and visual resources. Preparing the agricultural resources, forestry, and land use sections for the environmental documents evaluating several proposals for small power plant exemptions. Prepares alternatives analyses to comply with environmental regulations. Prepared the alternatives analysis on the Mission Rock Energy Center, a simple-cycle, natural gas-fired (NGF) power plant with 25 megawatts of battery energy storage in Ventura County. Prepared the alternatives analysis on the Puente Power Project, an NGF power plant proposed to replace two aging once-through cooled units at the Mandalay Generating Station in Ventura County. Prepared the visual resources analysis for the Huntington Beach Energy Project in Orange County. Prepared the alternatives analysis for an amendment to the Palen Solar Electric Generating System (SEGS) in the Colorado Desert. Prepared the alternatives analysis on the Hidden Hills SEGS in the Mojave Desert. Participates in public workshops and presents testimony on contested issues at evidentiary hearings before the Energy Commission. Prepared the land use analyses for a geothermal power plant in Imperial County and an NGF power plant in Stanislaus County. Coauthored the alternatives analyses on the proposed amendments to the Carlsbad Energy Center and El Segundo Energy Center projects.

Environmental Analyst and Project Coordinator

2004–2009

EDAW-AECOM, Sacramento, CA

Coordinated preparation of environmental studies to satisfy the California Environmental Quality Act (CEQA) and the National Environmental Policy Act and related permitting and regulatory requirements. Contributed to the preparation of regulatory compliance documents for projects addressing flood protection, wastewater management, water quality, habitat restoration, and urban development. As an assistant project manager, contributed to the preparation, technical review, and distribution of a variety of environmental compliance documents for projects that included a levee repair project on the Feather and Yuba Rivers, a levee seepage project on the San Joaquin River near the Sacramento-San Joaquin Delta (Delta), a wastewater treatment plant improvement project in Atwater, and a habitat restoration project adjacent to the middle Sacramento River. As an analyst, prepared environmental impact analyses for resource topics that included land use; agricultural resources; visual/aesthetic resources; public services, utilities and service systems; hazardous materials; recreation; and geology, soils, and mineral resources. Prepared mitigation monitoring and reporting program documents and assisted with fulfilling CEQA noticing and filing requirements.

Environmental Analyst, Independent Consultant

2003–2004

Sackheim Consulting, Fair Oaks, CA

Researched and wrote the aesthetics analyses for the CEQA documents on related neighborhood electrical distribution projects in the Natomas and Elkhorn areas of Sacramento. Prepared a similar analysis for a project in Elk Grove. Assisted with the analyses addressing potential impacts on cultural resources and issues related to hazards and hazardous materials.

Environmental Specialist II

1986–1997

Jones & Stokes Associates, Sacramento, CA

Evaluated impacts on land use, visual resources, and recreation for several state and federal projects, including a water supply management program in the East Bay, a project addressing long-term management of resources in the Delta and Suisun Marsh, and a military operations project at Camp Roberts. Provided technical review and coordinated preparation of report sections prepared by staff, and assisted with research and documentation of required federal, state, and local permits and approvals to include in regulatory compliance plans.

Education: *B.A. Geography, California State University, Chico*

**DECLARATION OF
J. Brewster Birdsall**

I, James Brewster Birdsall, declare as follows:

1. I am employed by the California Energy Commission as a contractor at Aspen Environmental Group.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared the staff testimony on **Air Quality** for the **Mission College Data Center Initial Study** based on my independent analysis of the Application for Small Power Plant Exemption and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: *J. Brewster Birdsall*

At: San Francisco, California



Brewster Birdsall, PE, QEP

SENIOR ASSOCIATE, AIR QUALITY AND
ENGINEERING

SUMMARY OF QUALIFICATIONS

EDUCATION

MS, Civil Engineering, Colorado
State University, 1993

BS with High Honors, Mechanical
Engineering, Lehigh University,
1991

Mr. Birdsall is an engineer and environmental scientist who specializes in analyses of air quality and greenhouse gas (GHG) emissions with extensive experience in the areas of energy facility siting and infrastructure planning, permitting, analysis, and special studies. He has over 20 years of consulting experience focusing on climate change, air resources, and air quality and noise-impact modeling, and assessment under the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and the Clean Air Act.

PROFESSIONAL EXPERIENCE

REGIONAL RENEWABLE ENERGY RESOURCE PLANNING AND TRANSMISSION STUDIES

Various Clients
2015-2018

Mr. Birdsall actively works with the energy policy issues that affect electric utilities, transmission, and generation. He provides senior-level analyses for landscape-scale energy resource planning, energy supply alternatives, transmission planning, and the impacts on greenhouse gas emissions and air resources. Mr. Birdsall recently served as a coordinator for statewide and region-wide environmental reviews for expanding California's access to renewable energy, and he has reported on long-range energy resource planning as it relates to California's disadvantaged communities.

POSEIDON SEAWATER DESALINATION AT HUNTINGTON BEACH PROJECT

*California State Lands
Commission*
2017

Technical reviewer for topics of air quality, GHG emissions, noise, and underwater sound levels within a supplemental analysis of marine vessels and offshore installation of seawater intake and discharge.

GREENHOUSE GAS EMISSIONS THRESHOLD OF SIGNIFICANCE

*Santa Barbara County, Energy
Division*
2015

Expert review to support the Planning Commission and Board of Supervisors formal adoption of a new significance threshold, guidelines, and potential mitigation strategies for the CEQA treatment of GHG emissions caused by industrial stationary sources in the unincorporated areas of Santa Barbara County.

<p>ATHOS RENEWABLE ENERGY PROJECT <i>Intersect Power</i> 2018-2019</p>	<p>Prepared air quality, GHG, and noise topics and technical analyses for utility-scale solar power with battery storage on behalf of Riverside County and the BLM.</p>
<p>ANALYSIS OF OIL AND GAS WELL STIMULATION TREATMENTS IN CALIFORNIA EIR <i>Department of Conservation</i> 2013-2015</p>	<p>Mr. Birdsall prepared the air quality and GHG impact assessments in the EIR evaluating oil and gas well stimulation treatments throughout California, as required by Public Resources Code Section 3161 (b)(3) and (4) (Senate Bill 4 [Pavley]), as signed into law on September 20, 2013. Section 3161 (b)(3) and (4) requires the Division of Oil, Gas and Geothermal Resources (DOGGR) to evaluate the impacts of well stimulation treatments that may occur from either existing or future oil and gas wells, including hydraulic fracturing, acid fracturing and acid matrix stimulation.</p>
<p>OIL AND GAS LEASING AND DEVELOPMENT, DRAFT RESOURCE MANAGEMENT PLAN AMENDMENT AND EIS <i>Bureau of Land Management</i> 2015-2018</p>	<p>Developed background information on reasonably foreseeable oil and gas development trends in the BLM Central Coast Field Office territory of Monterey County, San Benito County, and Fresno County, and prepared impact analyses for air quality, atmospheric conditions, greenhouse gas emissions, and climate change.</p>
<p>PLAN TO PROVIDE RETAIL ELECTRIC SERVICE <i>South San Joaquin Irrigation District (SSJID)</i> 2005-2006, 2010-2014</p>	<p>Project manager for full environmental analyses for new provider of electric distribution service. Topics of assessment include how GHG emissions and energy conservation programs could be affected by change in system ownership, assessment of concurrent Municipal Services Review and Sphere of Influence, and analysis of Community Choice Aggregation (CCA) and as an alternative to allowing a change in retail electric service provider in southern San Joaquin County.</p>
<p>DESERT RENEWABLE ENERGY CONSERVATION PLAN EIR/EIS <i>California Energy Commission</i> 2014-2015</p>	<p>Mr. Birdsall provided senior review and analysis of the climate change and air quality topics, and he prepared responses to comments from the public and reviewing agencies and organizations.</p>
<p>SITING CASES – REVIEW OF APPLICATIONS TO CONSTRUCT POWER PLANTS <i>California Energy Commission</i> 2001-2018</p>	<p>Mr. Birdsall assists the California Energy Commission (CEC) as a technical specialist by reviewing and providing testimony on Applications for Certification (AFC) for new power plants throughout California, including natural gas-fired combined cycle, peaking, solar, and geothermal facilities. As a contractor for the Engineering Office of the Siting, Transmission, and Environmental Protection Division, he provided precedent-setting testimony for the CEC on the implementation of the California Global Warming Solutions Act of 2006 (AB 32) in the electricity sector. This work addresses the potential effects of new power plants on overall electricity system operation, achieving California’s GHG goals, avoiding deterioration of air resources, and offsetting power plant emissions.</p>

- Humboldt Bay Generating Station (2016-2018). Air quality review of changes in diesel fuel firing.
- Redondo Beach Energy Project (2012-2014). Provided air quality and GHG assessment support for a proposed 496 MW replacement power plant using fast-starting combined cycle technology.
- Pio Pico Energy Center (2011-2012). Provided air quality assessment support for proposed 300 MW power plant in San Diego County adjacent to the existing Otay Mesa Generating Project.
- Mariposa Energy Project (2009-2011). Lead technical staff for a 200 MW fast-starting simple cycle power plant capable of integrating renewable resources in eastern Alameda County.
- Oakley Generating Station (2009-2011). Lead technical staff for air quality and greenhouse gas assessment for a 624 MW fast-starting combined cycle power plant in Contra Costa County.
- Marsh Landing Generating Station (2008-2010). Lead technical staff for air quality and greenhouse gas assessment for new 760 MW fast-starting power plant in Contra Costa County.
- Avenal Power Center (2002, 2008-2009). Prepared precedent-setting greenhouse gas impact evaluation and air quality assessment for 600 MW combined cycle power plant in Kings County. Identified the roles played by fossil-fueled and renewable resources together in furthering California's GHG reduction goals.
- Tracy Combined Cycle Power Plant (2008-2010). Lead technical staff for air quality and greenhouse gas assessment for new 314 MW power plant in San Joaquin County.
- Turlock Irrigation District Almond 2 Power Plant (2009-2010). Lead technical staff for air quality and greenhouse gas assessment for new 174 MW simple cycle power plant near Ceres.
- Lodi Energy Center (2008-2010). Lead technical staff for air quality and greenhouse gas assessment for new 255 MW combined cycle power plant in Lodi.
- Vaca Station Power Plant (2008-2009). Lead technical staff for air quality and greenhouse gas assessment for new 660 MW combined cycle power plant near Vacaville, Solano County.
- San Joaquin Solar 1 and 2 (2008-2010). Lead technical staff for air quality and greenhouse gas assessment for two new solar and biomass hybrid power plants in Fresno County.
- Carrizo Energy Solar Farm (2009). Provided air quality and greenhouse gas assessment for proposed 177 MW solar thermal power plant in San Luis Obispo County.
- Bottle Rock Geothermal Power Plant (2006). Prepared air quality assessment to allow the re-firing of this 55 MW renewable energy facility after 15 years of non-operation.
- Eastshore Energy Power Plant (2006-2008). Lead technical staff for air quality assessment for new 116 MW power plant with 14 natural gas-fired engine generators in Hayward, Alameda County.

- Humboldt Bay Repowering Project (2006-2008). Lead technical staff for air quality assessment for new 163 MW power plant with 10 dual-fuel diesel/natural gas-fired engine generators in Eureka.
- Inland Empire Energy Center (2001-2003, 2005-2006). Lead technical staff for air quality assessment for original 670 MW and amendment for 810 MW combined cycle power plant near Romoland in Riverside County. The project is the first use of the General Electric H System in the US.
- Blythe Energy Project Phase II (2002-2006). Lead technical staff for air quality assessment and technical staff for water conservation program including cooling water supply and dry cooling system studies for new 520 MW combined cycle power plant and affiliated 118-mile transmission line in the Mojave Desert and Coachella Valley of Riverside County.
- Tesla Power Plant (2001-2004). Lead technical staff for air quality assessment and analysis of visible plumes and established major emissions offset program for new 1,120 MW combined cycle power plant and 11-mile recycled water pipeline in rural eastern Alameda County near Tracy.
- Palomar Energy (2001-2003). Lead technical staff for air quality assessment and supporting staff for cooling system studies for new 540 MW combined cycle power plant in northern San Diego County.
- Kings River Conservation District Peaking Power Plant (2003-2004). Lead technical staff for air quality assessment of new 97 MW simple cycle power plant in Fresno County.
- Russell City Energy Center (2001-2002). Lead technical staff for noise assessment of new 600 MW combined cycle power plant adjacent to shoreline recreational areas in Hayward.
- Los Esteros Critical Energy Facility (2001-2002). Lead technical staff for impacts of noise and visible plumes from new 180 MW simple cycle power plant adjacent to recreational areas in San Jose.

TECHNICAL STUDIES

California Energy Commission
2002-2018

Mr. Birdsall is also an author or contributor on special studies of energy issues.

- Energy Systems Planning: Siting, Transmission, and Environmental Protection Division (2016-2018). For the Strategic Transmission Planning Office, Mr. Birdsall provided deputy program management, engineering support, and technical assistance for energy facility and infrastructure planning, including technical support for the RETI 2.0 process.
- Transmission Options in Southern California (2013-2015). Prepared an environmental feasibility study for electric transmission options and potential corridor designations from Imperial County and Riverside County to Orange County and San Diego in response to closure of San Onofre Nuclear Generating Station (SONGS). Documented potential overland transmission line corridors and the feasibility of building offshore submarine high voltage direct current (HVDC) cable corridors in the Pacific Ocean to connect the Southern

California Edison (SCE) and San Diego Gas and Electric (SDG&E) electrical transmission systems.

- Biomethane Additionality Study (2012). Developed comparisons of landfill gas, digester gas, and other biogas emission factors in various applications as an alternative to pipeline quality gas.
- California Credit Policies: Lowering the Effective Cost of Capital for Generation Projects (2006). Prepared workshop report exploring policy options for transforming power procurement and credit policies to encourage power plant development in California and manage the risk of project failure.
- WESTCARB Environmental Documentation and PIER Global Climate Change Research (2006). Supporting technical staff for impact assessment of greenhouse gas sequestration test cases.
- Relative Cost Differences Between Anhydrous and Aqueous Ammonia Systems for Power Plants (2004). Supervising editor for cost comparison on air pollution control systems minimizing use of hazardous materials.
- 2003 Environmental Performance Report (2003). Technical and editorial review for environmental performance and natural gas market outlook portions of the first Integrated Energy Policy Report for the Governor and Legislature.
- Upgrading California's Electric Transmission System: Issues and Actions for 2004 and Beyond (2004). Technical author on Alternatives to Transmission chapter and overview of Transmission Planning in California in support of 2004 Integrated Energy Policy Report Update.
- Air Quality Compliance (2003). Analyzed modifications to permit conditions at the Moss Landing Power Plant. Prepared independent analysis of permit requirements and environmental consequences of increasing the capacity of the Midway-Sunset Cogeneration Project.
- Alternative Cooling Technology Studies (2002-2003). Supporting staff for analyses of water conservation through dry cooling and hybrid cooling alternatives for the Cosumnes Power Plant and Palomar Energy Project. Coordinated and edited documentation from design engineers and other specialists.

CEQA DOCUMENTS AND ENERGY STUDIES

California Public Utilities Commission
2002-2016

Mr. Birdsall is also an author or contributor on special studies of energy issues.

- West of Devers Upgrade (2013-2016). Coordinator for transmission planning and engineering alternatives in the environmental review to access desert-area generation. Directed the independent power flow modeling work and structural design review with the goal of identifying feasible alternatives to partially rebuild the corridor, develop the project in longer term phases, or provide a plan of service to replace the project altogether. Assessed noise, air quality, and GHG impacts.
- Embarcadero-Potrero 230 kV Transmission Project (2012-2014). Deputy Project Manager and coordinator of transmission planning

and engineering alternatives in the environmental review of this underground and submarine transmission line in the San Francisco Bay for improving reliability in downtown San Francisco. Conducted the review of health effects, noise, air quality, and GHG.

- Long-Term Procurement Plan Guidelines and Renewable Portfolio Standard Implementation (2008-2011). Developed timelines of permitting and identified barriers to implementing the 33 percent Renewable Portfolio Standard (RPS), including ranking and screening of available energy resources. Surveyed historical transmission build-out timelines, based on experiences of the California Independent System Operator (CAISO), CPUC, and other cooperating agencies. Mapped and scored renewable resources from the Renewable Energy Transmission Initiative (RETI) process and CPUC Energy Division database for environmental concern and permitting risk.
- Sunrise Powerlink 500 kV Transmission Line (2006-2011). Coordinator for transmission planning and engineering alternatives in the environmental review. Assessed GHG results of production cost modeling and analyzed net GHG emissions and climate change effects for multiple renewable and conventional generation and transmission scenarios. Developed mitigating actions and carbon offset strategies that were adopted in advance of AB 32 implementation.
- Colorado River Substation (2011). Analysis of GHG emissions, including indirect effects of renewable energy production and fossil fuel displacement, for the CPUC's Supplemental EIR evaluating new 500 kV substation design and location in eastern Riverside County.
- Desert Sunlight Solar Farm/Red Bluff Substation (2011). Peer review of fugitive dust issues and construction equipment controls for a 550 MW solar power plant near Joshua Tree National Park.
- Devers-Palo Verde 500 kV #2 Transmission Line (2005-2006). Coordinator for transmission planning and engineering alternatives in the environmental review of this major transmission upgrade between the Phoenix area and urban Riverside County to deliver low-cost, out-of-state power.
- San Onofre Nuclear Generating Station and Diablo Canyon Power Plant, Steam Generator Replacement Projects (2004-2005). Deputy Project Manager for two comprehensive Environmental Impact Reports to fulfill CEQA requirements for major investments in the Diablo Canyon and SONGS nuclear power plants, with analyses of potential shutdown, replacement facilities, and extension of life.
- Miguel-Mission 230 kV #2 Transmission Line (2003-2004). Conducted the air quality and noise review for a system that would reduce transmission constraints between San Diego County and generators within the US and Mexico. Supervised the engineers studying impacts to traffic and transportation, the transmission system design, and public health.
- Jefferson-Martin 230 kV Transmission Line (2003-2004). Prepared air quality and noise studies and provided oversight of health effects

	analyses for construction and operation of a 27-mile transmission line through urban and rural San Mateo County. The project passes through the Cities of Burlingame, Millbrae, San Bruno, South San Francisco, Brisbane, Colma, and Daly City to serve the projected electric demand in San Francisco.
<p>CONFIDENTIAL PROJECT(S) <i>Confidential Client(s)</i> 2015-2018</p>	Mr. Birdsall prepares analyses, technical studies, presentations, and reports on the feasibility and the impacts of developing renewable energy, energy storage, transmission and distributed energy resources as driven by California's RPS and GHG goals.
<p>SAN LUIS TRANSMISSION PROJECT EIS/EIR <i>Western Area Power Administration/San Luis & Delta Mendota Water Authority</i> 2015-2017</p>	Air quality, general conformity, GHG, and noise analyses with Voluntary Emission Reduction Agreement (VERA) for construction and operation of 95 miles of new transmission lines in western San Joaquin Valley, to serve pumping and generating facilities along the California Aqueduct and the Delta-Mendota Canal.
<p>SANTA MARGARITA QUARRY EXPANSION PROJECT EIR <i>San Luis Obispo County</i> 2014-2015</p>	Reviewed public records and baseline activities in order to prepare an emissions inventory and impact analysis for air quality and greenhouse gas emissions to expand the aggregate products quarry and add reserves.
<p>RENEWABLE ENERGY STREAMLINING PROGRAM AND EIR <i>San Luis Obispo County</i> 2013</p>	Analysis of electric transmission and distribution systems and interconnection processes for a county-wide Opportunities and Constraints Technical Study to determine Renewable Energy Development Areas for siting of small-scale renewable energy. The analysis would be used for updating or establishing renewable energy policies, a Renewable Energy Combining Designation for the County General Plan Open Space Element, and a Renewable Energy Ordinance in a process funded by the CEC.
<p>BURNING MAN 2012-2016 ENVIRONMENTAL ASSESSMENT <i>Bureau of Land Management</i> 2011-2012</p>	Developed technical memoranda on community noise, air quality, and a greenhouse gas emissions inventory for the annual Burning Man Event for the five-year review conducted by the BLM Winnemucca Field Office and Black Rock City LLC.

PREVIOUS EMPLOYMENT

EIP Associates (1998-2001). As a Senior Environmental Scientist at EIP Associates, Mr. Birdsall performed comprehensive analyses of air quality and noise impacts for Environmental Impact Reports/Statements and independent studies.

Trinity Consultants (1994-1998). Mr. Birdsall prepared compliance strategies, evaluated modeled impacts, and negotiated air permits while a Project Supervisor at Trinity Consultants, an environmental firm specializing in air quality. Mr. Birdsall advised clients in the industries of municipal solid waste

landfills and landfill gas to energy, independent power production, open-pit metallic mineral mining, major natural gas pipelines, and upstream natural gas processing.

PROFESSIONAL AFFILIATIONS AND AWARDS

- Panelist, Offsets for Environmental Mitigation, Navigating the American Carbon World 2014
- Professional Engineer (Mechanical, California #32565)
- Qualified Environmental Professional, Institute of Professional Environmental Practice (#03030005)
- 2001 Outstanding Performance Award presented by the California Energy Commission
- Air and Waste Management Association since 1994
- Tau Beta Pi, National Engineering Honor Society

NOISE IMPACT ASSESSMENT EXPERTISE

- Federal Highway Administration Traffic Noise Model
- California Department of Transportation Traffic Noise Model (SOUND32)
- FTA Transit Noise Assessment and Mitigation Methodology

AIR QUALITY MODELING EXPERTISE

AERMOD; CAL3QHCR; CALINE4; ISC; CTDM; CalEEMod; EMFAC; TANKS; Landfill Gas Emissions Model

ADDITIONAL TRAINING AND COURSES

- Climate Change, A New Age for Land Use Planning, U.C. Davis Extension
- Fundamentals of Noise and Vibration for the California Energy Commission
- Expert Witness Training, California Energy Commission
- Co-Instructor, Air Permitting Issues for Municipal Solid Waste Landfills, Trinity Consultants
- Fundamentals of New Source Review Workshop, Air and Waste Management Association
- Title V and Compliance Assurance Monitoring Workshops, Air and Waste Management Association
- NATO Advanced Studies Institute, Wind Climates in Cities
- Graduate-level Coursework: Solar Energy Conversion, Wind Engineering, Reciprocating and Centrifugal Engines, Computational Fluid Dynamics, Scalar Transport

**DECLARATION OF
Huei-An (Ann) Chu, Ph.D.**

I, Huei-An (Ann) Chu, declare as follows:

1. I am employed by the California Energy Commission as an Air Resources Engineer in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Air Quality**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: Huei-An Chu

At: Sacramento, California

Huei-An (Ann) Chu

1516 Ninth Street, MS-46, Sacramento, CA 95814
Phone: 916-651-0965, Email: Ann.Chu@energy.ca.gov
Citizenship Status: U.S. Citizen

EDUCATION

PhD, Environmental Sciences and Engineering, 05/2006
School of Public Health, University of North Carolina at Chapel Hill
Area of Specialization: Environmental Risk Assessment, Environmental Management and Policy, Risk-Based Regulation, Biostatistics, Environmental Epidemiology

MEM, Environmental Management, 05/2000
School of Forestry and Environmental Studies, Yale University, New Haven, CT

MS, Environmental Engineering, 06/1998
National Taiwan University, Taipei, Taiwan

BA, Geography, with honors, 06/1996
National Taiwan University, Taipei, Taiwan

SKILLS

Language: Fluent in Chinese and English.

Computer software and programming skills: Hotspot Analysis Reporting Program (HARP), SAS, Stata, Minitab, ArcGIS, Stella, Crystal Ball, ISC, Microsoft Excel, PowerPoint, Word.

WORK EXPERIENCE

Air Resources Engineer, California Energy Commission, 1/12/2012 - Present

- Independently performs responsible, varied analyses assessing impacts from thermal power plants 50 megawatts and larger and the plants related facilities such as emergency engines and transmission lines, etc.
- Task scopes include public health impacts and transmission line safety and nuisance.
- Model air quality and public health impacts of stationary sources using HARP (Hot Spot Analysis and Reporting Program).
- Identify air quality and public health impacts of stationary sources and measures to mitigate these impacts following California Environmental Quality Act and regulations of US EPA (including the National Environmental Policy Act), ARB, and the Districts.
- Identify safety issues and nuisance impacts of transmission lines and measures to mitigate these impacts following guidelines of California Public Utilities Commission (CPUC) and Federal Aviation Administration (FAA).
- Collect, analyze, and evaluate data on the effects of air pollutants and power plant emissions on human health, and the environment.
- Ensure conditions of certification are met and recommending enforcement actions for violations.

Research Associate, Taiwan Development Institute, 10/01/2010 – 12/31/2011

- Provided professional consultation for the environmental risk assessment of Taiwan's techno-industrial development initiatives
- Reviewed the environmental risk assessment reports of Taiwan's techno-industrial development initiatives
- Presented in various distinguished lecturer series about environmental risk assessment

Consultant, Chu Consulting, 08/2007 - 07/2010

- Conducted a cumulative risk assessment to evaluate the risk associated with the emissions of VOCs from a petrochemical plants in southern Taiwan
- Used EPA's ISC3 model (based on Gaussian dispersion model) to simulate the dispersion and deposition of VOCs from this petrochemical plant to the neighboring areas, then used ArcGIS to spatially combine the population data and VOC simulation data (and further calculated risks)
- Built a framework of risk-based decision making to set the emission levels of VOCs to reduce people's exposure and the risk of experiencing health problems
- Presented in conference: SRA 2007
- Awarded: CSU-Chico BBS Faculty Travel Funds (2007)

Environmental Justice Intern, Clean Water for North Carolina (CWFNC), Summer, 2005

- Reviewed and critiqued key state environmental policies and the federal EPA Public Participation Policy.
- Interviewed impacted communities, member organizations of the NC Environmental Justice Network, state policy officials about how those policies are actually implemented.
- Wrote a report about the survey and review of environmental justice needs for key state policies.
- Report Publication: "Achieving Environmental Justice in North Carolina Public Participation Policy" (Aug, 2005).

Volunteer, New Haven Recycles and Yale Recycling, 08/1998 – 05/2000

- Promoted recycling and conservation
- Checked trash cans (chosen randomly) and recycling bins at each entryway of residential college, then gave grades.

Volunteer, Urban Resource Initiative (URI), Summer, 1998

- Planted trees for local community of New Haven for a better and sustainable environment

RESEARCH EXPERIENCE

Postdoctoral Research

Department of Public Health Sciences, University of California, Davis, 07/01/2010 – 09/30/2012

Research advisor: Dr. Deborah H. Bennett and Dr. Irva Hertz-Picciotto

- Work on two projects: NIEHS-funded ***Childhood Autism Risks from Genetics and Environment (CHARGE)*** and EPA-funded ***Study of Use of Products and Exposure Related Behavior (SUPERB)***.
- Perform statistical and quantitative analyses with SAS to analyze collected house dust data and children's urine concentrations of metabolites.
- Conduct exposure assessment to investigate if pesticides, flame retardants, and phthalates are risk factors for children autism.
- Conduct exposure assessment to explore the relationships between children's exposure to phthalate, benzophenone-3 (oxybenzone), triclosan, and parabens, and the use of personal care products.
- Produce scholarly peer-reviewed publications of methodology and findings, and write the final reports of both projects.

Carolina Environmental Program, University of North Carolina at Chapel Hill, 01/01/2006 – 12/31/2006

Research advisor: Dr. Douglas J. Crawford-Brown

- Applied a framework of risk-based decision-making to perchlorate in drinking water. (Awarded: SRA Annual Meeting Travel Award 2006)
- Conducted a material and energy flow analysis (MEFA) to quantify the overall environmental impact of Bank of America operations, and quantitatively analyze the strategies BOA might adopt to reduce these impacts and achieve sustainability. (Report Publication: "Environmental Footprint Assessment")

Doctoral Research, 08/2000-12/2005

Department of Environmental Sciences and Engineering, School of Public Health, University of North Carolina at Chapel Hill

Research advisor: Dr. Douglas J. Crawford-Brown

- Dissertation topic: **“A framework of Risk-Based Decision Making by Characterizing Variability and Uncertainty Probabilistically: Using Arsenic in Drinking Water as an Example”**.
- Conducted risk assessment for arsenic in drinking water.
- Conducted theoretical analysis on the variability and uncertainty issues of risk assessment.
- Conducted a meta-analysis to improve dose-response assessment.
- Conducted analytical and numerical analysis to build a new framework of risk-based decision-making which can be applied coherently across the regulation decisions for different contaminants.
- Presented in conferences: APPAM (2004), SRA (2004, 2005 and 2006), DESE Seminar (2005), CEP Symposium on Safe Drinking Water (2006).
- Awarded: SRA Annual Meeting Student Travel Award (2004 & 2005), UNC-CH Graduate School Travel Grants (2004), UCIS Doctoral Research Travel Awards (2002).

Master’s Research

School of Forestry and Environmental Studies, Yale University, 08/1999 - 06/2000

Research advisor: Dr. Xuhui Lee

- Master’s project: **“Forest Stand Dynamics and Carbon Cycle”**.
- Research project: “Monitoring Forest CO₂ Uptaking”
- Used remote sensing (ERMapper) to investigate the role of forest in the uptake of CO₂.
- Awarded from Teresa Heinz Scholars for Environmental Research Program (2000) and Klemme Award (1999).

Graduate Institute of Environmental Engineering, National Taiwan University, 06/1996 - 06/1998

Research advisor: Dr. Shang-Lien Loh

- Master’s thesis: **“The Loads of Air Pollutants from Urban Areas on a Neighboring Dam and its Water Quality”**
- Research Projects: “Research on Air Pollutant Deposition in Urban Areas” and “the Fate and Flow of Recyclable Materials”
- Used Gaussian’s Dispersion model (ISC3) to investigate the loads of air pollutants on dam water.

TEACHING EXPERIENCE

Lecturer

Department of Environmental Studies, California State University at Sacramento

- Environmental Politics and Policy, Fall 2011

Department of Geological & Environmental Science, California State University at Chico

- Environmental Risk Assessment, Spring 2009 & 2010
- Applied Ecology, Spring 2008
- Pollution Ecology, Fall, 2007

Department of Geography & Planning, California State University at Chico

- Seminar in Applied Geography & Planning – Environmental Regulation and Policy, Fall, 2007

Department of Forestry and Environmental Resources, North Carolina State University

- Environmental Regulation, Fall, 2006

Teaching Assistant

Department of Environmental Sciences and Engineering, UNC-Chapel Hill

- Environmental Risk Assessment, Spring, 2002
- Introduction to Environmental Science, Fall, 2001
- Analysis and Solution of Environmental Problems, Fall, 2001

Lab Instructor

Department of Environmental Sciences and Engineering, UNC-Chapel Hill

- Biology for Environmental Science, Fall, 2000

Graduate Institute of Environmental Engineering, National Taiwan University

- Water Quality Analysis, Fall, 1997

AWARDS and HONORS

- CSU-Chico BBS Faculty Travel Funds, 2007
- Member of Society of Risk Analysis (SRA), 2006-2008
- SRA Annual Meeting Student Travel Award, 2004-2006
- UNC-CH Graduate School Travel Grants, 2004
- Member of Association for Public Policy Analysis and Management (APPAM), 2004-2005
- UCIS Doctoral Research Travel Awards, 2002
- Graduate Student Teaching and Research Assistantships, 2000-2005
- Teresa Heinz Scholars for Environmental Research Program, 2000
- Yale Forestry & Environmental Studies, Klemme Award, 1999

**DECLARATION OF
Tao Jiang, Ph.D., P.E.**

I, Tao Jiang, declare as follows:

1. I am employed by the California Energy Commission as an Air Resources Engineer in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony developed in the Initial Study and Proposed Mitigated Negative Declaration, and Staff Responses to BAAQMD comments involving the Mission College Data Center in the technical area(s) **Greenhouse Gas Emissions**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: 

At: Sacramento, California

Tao Jiang, Ph.D., P.E.

Professional Experience

Air Resources Engineer

(Jan. 2009 – Present)

California Energy Commission, Siting Transmission and Environmental Protection Division

Act as air quality technical lead on power plant siting projects and related linear facilities, including Abengoa Mojave Solar, Ridgecrest Solar Millennium, Almond 2 Power Plant, Pio Pico Energy Center, Huntington Beach Energy Project, Sonoran Energy Project, Pomona Repower Project and Stanton Reliability Energy Center. Also be responsible for compliance work of 26 power plants in construction and operation. Specific responsibilities include the following:

- Analyze the impacts of the construction and operation of large power generation projects and related linear facilities on air quality, Green House Gas and climate change
- Determine the conformance to applicable U.S. EPA, CARB and local air district regulations and standards
- Investigate and recommend appropriate emission mitigation measures
- Prepare air quality staff assessments and technical testimony
- Develop and monitor air quality compliance plans
- Review and evaluate U.S. EPA, CARB, and local air district air quality rules and regulations
- Collect, analyze and evaluate data for the effects of air pollutants and power plant emissions on human health, vegetation, wildlife, water resources and the environment
- Develop, recommend, and implement statewide planning and policy initiatives for the Energy Commission and Governor

Research assistant

(Sep. 2004 – Dec. 2008)

University of California, Riverside, Chemical & Environmental Engineering

- Investigated phase behavior of colloidal particles
- Study mediated colloidal interactions in the particle dispersions
- Build and evaluate models for gas molecules and particulate matters
- Conduct computer simulation and modeling for gas molecules and particulate matters

Education

PhD	Chemical & Environmental Engineering, University of California, Riverside (August, 2008)
ME	Materials Science and Engineering, Beijing University of Chemical Technology (June, 2003)
BE	Materials Science and Engineering, Beijing University of Chemical Technology (June, 2000)

DECLARATION OF
Tia Taylor

I, Tia Taylor, declare as follows:

1. I am employed by the California Energy Commission as a Planner II in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Biology**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California



TIA MIA TAYLOR STAFF BIOLOGIST/ PLANNER I

Education, Certification & Associations

- Bachelor of Science, Environmental & Resource Science, University of California Davis (2010)
- Associate of Science, Mathematics & Physical Science, American River College, (2007)

Experience

California Energy Commission (CEC) – from 2015 to Present

Staff Biologist

Under Warren-Alquist Act, Ms. Taylor reviews applications to permit and build new thermal power plants throughout California, and performs California Environmental Quality Act (CEQA) equivalent analyses to assess effects on biological resources. Ms. Taylor serves as an in-house expert in project approval, construction and compliance monitoring on projects ranging in scale from 50 megawatts (MW) to 1,100 MW in generating capacity. Her work includes establishing and maintaining relationships with colleagues at other government agencies such as California Department of Fish and Wildlife (CDFW), US Fish and Wildlife Service (USFWS), US Army Corps of Engineers (USACE) and coordinating with these contacts to make sure power plants are in compliance with CDFW 1600 and 2081 permits, USFWS Section 7 consultations and Section 10 permits, and Clean Water Act 404 permits and 401 certifications.

Select Projects

Palmdale Power Plant - Palmdale, San Bernardino County, CA. Served as lead author of the biological resources analysis for a petition to amend the original CEC license for a 645 MW power generation facility. Ms. Taylor was responsible for coordinating the biological resources review with outside agencies including CDFW and USFWS, and completing a complex review and mitigation plan for potential take resulting from the project of southwestern willow flycatcher based upon new evidence for the species not known at the time of the original Decision. In addition, during the review of the amended project Ms. Taylor recognized inadvertent errors which were overlooked in the original Decision's computation of required mitigation acres for the Mohave ground squirrel and Swainson's hawk. The correction of these errors for the amended project resulted in an additional 10 mitigation acres required for Mohave ground squirrel and 61 mitigation acres required for Swainson's hawk. In order to accurately determine the total amount of acres of each vegetation community permanently lost Ms. Taylor created an ArcGIS map comparing the original project to the amended project which was published in the Final Staff Assessment.

Alamitos Energy Center – Long Beach, Los Angeles County, CA. Ms. Taylor was a contributing author in writing the biological resource section of the CEC license, which included analysis of the application for certification provided by the project owner. Ms. Taylor serves as lead for the biological resources mitigation monitoring and compliance activities for this 1,040 MW gas-fired generating facility currently in the final stages of construction. In this role her responsibilities include monthly assessment of compliance with project conditions of approval pertaining to plant and wildlife avoidance and conservation, coordinating with the owner's



biological experts to resolve issues requiring attention at the site, and conducting regular field visits to assess implementation of and adherence to project mitigation measures. Most recently she is working with the CDFW and the Designated Biologist onsite to adjust current best practices concerning the protection and monitoring of the burrowing owl due to the project site now being recognized as burrowing owl habitat.

Huntington Beach Energy Center (HBEP) – Huntington Beach, Orange County, CA. The HBEP is a 844 MW gas-fired power facility currently under final stages of construction within an existing power plant site proximate CA Highway 1 and the State Beach. In addition to her compliance and monitoring responsibilities for the construction as lead biologist for this facility, she serves as the lead on CEC coordination, review and approval of activities and an annual budget on the adjacent Huntington Beach Wetlands Conservancy, a restoration project required as mitigation for the original facility. Ms. Taylor conducts monthly review of monitoring reports and activities and participates in construction site visits to confirm adherence to the project Biological Resources Mitigation Implementation and Monitoring Plan. Most recently she is working with the CDFW and the Designated Biologist onsite to adjust current best practices concerning the protection and monitoring of the burrowing owl due to the project site now being recognized as burrowing owl habitat.

Stanton Energy Reliability Center – Stanton, Orange County, CA.

Ms. Taylor was a contributing author of the Preliminary Staff Assessment for the submitted application to build this 98 MW facility consisting of two Hybrid EGT™ General Electric LM6000-based Electric Gas Turbines and a 10-megawatt integrated battery storage component. She assisted in reviewing and editing documents pertaining to the CEC licensing process. Ms. Taylor attended the initial site visit and public hearing for support or opposition of the power plant by community members in Stanton, CA. Ms. Taylor now serves as lead for the biological resources mitigation monitoring and compliance activities for this energy center, which began construction on January 31, 2019. Ms. Taylor has also analyzed and processed two staff approved project modifications for additional construction laydown and parking areas since site mobilization.

McLaren Advantage Data Center – Santa Clara, Santa Clara County, CA.

Ms. Taylor was a contributing author for the process of completing an Initial Study and Mitigated Negative Declaration for this 98.7MW facility comprised of multiple diesel back-up generators that qualifies for the Small Power Plant Exemption (SPPE) with the CEC since it will produce less than 100MW in energy. This includes responsibilities of analyzing, reviewing, writing and editing documents pertaining to this CEC SPPE process.

DECLARATION OF Gabriel Roark

I, Gabriel Roark, declare as follows:

1. I am employed by the California Energy Commission as a Senior Environmental Planner in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Cultural and Tribal Cultural Resources**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California

GABRIEL ROARK, M.A.

Archaeologist

Since 1999, Mr. Roark has directed and conducted cultural resource investigations for projects involving the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and Section 106 of the National Historic Preservation Act (NHPA). Mr. Roark possesses extensive professional experience in prehistoric archaeology, historical archaeology, and regulatory compliance, routinely serving as the project manager and technical lead on several projects simultaneously. He specializes in the design and implementation of archaeological monitoring programs, archaeological surveys and excavations, archival research, and CEQA and Section impact analyses. His Section 106 experience includes drafting memoranda of agreement, programmatic agreements, and historic properties treatment plans.

Mr. Roark currently serves as the technical senior in the Cultural Resources Unit of the California Energy Commission's Siting, Transmission, and Environmental Protection Division. In addition to cultural resource analyses for power plant applications under the Warren-Alquist Act, Mr. Roark provides quality control and assurance for the work of the Cultural Resources Unit staff.

Professional Employment History

State Energy Resources Conservation and Development Commission (California Energy Commission). Senior Environmental Planner (Cultural Resources). May 1, 2019–present.

State Energy Resources Conservation and Development Commission (California Energy Commission). Planner II (Cultural Resources). June 1, 2012–April 30, 2019.

ICF International. Senior Associate (Archaeologist). February 23, 1999–May 30, 2012.

Years of Experience

- Professional start date: 02/23/1999

Education

- MA, Anthropology, California State University, Sacramento, 2009
- BA, Anthropology, California State University, Sacramento, 1999

Special Training

- Cascade Range Archaeological Project, Crew Chief, California State University, Sacramento, 1999
 - Archaeological Field School, Mammoth Lakes, California State University, Sacramento (Dr. Mark E. Basgall, Director), 1999
 - Anthropology 199: Introduction to Analysis of California Gold Rush Chinese Ceramics, Independent Study, California State University, Sacramento (Dr. Jerald J. Johnson, Instructor), 1999
 - Anthropology 195A and 192: Fieldwork and Laboratory Work in Archaeology, Coloma, California State University, Sacramento (Dr. Jerald J. Johnson and Dr. Tom Strasser, Instructors), 1997
-

DECLARATION OF Shahab Koshmashrab

I, Shahab Koshmashrab, declare as follows:

1. I am employed by the California Energy Commission as a Supervising Mechanical Engineer in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Energy/Energy Resources**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California

Shahab Khoshmashrab, P.E.
Senior Mechanical Engineer

Professional Experience

2001-Current—Senior Mechanical Engineer – Siting, Transmission, and Environmental Protection Division – California Energy Commission

- Perform analysis of, and address complex engineering issues related to, generating capacity, power plant reliability, energy efficiency, noise and vibration, jurisdictional determination, and the mechanical, civil, electrical, and structural aspects of power plants' licensing, construction, and operation.
- Review and evaluate projects to ensure compliance of power plants and related facilities with applicable laws, ordinances, regulations, and standards and California Environmental Quality Act.
- Assist the California Energy Commission in policy making related to electricity generation.

1998-2001—Structural Engineer – Rankin & Rankin

Engineered concrete foundations, structural steel and sheet metal of various building structures including energy related structures such as fuel islands. Performed energy analysis/calculations of such structures and produced both structural plans and detailed shop drawings using AutoCAD.

1995-1998—Manufacturing Engineer – Carpenter Advanced Technologies

Managed manufacturing projects of various mechanical components used in high tech medical and engineering equipment. Wrote and implemented QA/QC procedures and occupational safety procedures. Conducted developmental research of the most advanced manufacturing machines and processes including writing of formal reports. Developed project cost analysis. Developed/improved manufacturing processes.

Education

- California State University, Sacramento-- Bachelor of Science, Mechanical Engineering
- Registered Professional Engineer (Mechanical), California License No. M 32883, Exp. 9/30/2018

**DECLARATION OF
Laiping Ng**

I, Laiping Ng, declare as follows:

1. I am employed by the California Energy Commission as an Associate Electrical Engineer in the Energy Assessments Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Energy/Energy Resources**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California

Laiping Ng
Associate Electrical Engineer

Education:

Master of Science: Electrical Engineering - Power
California State University, Sacramento

Bachelor of Science: Electrical Engineering - Power
California State University, Sacramento

Power Certificate – EPRI

Experience:

April 1999 – Present:

- Review and evaluate electrical transmission system sections of the application to ensure that the transmission engineering aspects of the power plant, switchyards, substations, and the related facilities comply with applicable laws, ordinances, regulations, and standards (LORS).
- Prepare written analysis, which address the issues of the adequacy of proposed projects to meet applicable LORS.
- Perform load flow studies and fault analysis.
- Coordinate with CAISO, WSCC and other regulatory agencies and coordinate with utilities companies in the review and evaluation of the power plant siting process.

May 1991 – April 1999:

- Prepared engineering bid specifications for recommended lighting and HVAC projects. Evaluated contractor bids and recommended contractors to customers. Reviewed RFPs and RFQs. Evaluated, selected, and managed engineering consultants. Administrated and coordinated contracts.
- Designed electrical systems for indoor and outdoor lighting and lighting controls. Assisted in design cooling systems and controls for school buildings and office buildings. Reviewed and checked electrical lighting designs and drawings. Analyzed designs and made recommendations for effective actions.
- Performed facility energy audits and field surveys on schools, offices, hospitals and county jail facilities to identify energy efficiency improvements and cost estimate with respect to lighting and HVAC systems. Inspected lighting and HVAC system equipment installation.
- Worked in a Nonresidential Energy Efficiency Standards development team. Prepared and updated Standards concentrating on interior building illumination and indoor and outdoor flood lighting.

DECLARATION OF Kenneth Salyphone

I, Kenneth Salyphone, declare as follows:

1. I am employed by the California Energy Commission as a Mechanical Engineer in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I have reviewed all of staff's previous testimony for the Mission College Data Center Initial Study in the technical areas of **Energy Resources** and **Appendix A – Project's Jurisdictional and Generating Capacity Analysis**.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California

Kenneth Salyphone

916.654.4658

1516 9th Street Sacramento CA 95814

kenneth.salyphone@energy.ca.gov

PROFESSIONAL EXPERIENCE:

Mechanical Engineer

California Energy Commission, Sacramento CA

12/2020 – Present

Mechanical Design Engineer, Lead

Micron Technology, Inc., Folsom CA

12/2017 – 12/2020

Mechanical Design Engineer

Micron Technology, Inc., Folsom CA

12/2013 – 12/2017

Mechanical Design Engineer, Intern

Micron Technology, Inc., Folsom CA

06/2013 – 12/2013

EDUCATION:

Master of Science in Mechanical Engineering, CSU Sacramento, 2013

Bachelor of Science in Mechanical Engineering, CSU Sacramento, 2010

CERTIFICATION/LICENSE:

Engineer-In-Training (EIT) Certified # 149129

WHAT I DO:

- Prepare analyses of facility design code compliance, noise and vibration, power plant efficiency, generating capacity determination, and power plant reliability aspects of power generation plants and related facilities. Includes evaluating facility design; potential impacts and appropriate mitigation measures; and determining the ability of the facility to comply with applicable laws, ordinances, regulations, and standards
- Review and evaluate the mechanical engineering and related aspects of equipment as applied to thermal power plants related facilities. Includes the evaluation of system and equipment design, performance and reliability, as well as alternatives to the proposed facility.
- Develop compliance monitoring requirements and verifications related to noise and vibration and facility design to ensure that proposed facilities are properly constructed and operated in accordance with Energy Commission certification requirements.
- Monitor construction and operation of licensed facilities to assure their conformance with licensing requirements.
- Evaluate the efficiency and reliability implications of energy generation, supply, and end use strategies as input energy policy development.
- Evaluate existing and proposed governmental laws, ordinances, regulations, standards, and policies as they pertain to power plant design.

MEMBERSHIPS AND AFFILIATIONS:

- Member of Tau Beta Pi
- Member of the American Society of Mechanical Engineers

DECLARATION OF
Garry Maurath, Ph.D., P.G., CHG.

I, Garry Maurath, declare as follows:

1. I am employed by the California Energy Commission as an Engineering Geologist in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Geology/Soils** and **Minerals**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020

Signed: 

At: Sacramento, California

Garry Maurath, Ph.D., P.G., CHG
Engineering Geologist

Experience Summary

Dr. Maurath has 40+ years of experience in the design, management, and execution of geologic, hydrogeologic, geotechnical, geophysical, geothermal, and environmental investigations. Dr. Maurath has conducted numerous licensing studies and performed feasibility studies, site assessments, and construction support for power plants, hazardous waste facilities, dams, canals, tunnels, levees, high-temperature geothermal projects, strategic fuel depots, solid waste landfills, hazardous, toxic and radioactive waste (HTRW) facilities, and both permanent and tactical military infrastructure. He has been responsible for examining and evaluating present and potential geology, paleontology, hydrogeology, and environmental conditions for the planning, design, construction, maintenance, and/or clean-up of numerous facilities. This work has been performed in urban, rural, and remote settings.

His work has included CERCLA and RCRA site remedial investigations and feasibility studies, surface geologic mapping in volcanic, metamorphic, and sedimentary terrain, surface geophysical surveys, borehole siting, drilling, logging, aquifer evaluation and testing, subsurface mine evaluations, mine sampling, construction dewatering, and mercury soil surveys. Dr. Maurath has been responsible for the execution of hazardous waste, low-level, and high-level radioactive waste projects within local, state and federal regulatory guidelines in US EPA regions III, V and IX. He has been involved in the preparation of NEPA and CEQA documentation, EISs, EIRs, NDs, MNDs, NPDES permits, and numerous license applications for the Federal Energy Regulatory Commission and the California Energy Commission.

Dr. Maurath has been a senior scientist and managed projects for small, medium, and large size companies; local, state, and federal government agencies; and non-profit organizations. He has worked with or for SMUD, PG&E, Calpine, LADWP, MWD, DWR, California Geological Survey, U.S. Army Corps of Engineers, and several DOE facilities/national laboratories, including Los Alamos, SANDIA, INEL, Savannah River, Moxey Flats, and Hanford. His career has given him the opportunity to work in more than 26 states and 21 countries throughout the world.

Selected Project Experience [technical position/project name/location/lead agency or owner]

- Engineering Geologist, North of the Delta Off-stream Storage (NODOS) Project [Sites], US Bureau of Reclamation
- Engineering Geologist, North Umpqua River Project, Roseburg, Oregon
- Engineering Geologist, Piñon Pine Power Project, Sierra Pacific Power Company
- Engineering Geologist, Protected Fuel Depots Feasibility Study, Kuala Lumpur, Malaysia, Malaysian Ministry of Defense
- Engineering Geologist, Sanitary Landfill Siting Investigation, Fort Drum, New York, US Army Corps of Engineers
- Engineering Geologist, Sharp Army Depot Building S-4 Geohazard Assessment, US Army Corps of Engineers
- Engineering Geologist, Site Characterization of Superconducting Super-Collider (SSC) Sites, New York, NY UDC.
- Engineering Geologist, Union Valley Penstock Bifurcation Study, Upper American River, CA, SMUD
- Engineering Geologist, Upper Gorge Bypass Power Plant, Los Angeles Department of Water and Power
- Environmental Geologist, Gardena Sumps, Gardena, California, Atlantic Richfield
- Environmental Geologist, Low-level Radioactive Waste Disposal Site, Moorehead, KY, Moxey Flats Steering Committee.
- Environmental Geologist, Regulatory Compliance and Emergency Reporting Requirements, EG&G
- Field Coordinator, Feather River West Levee Rehabilitation Project, Sutter Butte Flood Control Agency and CA DWR
- Geochemist, Office of Nuclear Waste Isolation Licensing Project Manager, Columbus, OH, Battelle Memorial Institute
- Geologist – Geology and Soils, Supplemental CEQA Document - Slab Creek, SMUD.
- Geologist, Alternative Energy Feasibility Study, Ohiopyle State Park, Pennsylvania, PA Department of Natural Resources
- Geologist, Assessment of Geothermal and Precious Metal Prospects, Western United States, AMAX Exploration
- Geologist, Clearlake Hot Dry Rock Demonstration Project, Clearlake, CA, California Energy Commission
- Geologist, Hydropower Relicensing EIS's, California, Federal Energy Regulatory Commission
- Geologist, Paleoliquefaction Studies along the Eastern Seaboard of the United States, Nuclear Regulatory Commission
- Geologist, Public Hearings on the North Carolina Low-Level Waste Siting
- Geologist, Rocky Point Pumped Storage Project, Taylor Park, Colorado, Natural Energy Resource Company
- Geologist, Statewide Liquid Geothermal Resource Evaluation, California, California Energy Commission
- Geologist/Paleontologist, Alamitos Energy Center, Huntington Beach, California, California Energy Commission
- Geologist/Paleontologist, Blyth Solar Power Project, Blyth, California, California Energy Commission
- Geologist/Paleontologist, Carlsbad Energy Center Project, Carlsbad, California, California Energy Commission
- Geologist/Paleontologist, El Segundo Power Project, El Segundo, California, California Energy Commission
- Geologist/Paleontologist, Gateway Generating Station, Antioch, California, California Energy Commission
- Geologist/Paleontologist, Geysers (Lakeview; NCPA #2), Calistoga, California, California Energy Commission
- Geologist/Paleontologist, Humboldt Bay Project, Humboldt, California, California Energy Commission
- Geologist/Paleontologist, Huntington Beach Energy Center, Huntington Beach, California, California Energy Commission
- Geologist/Paleontologist, Mission Rock Energy Center, Santa Paula, California, California Energy Commission
- Geologist/Paleontologist, Oakley Power Project, Oakley, California, California Energy Commission
- Geologist/Paleontologist, Pomona Repower Project, Pomona, California, California Energy Commission
- Geologist/Paleontologist, Pio Pico Energy Project, California, California Energy Commission
- Geologist/Paleontologist, Puente Power Project, Oxnard, California, California Energy Commission

- Geologist/Paleontologist, Ravenswood-Cooley Landing Reconductoring, Menlo Park and East Palo Alto, CPUC
- Geologist/Paleontologist, Stanton Energy Reliability Center, Stanton, California, California Energy Commission
- Hydrogeologist, Arco 5550 – City of Pomona Well-29, California, BP/Atlantic Richfield
- Hydrogeologist, ARCO Alegria/Gaviota Marine Terminal, Gaviota, California, BP/Atlantic Richfield
- Hydrogeologist, Assessment of 14 U.S. EPA Superfund Sites, CA, NJ, VA, OH, PA, and NY, US EPA
- Hydrogeologist, Auburn Tunnel Pumping Project, Auburn, California, City of Auburn
- Hydrogeologist, Defense Fuel Supply Point Ozol, Benicia, California, U.S. Army Corps of Engineers
- Hydrogeologist, Delta Habitat Conservation and Conveyance Project (DHCCP), CA DWR
- Hydrogeologist, Destruction of Wells N-11, N-18, & N-19, Sacramento, CA, Sacramento Suburban Water District
- Hydrogeologist, Diamond Valley Reservoir, Hemet, CA, Metropolitan Water District of Southern California
- Hydrogeologist, Geff Alternative Site Aquifer Characterization, Chicago, IL, State of Illinois
- Hydrogeologist, Groundwater Modeling of Alternative Low-level Waste Vault Designs, Savannah River, Westinghouse
- Hydrogeologist, Groundwater Monitoring in the Globe Mining District, Globe Arizona, Gila River Indian Community
- Hydrogeologist, Hydrogeologic Assessment of Potential Hazardous Waste Sites, San Francisco Bay Area, CA, PG&E
- Hydrogeologist, Kern Water Bank Evaluation Project, Kern Water Bank
- Hydrogeologist, Lake Skinner Groundwater Seepage Adjudication, Metropolitan Water District of Southern California
- Hydrogeologist, Los Baños Grandes Groundwater Resource Evaluation, Los Baños, California, CA DWR
- Hydrogeologist, Municipal Water Supply Well Siting, Design, & Construction, Alleghany County Water District
- Hydrogeologist, Mt. Hope Pumped Storage Project, Mt. Hope, New Jersey, Federal Energy Regulatory Commission
- Hydrogeologist, Platte River EIS, Wyoming and Nebraska, Federal Energy Regulatory
- Hydrogeologist, Sacramento Ethanol and Power Cogeneration Project, Sacramento, CA, ARK Energy
- Hydrogeologist, Sutter Power Plant AFC with the California Energy Commission, Sutter County, Calpine
- Hydrogeologist, Upper Rio Grande Flood Control Sys. Replacement, TX, Int. Boundary & Water Com.- US & Mexico
- Hydrogeologist, Vinvale Terminal, Southgate, California, BP/ARCO
- Hydrogeologist, Well 23 Assessment, Sacramento, CA, Sacramento Suburban Water District
- Hydrogeologist, Well 6 Destruction and Re-design, Sacramento, CA, Sacramento Suburban Water District
- Hydrogeologist, Well15 Rehabilitation, Rio Linda, CA, Rio Linda Elverta Community Water District, Rio Linda
- Independent Technical Reviewer, Calaveras Dam Replacement Project
- Independent Technical Reviewer, Diablo Canyon Nuclear Power Plant, Diablo Canyon, California, CEC
- Independent Technical Reviewer, Panama Canal Pacific Access Channel Project #4, Panama Canal Authority.
- Independent Technical Reviewer, Searchlight Wind Energy Project EIS, Bureau of Land Management
- Program QA/QC Manager, Urban and Non-Urban Evaluation Program (ULE/NULE), Sacramento, California, CA DWR
- Project Manager, Castaic Power Plant FERC Relicensing, Los Angeles Department of Water and Power (LADWP)
- Project Manager, Dos Pueblos Pipeline Removal Project, Goleta, California, BP/Atlantic Richfield
- Project Manager, Hanford, Technical Baseline Studies, Hanford, Washington, Westinghouse Hanford Company
- Project Manager, Los Angeles Terminal, Los Angeles, California, Conoco-Phillips
- Soils Analyst, Soil Trafficability Surveys, Federal Republic of Germany, U.S. Army Corps of Engineers
- Subject Mater Expert - California Geology, CA Board of Professional Engineers, Land Surveyors, and Geologists
- Subject Mater Expert - Hydrogeology, CA Board of Professional Engineers, Land Surveyors, and Geologists
- Task Order Manager, Non-Urban Levee Evaluation Project (NULE), Sacramento Delta, California, CA DWR

Education

- PhD/Geology/1989/Kent State University, OH
- MS/Geology/1980/Kent State University, OH
- BS/Geology/1974/Lehigh University, PA

Registration

- 2008/Certified Hydrogeologist/CA/#906
- 1992/Professional Geologist/CA/#8346
- 1985/HAZWOPER/OHSA
- 1991/HAZWOPER Supervisor Certification/OHSA

Professional Societies/Affiliates

- Sigma Xi, Scientific Research Society, Life Member
- Association of Environmental and Engineering Geologists (former Finance Committee co-chair and member of the Board of Directors)
- Groundwater Resources Association of California

Publications

Dr. Maurath has more than 40 publications covering topics including paleoliquefaction, terrestrial heat flow, numerical modeling, hydrogeology, nuclear waste, hazardous waste, and geothermal energy. He is co-editor of *Geology of Sacramento*, scheduled to be published in November 2019.

Academia

Dr. Maurath has taught undergraduate courses in Physical Geology, Hydrogeology, Environmental Habitats, and Laboratory Safety; and graduate level courses in Geology of the Bahamian Platform, Carbonate Deposition, Reef Ecology, Data Management, and ICP Laboratory Techniques for Trace Element Geochemistry. Dr. Maurath has been affiliated with Kent State University, University of California at Davis, California State University Sacramento, Monmouth College, and the University of St. Francis.

**DECLARATION OF
Ryan Casebeer**

I, Ryan Casebeer, declare as follows:

1. I am employed by the California Energy Commission as a Mechanical Engineer in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I oversaw preparation of staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Hazards/Hazardous Materials**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California

RYAN T. CASEBEER, P.E.

1628 Winchester Way Roseville, CA 95661 • 916.743.6144 • rcasebeer@gmail.com

Education **State of California – Licensed Professional Engineer** *2016*
Mechanical Engineer M 38407

Bachelor of Science, Mechanical Engineering *2006*
California State University, Sacramento, Sacramento, CA

Professional Experience **California Energy Commission - STEP** *Aug. 2019 – Present*
The Commission ensures that energy facilities (power plants) are permitted in an acceptable manner. The STEP division prepares environmental documentation for the Commission as required by the California Environmental Quality Act (CEQA).

Mechanical Engineer

Provide independent engineering analysis for various technical areas with an emphasis on hazardous materials management, worker safety, & fire protection.

- Review, analyze and prepare engineering analysis for hazardous materials management, fire protection, and worker safety for gas-fired power plants.
- Provide written and oral expert witness testimony at commission hearings. Conduct power plant inspections during construction and operational phases.
- Investigate accident, fire, and hazardous materials incidents at licensed power plants.

2007 – 2019

Capital Engineering Consultants, Inc.

A leader in mechanical engineering design in Northern California since 1947 specializing in areas including K-12 Education, Higher Education, Civic and Justice, and Healthcare.

Project Manager, Associate

Manage the design, project specification, calculations and cost estimations for new and renovated construction projects. Oversee and supervise the daily workload, mentoring, and quality control for an assigned junior engineer.

- Coordinate and manage of the Team and others involved on the project to all project deadlines are complete on time and within budget.
- Complete all Mechanical and Plumbing Feasibility scoping reports on all Healthcare Projects that outline all HVAC and Plumbing systems.
- Plan and monitor the workload of projects, while preparing and taking responsibility for the concept of and preliminary engineering solutions for the detailed design phase.
- Implement the detailed design engineering of HVAC systems; code review, heating and cooling load calculations, air-flow requirements, ductwork sizing and layout, piping sizing and layout, equipment selection, and system controls with an emphasis on healthcare facilities.

Computer Literacy Proficient in the use of various software applications including Microsoft Office (Word, Excel, PowerPoint, Outlook) AutoCAD 2020, Revit 2020, Visio, NavisWorks, and Newforma Infoexchange

DECLARATION OF Mike Conway

I, Mike Conway, declare as follows:

1. I am employed by the California Energy Commission as a Mechanical Engineer in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Hydrology/Water Resources** and **Wildfire**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California

Resume for Mike Conway

Education: Master of Science in Geology, California State University, Sacramento, August 2012
Bachelor of Science in Geology, University of California, Davis, August 2003

Certifications: California Professional Geologist (PG), no. 9107
California Certified Hydrogeologist (CHG), no. 1024
Certified Professional in Erosion and Sediment Control (CPESC)
Qualified Storm Water Pollution Prevention Plan (SWPPP) Developer (QSD) and Practitioner (QSP)
Leadership in Energy and Environmental Design Accredited Professional (LEED AP)

Experience: *Engineering Geologist: California Energy Commission, Sacramento, CA* **2009-Present**

- Serve as an expert witness in water resources and technical analyses for power plant siting cases
- Prepare expert testimony in subject areas of hydrogeology, soil erosion, surface water flow
- Lead technical reviewer for Yucca Mountain Waste Repository Environmental Impact Statement
- Prepare expert analyses of state law, ordinances, regulations, and standards applicable to water use
- Perform onsite evaluations of soil and water resource impacts pre- and post-project
- Construct hydraulic and hydrogeologic models (MODFLOW, GIS, WMS) to evaluate resource impacts

Environmental Scientist: Central Valley Water Board, Rancho Cordova, CA **2009**

- Wrote municipal storm water permits for Phase I communities in the Central Valley
- Reviewed storm water annual reports for Phase I and II municipalities
- Conducted audits of industrial sites for compliance with storm water permits
- Conducted audits of municipalities for compliance with municipal permits
- Represented Water Board in large technical workshops and other public forums

Environmental Consultant: Wood Rodgers, Inc., Sacramento, CA **2006-2009**

- Consulted clients on how to comply with Federal, State and local storm water quality regulations
- Helped public and private sector clients gain State Water Resources Control Board (SWRCB) permit coverage under Large and Small MS4 General Permits, NPDES Permits, CWA Section 401 Permits
- Consulted clients on Army Corps of Engineers, 404 Permitting
- Developed a storm water quality manual for Yolo County
- Prepared Caltrans environmental documentation and design for all project phases
- Drafted water pollution control exhibits using both AutoCAD and MicroStation
- Prepared Caltrans Storm Water Data Reports including cost estimates
- Designed landscaping plans for Caltrans' Modesto Ramp Rehabilitation Project
- Prepared Spill Prevention Control and Countermeasure (SPCC) plans

Storm Water Quality Consultant: Envirosafety Services, Elk Grove, CA **2004-2006**

- Wrote site specific SWPPPs to include guidance specific to city, county, and geographical constraints
- Designed exhibits using AutoCAD
- Conducted inspections at construction sites throughout the Central Valley for (SWPPP) compliance
- Resolved storm water compliance issues in cooperation with site superintendents and inspectors

Post-Graduate Researcher: Dept. of Land, Air, and Water Resources, U.C. Davis, CA **2003**

- Studied the affect of irrigation practices on wetland ecology and water quality
- Independently organized monthly analyses and data processing of selenium contaminated invertebrate, algae, and water samples from the Tulare Lake Drainage District
- Managed concentrated acids, carcinogenic solutions, and final fluorescence measurements
- Compiled research data and presented findings to a team of eight colleagues

**DECLARATION OF
Scott Polaske**

I, Scott Polaske, declare as follows:

1. I am employed by the California Energy Commission as a Planner II in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Mandatory Findings of Significance**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California



SCOTT POLASKE
PLANNER II

Education, Certification & Associations

- Bachelor of Arts, Environmental Studies, University of California at Santa Barbara (2014)

Experience

California Energy Commission (CEC) – from 5/2015 to present

Planner II

As community resources staff with the Energy Commission, Mr. Polaske analyzes the transportation, land use and visual components of energy facilities siting applications to assess resource impacts, develop mitigation, and to evaluate compliance with applicable federal, state, and local, laws, ordinances, regulations, and standards. Mr. Polaske also takes lead on cumulative impact analyses, requiring coordination with local planning jurisdictions as well as with Energy Commission staff to ensure the best available information on cumulative projects is include in staff analyses.

Projects

- Puente Power Project – assisted in cumulative and alternatives analysis
- Alamitos Energy Center – assisted in cumulative and alternatives analysis
- Chemehuevi Community Center Solar Grant Proposal – assisted in grant review
- Pomona Repower Project SPPE – land use analysis
- Mission Rock Energy Center – transportation analysis
- Stanton Energy Reliability Center – visual resources analysis
- McLaren Backup Generating Facility SPPE – cumulative analysis
- Hesperia Farm Solar Photovoltaic Project Initial Study – grant review
- Fly Monterey Solar Program Initial Study – grant review
- Del Mar EIR for Civic Center Energy Efficiency Enhancements – grant review
- Operational Power Plant Amendments – amendment impact review

**DECLARATION OF
Lisa Worrall**

I, Lisa Worrall, declare as follows:

1. I am employed by the California Energy Commission as a Senior Environmental Planner in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Mandatory Findings of Significance** and **Environmental Justice**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California

LISA WORRALL

916-654-4545 ~ lisa.worrall@energy.ca.gov

Summary

- Seasoned environmental analyst with experience navigating through projects with varying levels of complexity while under budgetary pressure and very demanding schedules.
- Adept at making complex projects and concepts clear and easy to understand.
- Testified as a subject-matter expert in Socioeconomics, Land Use, and Environmental Justice subject areas in power plant certification proceedings.
- Project manager for discretionary projects subject to the California Environmental Quality Act.

Employment Experience

California Energy Commission
Senior Environmental Planner

Sacramento, California
February 2020 to Present

- Project manager for discretionary projects subject to the California Environmental Quality Act in addition to the duties performed as Planner II.

Planner II

January 2010 to February 2020

- Manage very complex energy facility projects from the preparation of the technical sections to the publication of the environmental document and participation in hearing proceedings.
- Bring a wide array of technical staff together to solve problems as soon as they arise.
- Review technical sections, ensuring clarity, consistency, and accuracy.
- Ensure project quality control while managing project scheduling.
- Prepare an independent analysis of environmental impacts from electric facilities as a deep subject matter expert in the technical areas of agriculture/forestry, land use and planning, public services, recreation, transportation, and environmental justice (disadvantaged communities).
- Contribute technical analysis to the alternatives analysis section in environmental documents.
- Develop mitigation measures for energy facility projects.
- Evaluate projects in accordance with the California Environmental Quality Act (CEQA), Warren Alquist Act, the California Energy Commission siting regulations, and federal, state and local laws, ordinances, regulations, and standards.
- Review information provided by the project applicant and research other resources to assess the environmental effects of energy facility proposals.
- Testify in hearings during project license proceedings as a subject matter expert in addition to presenting during project workshops for the public.
- Contribute deep subject matter expertise to policy and planning documents.
- Mentor new staff and collaborate with colleagues with a variety of technical expertise.
- Consistently and routinely go above and beyond what is asked of me as supported by the four awards I received for superior accomplishment.
- Selected as part of a project development team tasked with improving existing and creating new procedures that promote the division.

Sacramento County Planning and Environmental Review Sacramento, California
Associate Environmental Analyst April, 2006 – May, 2009

- Prepared a variety of environmental documents in compliance with CEQA, National Environmental Policy Act (NEPA) and other federal, state, and local LORS.
- Conducted project site assessments, reviewed engineering plans, and researched and interpreted scientific data for project impact analysis.
- Managed multiple public works and private development projects with a variety of environmental concerns and overlapping deadlines.
- Maintained effective relationships with other Sacramento County departments, agencies, and service providers to ensure comments and recommended conditions of project approval were obtained and any associated environmental impacts assessed.

Analytical Environmental Services Sacramento, California
Associate April, 2004 – October, 2005

- Interpreted highly technical traffic impact studies, utilizing the information to develop a traffic impact assessment chapter for use in a variety of environmental documents complying with CEQA, NEPA, and county and city transportation policies and codes.
- Managed the preparation of traffic studies, including developing the scope of study, securing the contract, and reviewing the work product.
- Managed multiple private development projects simultaneously under tight deadlines. Clients included Native American tribes and cities.
- Coordinated with state, county and city officials in the development of traffic study methodology, parameters and assumptions for proposed projects.
- Worked closely with transportation engineers to understand the complexities of each project's specific traffic impacts.

California Department of Transportation (Caltrans) Fresno, California
Associate Environmental Planner March, 2003 – March, 2004
Environmental Planner August, 2000 – March, 2003

- Prepared all levels of environmental documentation for transportation projects in compliance with CEQA and NEPA.
- Coordinated and interpreted environmental technical studies for incorporation into the environmental document and for explanation to other team members, agencies, and the public.
- Managed and represented environmental concerns with other functional units.
- Led and participated in public outreach events.
- Coordinated project development with other Caltrans departments, agencies and the public.

Education

California State University, Northridge May, 2000
Bachelor of Arts in Geography

**DECLARATION OF
Abdel-Karim Abulaban, P.E.**

I, Abdel-Karim Abulaban, declare as follows:

1. I am employed by the California Energy Commission as an Associate Civil Engineer in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Noise** and **Utilities/Service Systems**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California

AbdelKarim Abulaban

Education

Ph.D. Civil Engineering, University of Minnesota (*Hydrology and Water Resources*).

Thesis title: Modeling the transport of sorbing chemicals in heterogeneous porous media.

M.S. Civil Engineering, Yarmouk University, Irbid, Jordan (*Water Resources*).

Thesis Title: Developing Intensity-Duration-Frequency Curves for Irbid Region.

B.S. Civil Engineering, Yarmouk University, Irbid, Jordan (*water resources stream*).

Senior Project: Design of Water Supply and Sewer Systems for the Northwestern Part of Irbid City (*population 100,000*).

Registration:

Registered Professional Engineer (Civil) in the state of California (Lic. No. 76030)

Registered as a Qualified SWPPP Developer and Practitioner (QSD/QSP), California

Stormwater Quality Association (CASQA) - Cert. # 1160.

Experience - Professional

June 2010-Present:

Associate Civil Engineer

CA Energy Commission,
Sacramento, CA, USA.

- ❖ Reviewing and evaluating the construction, operation, and maintenance of energy facilities and power plants for water supply, wastewater disposal, waste, water quality, and stormwater to assess the potential impacts to human health and the environment.
- ❖ Reviewing sensitive project sites that may have issues involving flooding and stormwater management, discharges to impaired water bodies, depleted groundwater and surface water resources, and wastewater management and disposal methods.
- ❖ Responding to soils or water resources issues that may arise regarding power plant operations.
- ❖ Conducting investigations to determine if any violations of the program's regulations, the Energy Commission's conditions of certification, or the CA Environmental Quality Act (CEQA) have occurred.
- ❖ Analysis of one of the largest solar projects in the world for environmental impacts on soil and water resources. This project is designed to generate 500 megawatts using solar energy to generate steam that runs a turbine to generate electricity.
- ❖ Analysis of another solar project, also one of the largest projects in the world, that uses photovoltaic (PV) technology and is designed to generate 1000 megawatts.
- ❖ Currently analyzing a cutting-edge project that proposes to minimize the green house impact of the project by injecting the generated CO₂ gas underground for long term sequestration. The CO₂ would be injected to depths of 5000 ft. or more below ground surface. This project is the first of its kind in the USA and would set the stage for other projects to store CO₂ in geologic formations to reduce green house gas emissions.

Dec. 2006-May 2010:

Water Resources Engineer

CA Dept. Water Resources,

- ❖ In charge of hydraulic modeling and sediment transport for the San Joaquin River restoration project.
- ❖ Performed 1- and 2-D hydraulic analysis to support restoration

Fresno, CA, USA.	of the San Joaquin River for the purpose of improving spawning/rearing habitat, enhancing floodplain connectivity, and improving riparian corridor.
<u>Dec. 2001-Dec. 2006:</u> Retained Hydrologist J.L. Nieber & Associates, Hydrologic Consultants, Lindstrom, Minnesota, USA.	<ul style="list-style-type: none"> ❖ Performed hydrologic analysis and assessment of environmental impact of contamination incidents on ground water resources, as well as design of remediation plans. ❖ Contaminants analyzed included hydro-carbons, chlorinated solvents, as well as agrichemicals.
<u>Dec. 90 – Dec. 93:</u> Retained Hydrologist. BAUMGARTNER ENVIRONICS, INC, Olivia, Minnesota, USA.	<ul style="list-style-type: none"> ❖ Performed assessment of the environmental impact of contamination incidents on groundwater resources, and design of action plans.

Experience - Teaching

<u>Sep. 2003-Sep. 2005:</u> Assistant Professor, Hashemite University, Zarqa, Jordan.	<p>Taught the following courses:</p> <ul style="list-style-type: none"> ❖ Water and Wastewater Treatment Methods (Senior) – 1 semester ❖ Wastewater Engineering (Senior level) – 2 semesters ❖ Statics - 3 semesters ❖ Engineering Drawing - 4 semesters ❖ Visual Communication - 4 semesters
<u>June – August, 96, 97, 98, 2000:</u> Army High Performance Computing Research Center, Minneapolis, Minnesota.	<ul style="list-style-type: none"> ❖ The Summer Institute is a summer course offered to promising upper class students from member institutions. The summer course included a ground water flow and transport group that normally had about 4 students from different backgrounds. ❖ Taught and helped teach the Summer Institute course in hydrology and transport in porous media. ❖ Was part of the team that trained the students to use a particle tracking solute transport code which I developed. ❖ Also trained the group to use the DoD's Ground Water Modeling System, GMS. ❖ In the summer of 2000 I was fully in charge of the whole group. ❖ More information about the projects can be on the Summer Institute web site at: http://www.arc.umn.edu/education/SummerInst/
<u>August, 1997:</u> Short course for practitioners, University of Minnesota, Minneapolis, Minnesota, USA.	<ul style="list-style-type: none"> ❖ Taught a short course on the application of the Department of Defense's Ground Water Modeling System, GMS, offered by the American Society of Agricultural Engineers and attended by about 40 professionals and academicians from around the United States as well as several countries around the world.
<u>Mar. 88 - Dec. 92:</u> Teaching Assistant, Dept. of Civil Engineering, University of Minnesota, Minneapolis, Minnesota.	<ul style="list-style-type: none"> ❖ Teaching assistant for the senior courses of Hydrology and Hydrologic Design, and Water Resources Engineering.

**DECLARATION OF
Ashley Gutierrez**

I, Ashley Gutierrez, declare as follows:

1. I am employed by the California Energy Commission as a Planner II in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Population/Housing, Public Services, Recreation, and Environmental Justice**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California



Ashley Gutierrez

(916) 879-6250 a.ratchford7@gmail.com 2016 9th Street, Sacramento, CA. 95818

Objective

To utilize my technical knowledge and project management skills in a mid-level professional position related to energy facility siting planning where I can reduce environmental impacts involved with power plant development.

Experience

PLANNER I (EFS), CALIFORNIA ENERGY COMMISSION; SACRAMENTO, CA — SEPT 2016-CURRENT

Independently performed technical analyses for facility siting cases and planning studies in the areas of socioeconomics, land use, environmental justice, traffic and transportation, and visual resources. Provided technical expertise and served as a member of interdisciplinary teams evaluating the environmental and socioeconomic effects of proposed energy facilities, policies and plans for energy development in order to satisfy the requirements of the Warren-Alquist Act and the California Environmental Quality Act (CEQA). Also performed as a working team leader on less complex projects or coordinate the activities of other technical specialists in the evaluation of energy projects.

ENERGY ANALYST, CALIFORNIA ENERGY COMMISSION; SACRAMENTO, CA — JULY 2015-SEPT 2016

Prepared independent assessments and final analyses of the socioeconomic, environmental justice, land use, traffic and transportation, and visual resource aspects of Application for Certification, Major Amendments and Minor Amendments. Identified, described, and analyzed issues related to electrical energy production facilities, alternative energy technologies, energy research and development and Commission programs and policies which included the preparation of sections of initial studies and environmental impact reports. Coordinated and worked with federal, state, regional and local governments; land use planning, transportation and related agencies. Examined and evaluated existing and proposed laws, ordinances, regulations, standards and policies pertinent to the technical areas listed above. Performed site visits when necessary.

ADMINISTRATIVE ASSISTANT, NO ON 46 CAMPAIGN; SACRAMENTO, CA — AUG 2014-NOV 2014 (TEMP)

Established statewide campaign yard-sign distribution locations. Processed reimbursement forms & daily correspondence with legal department to ensure checks were disbursed. Received, directed, & responded to phone inquiries. Maintained office functionality by ensuring materials were available.

INTERN & VOLUNTEER, GGNRA; SAN FRANCISCO, CA — AUG 2011-SEP 2013

Educated diverse groups of the importance of biodiversity in the San Francisco region. Participated with the identification & collection of critically rare & endangered plants. Performed the role of site steward for Ft. Baker & addressed invasive species management issues.

Education

San Francisco State University — Bachelor's Degree in Geography, Concentration in Natural Resource Management 2013

Skills

Excellent interpersonal skills & the ability to successfully work within a larger team environment. The ability to gather, compile, analyze, & interpret written & numerical research data. Advanced skills with Microsoft Excel & Microsoft Word programs. Ability to effectively write & edit technical program information.

References

Jon Fong, CEC (916) 654-5005

Steve Kerr, CEC (916) 651-0483

Dave Flores, CEC (916) 524-5195

Amanda Stennick, CEC (916) 837-1670

Coty Sifuentes-Winter, GGNRA- (415) 385-4226

Jim DeBoo, No on 46 Campaign- (916) 806-1526

**DECLARATION OF
Ellen Lefevre**

I, Ellen Lefevre, declare as follows:

1. I am employed by the California Energy Commission as a Planner II in the Siting, Transmission and Environmental Protection Division.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared staff testimony for the Mission College Data Center Initial Study in the technical area(s) of **Transportation**. This testimony reflects my independent analysis of the Application for Small Power Plant Exemption and related materials, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: June 9, 2020 Signed: /s/

At: Sacramento, California

Ellen LeFevre

(916) 651-2907

Ellen.lefevre@energy.ca.gov

Professional Experience:

Planner II

California Energy Commission, State of California

- Prepare socioeconomic, environmental justice, land use, and transportation assessments for proposed Applications of Certifications, Small Power Plant Exemptions, and transmission projects.
- Evaluate the licensee's compliance with conditions of certification for power plant facilities.
- Prepare written testimony for multiple energy projects

Planner I

California Energy Commission, State of California

- Evaluate and analyze environmental and socioeconomic effects of proposed energy facilities to ensure the requirements of the Warren-Alquist Act and California Environmental Quality Act are satisfied.
- Prepare socioeconomic, environmental justice, and land use assessments for proposed and existing energy facility sites.
- Evaluate the licensee's compliance with conditions of certification for power plant facilities.
- Prepare written testimony for multiple energy projects

Education:

Sacramento State

Degree: Bachelor of Science in Geology with minor in Anthropology

American River College

Degree: Associate in Science in Mathematics with emphasis in General Science