

California Energy Commission  
Minutes of the July 26, 2023, Energy Commission Business Meeting

The meeting was called to order by Chair Hochschild. The Pledge of Allegiance was led by Commissioner McAllister.

Present:

Andrew McAllister, Commissioner  
Noemi Gallardo, Commissioner

Patricia Monahan, Commissioner

Absent:

David Hochschild, Chair  
Siva Gunda, Vice Chair

Please note that the California Energy Commission (CEC) aims to begin the business meeting promptly at the start time and the end time is an estimate based on the agenda. The meeting may end sooner or later than the time indicated depending on various factors.

Pursuant to the California Code of Regulations (CCR), title 20, section 1104(e), any person may make an oral comment on any agenda item. To ensure the orderly conduct of business, such comments will be limited to two minutes or less per person.

**THE CEC WILL CONSIDER AND MAY TAKE ACTION ON THE FOLLOWING:**

**1. Public Comment.**

Any person wishing to comment on information items (non-voting items) shall provide comments during this period.

*Public Comment:*

*Nikola Lakic commented on this item.*

**2. Agency Announcements.**

The Chair may announce relevant matters to the public and the CEC, including agency updates, events, and other opportunities. Discussion may follow.

**3. Consent Calendar.**

Items will be taken up and voted on as a group. A commissioner may request that an item be moved and discussed later in the meeting.

- a. Local Ordinance for the City of Santa Clara. Proposed resolution making findings pursuant to Public Resources Code section 25402.1(h)(2) concerning the City of Santa Clara's local ordinance, which contains requirements that new hotel/motel and high-rise multifamily buildings under 10,000 square feet (ft<sup>2</sup>) with 10 habitable stories or less, and nonresidential buildings with 3 or fewer habitable stories, install a 3 kilowatt (kW) solar photovoltaic (PV) system, and that new hotel/motel and high-rise multifamily buildings equal to or greater than 10,000 ft<sup>2</sup>

- with 10 habitable stories or less, and nonresidential buildings with 3 or fewer habitable stories, install a 5 kW solar PV system. Contact: Danuta Drozdowicz
- b. Morton Bay Geothermal Project (MBGP) – 23-AFC-01. Proposed order adopting the executive director’s recommendation finding that the MBGP application for certification (AFC) is complete and should be accepted to begin the 12-month AFC review process. On April 18 and 19, 2023, Morton Bay Geothermal, LLC, an indirect, wholly owned subsidiary of BHE Renewables, LLC, filed an AFC to construct and operate the 140 MW MBGP in unincorporated Imperial County in the Salton Sea Known Geothermal Resource Area. Contact: Eric Knight
  - c. Elmore North Geothermal Project (ENGP) – 23-AFC-02. Proposed order adopting the executive director’s recommendation finding that the ENGP application for certification (AFC) is complete and should be accepted to begin the 12-month AFC review process. On April 18 and 19, 2023, Elmore North Geothermal, LLC, an indirect, wholly owned subsidiary of BHE Renewables, LLC, filed an AFC to construct and operate the 140 MW ENGP in unincorporated Imperial County in the Salton Sea Known Geothermal Resource Area. Contact: Eric Knight
  - d. Black Rock Geothermal Project (BRGP) – 23-AFC-03. Proposed order adopting the executive director’s recommendation finding that the BRGP application for certification (AFC) is complete and should be accepted to begin the 12-month AFC review process. On April 18 and 19, 2023, Black Rock Geothermal, LLC, an indirect, wholly owned subsidiary of BHE Renewables, LLC, filed an AFC to construct and operate the 77 megawatt (MW) BRGP in unincorporated Imperial County in the Salton Sea Known Geothermal Resource Area. Contact: Eric Knight
  - e. Aspen Environmental Group. Proposed resolution approving amendment 2 to contract 700-22-004 with Aspen Environmental Group to increase the agreement’s budget by \$800,000 to support additional work related to offshore wind and complimentary battery storage to ensure local benefits including enhanced reliability and resilience. This contract provides professional engineering and environmental services to support the state’s environmental, conservation, engineering, infrastructure, economic, and land use planning activities in terrestrial, coastal, and marine environments.(General Fund Funding) Contact: Sharon Purewal
  - f. The Regents of the University of California, on behalf of the Davis Campus. Proposed resolution approving agreement 600-23-002 with the Regents of the University of California, on behalf of the Davis Campus (UCD) for a \$357,625 contract to better understand consumer experiences for fuel cell electric vehicle (FCEV) owners, and adopting staff’s determination that this action is exempt from the California Environmental Quality Act (CEQA). UCD will conduct a light-duty FCEV customer survey, as well as interviews with medium- and heavy-duty fuel cell truck automakers, fleets, fuel suppliers, and equipment providers. (Clean Transportation Program (CTP) Funding) Contact: Mark Johnson

- g. The Regents of the University of California, on behalf of the Davis Campus. Proposed resolution approving agreement 500-23-001 with the Regents of the University of California, on behalf of UCD, for up to \$1,519,202, and adopting staff's determination that this action is exempt from CEQA. UCD will provide technical assistance to the California Schools Healthy Air, Plumbing, and Efficiency (CalSHAPE) Program by reviewing Heating, Ventilation, and Air Conditioning (HVAC) Assessment Reports, conducting audits, and analyzing program data. (CalSHAPE Funding) Contact: Blake Campbell
- h. Energy Conservation Assistance Act (ECAA) Loan Program – PON-22-001. Proposed resolutions approving six ECAA-Ed loans at zero-percent interest totaling \$10,077,989. (ECAA-Ed Funding) Contact: Sean Lockwood
  - i. Panama-Buena Vista Union School District. Proposed resolution approving agreement 001-23-ECG with the Panama-Buena Vista Union School District in Kern County, for a \$2,998,636 loan at zero-percent interest and adopting staff's determination that this action is exempt from CEQA. The loan will be used to install lighting measures at 20 district sites. Upon project completion, it is estimated to reduce about 1,108,856 kWh of electricity consumption in the first year, saving \$321,266 in utility costs per year. The payback period is 9.3 years.
  - ii. Livingston Union Elementary School District. Proposed resolution approving agreement 005-23-ECG with Livingston Union Elementary School District in Merced County, for a \$1,317,112 loan at zero-percent interest and adopting staff's determination that this action is exempt from CEQA. The loan will be used to install a 218.7 kW DC carport structure PV system at one school site. Upon project completion, it is estimated to reduce 342,318 kWh of grid electricity consumption in the first year of solar production, saving approximately \$83,494 in utility costs per year. The payback period is 15.8 years.
  - iii. Goleta Union Elementary School District. Proposed resolution approving agreement 006-23-ECG with Goleta Union Elementary School District in Santa Barbara County, for a \$2,092,838 loan at zero-percent interest and adopting staff's determination that this action is exempt from CEQA. The loan will be used to install a total of 330 kW DC carport structure PV systems at four sites. Upon project completion, it is estimated to reduce about 509,280 kWh of grid electricity consumption in the first year, saving \$104,642 in utility costs per year. The payback period is 20 years.
  - iv. Woodville Union Elementary School District. Proposed resolution approving Agreement 003-23-ECG with Woodville Union Elementary School District in Tulare County, for a \$1,476,843 loan at zero-percent interest and adopting staff's determination that this action is exempt from CEQA. The loan will be used to install one carport solar PV array of 218.7 kW at one district site. Upon project completion, it is estimated to reduce approximately 342,066 kWh of electricity consumption in the first year of solar production, saving \$88,338 in utility costs per year. The payback period is 16.7 years.
  - v. Corning Union Elementary School District. Proposed resolution approving Agreement 002-23-ECG with Corning Union Elementary School District in Tehama County, for a \$3,000,000 loan at zero-percent interest and adopting staff's determination that this action is exempt from CEQA. The loan will be used to install three solar PV arrays totaling 480 kW at three district sites.

Upon project completion, it is estimated to reduce approximately 795,745 kWh of electricity consumption in the first year of solar production, saving \$206,817 in utility costs per year. The payback period is 14.5 years.

- vi. Wheatland Union High School District. Proposed resolution approving Agreement 004-23-ECG with Wheatland Union High School District in Yuba County, for a \$1,082,340 loan at zero-percent interest and adopting staff's determination that this action is exempt from CEQA. The loan will be used to install a 135 kW carport structure PV system at one District school site. Upon project completion, it is estimated to reduce approximately 207,419 kWh of electricity consumption in the first year of solar production, saving \$54,117 in utility costs per year. The payback period is 20 years.
- i. Order Instituting Informational Proceeding on Reliability. Proposed order instituting informational proceeding (OIP) to explore grid reliability. California is experiencing a substantial shift in conditions affecting the electric grid, which is transitioning to a clean energy future, while confronting the impacts of climate change. The OIP will investigate challenges to California's grid reliability in the near-, mid-, and long-term. It will also evaluate paths to improve resource planning, diversify supply-side and demand side resources, and prepare for extreme events. Contact: David Erne
- j. Southern California Public Power Authority. Proposed order approving the executive director's recommendation that the Southern California Public Power Authority's Power Purchase Agreement with Geysers Power Company LLC for the procurement of geothermal energy from a portfolio of geothermal facilities be found compliant with the Emission Performance Standard for Local Publicly Owned Electric Utilities pursuant to CCR, title 20, sections 2900-2913. Contact: David Gee

*Public Comment:*

*Jon Trujillo from BHU Renewables commented on items 3b, 3c, 3d.*

*Commissioner Monahan moved to approve Item 3. Commissioner Gallardo seconded. The vote was Yes (3-0).*

#### **4. Huntington Beach Energy Project – 12-AFC-02C.**

Proposed order amending the CEC's certification of the Huntington Beach Energy Project to (1) change the project description to increase the annual combined cycle gas turbine operating hours from 6,640 hours per unit per year to 7,640 hours per unit per year, modify air emission limits to be commensurate with the increase of operating hours, and include other modifications; and (2) adopt staff's determination that the project would not have a significant adverse impact on the environment and would comply with all applicable laws, ordinances, regulations and standards.

Contact: Joseph Douglas (Staff Presentation: 5 minutes)

*Public Comment:*

*Nikola Lakic commented on this item.*

*Commissioner Gallardo moved to approve Item 4. Commissioner Monahan seconded. The vote was Yes (3-0).*

## **5. Demand Side Grid Support (DSGS) Program – 22-RENEW-01.**

Proposed resolution approving the Second Edition of the DSGS Program Guidelines, and adopting staff's determination that this action is exempt from CEQA. The DSGS Program provides incentives to reduce customer net load during extreme events with upfront capacity commitments and for per unit reductions in net load. The Second Edition of the DSGS Program Guidelines expands program eligibility, streamlines participation, and includes new incentive pilots to bring more cleaner resources into the program. Contact: Ashley Emery (Staff Presentation: 10 minutes)

### *Public Comment:*

*Grace Pratt from Sunrun commented on this item.*

*Meredith Alexander from Arani Power Systems commented on this item.*

*Erik Lyon from California Energy Commission commented on this item.*

*Nikola Lakic commented on this item.*

*Kate Unger from California Solar & Storage Association supports this item.*

*Clark Mclsaac from California Efficiency & Demand Management Counsel commented on this item.*

*Cliff Staton from OhmConnect commented on this item.*

*Andrew Cole from Leap commented on this item.*

*Commissioner Monahan moved to approve Item 5. Commissioner Gallardo seconded. The vote was Yes (3-0).*

## **6. California Department of Transportation (Caltrans).**

Proposed resolution approving interagency agreement RMB600-23-001 for Caltrans to provide up to \$383,673,792 to the CEC to administer California's National Electric Vehicle Infrastructure (NEVI) Formula Program, and for CEC to provide \$2,004,358 in match funds for the NEVI Formula Program; and adopting staff's determination that this action is exempt from CEQA. The CEC will work with Caltrans to update California's NEVI Deployment Plan, nominate Alternative Fuel Corridors, release competitive solicitations, and manage project agreements to build out electric vehicle charging stations. (NEVI Funding, CTP Match Funding) Contact: Ben De Alba (Staff Presentation: 5 minutes)

### *Public Comment:*

*Nikola Lakic commented on this item.*

*Commissioner moved to Monahan approve Item 6. Commissioner Gallardo seconded. The vote was Yes (3-0).*

## **7. GILLIG LLC.**

Proposed resolution adopting CEQA findings for GILLIG LLC's (GILLIG) Zero-Emission Bus Manufacturing Ramp-Up in the State of California, and approving agreement ZVI-23-001 with GILLIG. (General Fund and CTP Funding) Contact: Hieu Nguyen (Staff Presentation: 5 minutes)

- a. CEQA. Findings that, (1) based on the lead agency City of Livermore's (Livermore) Environmental Impact Report (EIR) which included mitigation measures, adopted and filed on March 23, 2004, (2) Livermore's subsequent

Conditional Use Permit (CUP) 14-006 and Site Plan Design Review (SPDR) 14-018 adopted and filed on March 10, 2015, and (3) Livermore's Site Plan Design Review Modification (SPDRM) 23-015 adopted and filed on June 2, 2023, work under the project presents no new or substantially more severe environmental impacts beyond those already considered and mitigated; and that following Livermore's adoption of the EIR, CUP, SPDR, and SPDRM, none of the circumstances within CCR, title 14, section 15162 are present.

- b. Zero-Emission Bus Manufacturing Ramp-Up in the State of California. Proposed resolution approving agreement ZVI-23-001 with GILLIG for a \$29,729,717 grant to expand GILLIG's electric bus manufacturing capacity and for the production launch and scaling of its third-generation battery-electric bus at their facility in Livermore.

*Public Comment:*

*Derek Maunus from GILLIG, LLC. commented on this item.*

*Commissioner Monahan moved to approve Item 7. Commissioner Gallardo seconded. The vote was Yes (3-0).*

## **8. Assessing the Role of Hydrogen in California's Decarbonizing Electric System – GFO-22-304.**

This solicitation sought proposals to assess the potential role of hydrogen production from renewable electricity and end-use conversion technologies for electric sector applications. These assessments will inform future investments to research, develop, and deploy key hydrogen technologies. This item includes two projects totaling \$1,597,153. (EPIC Funding) Contact: Jeffrey Sunquist (Staff Presentation: 5 minutes)

- a. RAND Corporation. Proposed resolution approving agreement EPC-23-004 with RAND Corporation for a \$798,348 grant to assess the potential role of hydrogen production from renewable electricity and end-use conversion technologies for electric sector applications in California's decarbonizing electric system, and adopting staff's determination that this project is exempt from CEQA. The project will evaluate the underlying physics of key hydrogen technologies, assess complementary and competitor technologies, determine performance and cost metrics, and inform future EPIC research and policy recommendations.
- b. Energy and Environmental Economics, Inc. Proposed resolution approving agreement EPC-23-009 with Energy and Environmental Economics, Inc. for a \$798,805 grant to assess the role of hydrogen production and conversion technologies to enable decarbonization of end-use electric sector applications, and adopting staff's determination that this project is exempt from CEQA. This study includes scoping geologic formations in California that could enable low-cost hydrogen storage, developing datasets for projected costs and performance of hydrogen technologies from production to end-use, and developing computational tools to determine the optimal configuration of hydrogen production, storage, transport, and end-use equipment to serve California's decarbonizing electric sector.

*Public Comment*

*None.*

*Commissioner Gallardo moved to approve Item 8. Commissioner Monahan seconded. The vote was Yes (3-0).*

**9. Advancing Window Retrofits and Reducing Fireplace Air Leaks to Improve Energy Efficiency in Existing Buildings – GFO-22-501.**

This solicitation sought proposals to demonstrate and advance high-performance windows in existing commercial buildings and investigate strategies to reduce air and energy leakage in existing residential wood-burning and gas fireplaces. The research will address energy efficiency envelope retrofits in existing buildings to lower greenhouse gas emissions associated with heating, ventilation, and air conditioning energy use. This item includes three projects totaling \$2,638,222. (Gas R&D Funding) Contact: Jeanie Mar (Staff Presentation: 5 minutes)

- a. Electric Power Research Institute, Inc. Proposed resolution approving agreement PIR-23-001 with Electric Power Research Institute, Inc. for a \$1,535,556 grant to demonstrate and evaluate the cost-effectiveness and benefits of an interior-mounted, energy-efficient, high-performance, secondary window retrofit system to be installed in elementary schools located in a low-income and disadvantaged community in Bakersfield, and adopting staff's determination that this action is exempt from CEQA.
- b. DNV Energy Insights USA Inc. Proposed resolution approving agreement PIR-23-002 with DNV Energy Insights USA, Inc. for a \$238,160 grant to evaluate residential fireplace air leakage and recommend cost-effective actions to mitigate while improving building energy efficiency and indoor air quality, and adopting staff's determination that this action is exempt from CEQA.
- c. Institute of Gas Technology d.b.a. GTI Energy (GTI Energy). Proposed resolution approving agreement PIR-23-003 with GTI Energy for a \$864,506 grant to demonstrate and evaluate high-performance, energy-efficient, and cost-effective secondary window retrofit system to be installed in an existing commercial building in Indian Wells, and adopting staff's determination that this action is exempt from CEQA.

*Public Comment:*

*Sara Beaini from EPRI commented on this item.*

*Commissioner Gallardo moved to approve Item 9. Commissioner Monahan seconded. The vote was Yes (3-0).*

**10. Advancing Environmental Monitoring Technologies for Floating Offshore Wind – GFO-22-401.**

This solicitation sought research and development projects that support EPIC initiatives relating to Inspection and Monitoring Systems for Floating Offshore Wind (FOSW) Applications and Environmental Research for FOSW Development. These projects will advance environmental monitoring technologies to support efforts by FOSW operators, state agencies, and others to evaluate potential biological and ecological implications of FOSW deployments. This item includes three projects totaling \$8,900,868. (EPIC Funding) Contact: Mark Danielson (Staff Presentation: 10 minutes)

- a. Integral Consulting Inc. Proposed resolution approving agreement EPC-23-001 with Integral Consulting Inc. for a \$3,400,868 grant to develop and validate an integrated, real-time, multi-scale system to monitor avian interactions with floating offshore wind turbines, and adopting staff's determination that this action is exempt from CEQA. This project will help minimize non-technical risks

associated with environmental permitting and increase knowledge of potential wildlife impacts in marine waters offshore California.

- b. Lawrence Berkeley National Laboratory. Proposed resolution approving agreement EPC-23-002 with Lawrence Berkeley National Laboratory for a \$3,500,000 grant to develop and validate an integrated, real-time, monitoring system to concurrently monitor marine mammal and ocean environmental impacts from floating offshore wind turbines, and adopting staff's determination that this action is exempt from CEQA. This project will help reduce costs, increase resiliency, and increase knowledge of potential wildlife impacts in marine waters offshore California.
- c. Humboldt State University Sponsored Programs Foundation. Proposed resolution approving agreement EPC-23-006 with Humboldt State University Sponsored Programs Foundation for a \$2,000,000 grant to develop an environmental monitoring sensor package, and adopting staff's determination that this action is exempt from CEQA. The monitoring sensor package will be able to detect debris entanglements with underwater mooring lines, transmit relevant information about the location of the entanglement, and deploy a remotely operated vehicle to inspect, identify, and characterize entangled debris.

*Public Comment:*

*Nikola Lakic from Geothermal Worldwide, Inc. commented on this item.*

*Kelly Boyd with Equinor supports this item.*

*Marcus Chevitaese from Site Here, Inc. supports this item.*

*Scott Morgan with Golden State Wind commented on this item.*

*Commissioner Gallardo moved to approve Item 10. Commissioner Monahan seconded. The vote was Yes (3-0).*

## **11. Advancing Designs for Floating Offshore Wind Mooring Lines and Anchors – GFO-22-402.**

This solicitation sought projects that advance the design of floating offshore wind mooring lines and anchors to address the site-specific needs of California's Wind Energy Areas. Projects will optimize costs by developing efficient designs and reduce the risk of impacts to wildlife and their habitats. Investments will result in shared knowledge of optimal strategic designs and configurations for floating offshore wind installations. This item includes three projects totaling \$8,422,100. (EPIC Funding) Contact: Mark Danielson (Staff Presentation: 10 minutes)

- a. University of Maine System Acting Through the University of Maine (University of Maine). Proposed resolution approving agreement EPC-23-005 with the University of Maine for a \$2,162,676 grant to develop a taut-synthetic integrated mooring system for a floating offshore wind turbine platform, and adopting staff's determination that this action is exempt from CEQA. The project will emphasize reducing and optimizing hardware and connections, as well as increasing commercial feasibility and ease of installation.
- b. RCAM Technologies, Inc. Proposed resolution approving agreement EPC-23-003 with RCAM Technologies, Inc. for a \$3,699,424 grant to advance the design and development of two 3D concrete printed anchors for floating offshore wind energy systems, suitable for a California Wind Energy Area, and adopting staff's



determination that this action is exempt from CEQA. This project will develop a lower cost anchor that facilitates local concrete manufacturing in California ports and minimizes environmental impacts during installation and operation.

- c. Alliance for Sustainable Energy, LLC. Proposed resolution approving agreement EPC-23-008 with Alliance for Sustainable Energy, LLC, as the manager and operator for the National Renewable Energy Laboratory, for a \$2,560,000 grant to fund the development of comprehensive shared-mooring solutions for floating offshore wind turbines that minimize the cost, risk, and footprint of gigawatt-scale floating wind farms in California conditions, and adopting staff's determination that this project is exempt from CEQA.

*Public Comment:*

*Molly Croll with American Clean Power Association supports Item 10 & Item 11.*

*Jason Cotrell from RCAM Technologies supports this item.*

*Kelly Boyd from Equinor supports this item.*

*Erin Kester from RWE Renewables is in support of Item 10 & Item 11.*

*Scott Morgan from Golden State Wind is in support of this item.*

*Commissioner Gallardo moved to approve Item 11. Commissioner Monahan seconded. The vote was Yes (3-0).*

**12. Minutes.**

Possible approval of the June 16, 2023, Business Meeting minutes.

*Commissioner Gallardo moved to approve Item 12. Monahan seconded. The vote was Yes (3-0).*

**13. Lead Commissioner or Presiding Member Reports.**

*The Commissioners reported on their recent activities.*

**14. Executive Director's Report.**

*The Executive Director had nothing to report.*

**15. Public Advisor's Report.**

*The Public Advisor had nothing to report.*

**16. Chief Counsel's Report.**

*The Chief Counsel had nothing to report.*

*There being no further business the meeting was adjourned.*

Respectfully submitted,

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KRISTINE BANAAG  
Secretariat