



April 11, 2018

1516 Ninth Street
Art Rosenfeld Hearing Room – First Floor
Sacramento, California 95814

10 a.m.

(Wheelchair Accessible)

THE COMMISSION WILL CONSIDER AND MAY TAKE ACTION ON THE FOLLOWING ITEMS:

1. CONSENT CALENDAR. (Items on the Consent Calendar 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. ALLIANCE CENTURY ENERGY FACILITY (01-EP-04C). Proposed order approving the petition to change operational control of the Alliance Century Simple-Cycle Power Plant Project from Colton Power LP to Alliance Energy Marketing, LLC. Contact: Keith Winstead.
 - b. ALLIANCE DREWS ENERGY FACILITY (01-EP-05C). Proposed order approving the petition to change operational control of the Alliance Drews Simple-Cycle Power Plant Project from Colton Power LP to Alliance Energy Marketing, LLC. Contact: Keith Winstead.
2. HIGH DESERT POWER PLANT (97-AFC-01C). Proposed order adopting the Committee Recommended Decision Granting the Petition to Drought-Proof the High Desert Power Plant (HDPP) and Errata. The HDPP is an operational, 830-megawatt (MW) water-cooled, natural-gas-fired, combined-cycle electric generating facility located in Victorville, San Bernardino County. The HDPP was certified by the Energy Commission on May 3, 2000, and began commercial operation in April 2003. The Committee Recommended Decision includes changes to the conditions of certification for soil and water resources, and creates new standards for the sources and uses of water for HDPP cooling needs; makes permanent the HDPP's use of percolation for banking State Water Project water; and imposes certain penalties for failing to meet or exceeding the use of recycled water. Contact: Susan Cochran. (Staff presentation: 5 minutes)
3. ENERGY EFFICIENCY STANDARDS RULEMAKING FOR PORTABLE ELECTRIC SPAS AND BATTERY CHARGER SYSTEMS (18-AAER-02). Proposed resolution adopting a Negative Declaration, including a finding of No Significant Impact under the California Environmental Quality Act (CEQA), and adopting changes to Title 20, §1602-1607 to modify existing appliance efficiency regulations for portable electric spas and battery chargers. Contact: Jessica Lopez. (Staff presentation: 20 minutes)
 - a. NEGATIVE DECLARATION FOR THE PROPOSED ENERGY EFFICIENCY REGULATIONS FOR PORTABLE ELECTRIC SPAS AND BATTERY CHARGER SYSTEMS. Negative Declaration, which includes a finding of No Significant Impact under CEQA, for the proposed regulations for portable electric

spas and battery charger systems. This adoption hearing comes after the end of the 30-day comment period necessary to comply with CEQA guidelines.

- b. **APPLIANCE ENERGY EFFICIENCY REGULATIONS FOR PORTABLE ELECTRIC SPAS AND BATTERY CHARGER SYSTEMS.** Changes to Title 20, §1602-1607 to modify existing appliance efficiency regulations for portable electric spas and battery charger systems. The changes for portable electric spas include: clarifying the scope; updating the test procedure to accommodate exercise spas and combination spas; updating the performance standard; creating a separate standard for inflatable spas; updating the certification requirements to align with the proposed standard; and adding a labeling requirement. The proposed change for battery charger systems is to make the "BC" marking requirement applicable only to state-regulated battery charger systems, as the federal efficiency standards do not include a marking requirement for federally-regulated products. This adoption hearing comes after a 45-day and separate 15-day comment period.
4. **ENERGY PROGRAM INVESTMENT CHARGE (EPIC) 2017 ANNUAL REPORT.** Proposed resolution approving the EPIC 2017 Annual Report to the Legislature. Contact: Heather Bird. (Staff presentation: 15 minutes)
5. **ORDER INSTITUTING INFORMATIONAL (OII) PROCEEDING (18-IEPR-01).** Proposed order adopting an OII proceeding to gather and assess information for analyses identified in the 2018 IEPR Update Scoping Order. Contact: Heather Raitt. (Staff presentation: 5 minutes)
6. **CITY OF TULARE SOLAR PHOTOVOLTAIC (PV) PROJECT.** Proposed resolution approving Agreement 001-17-ECA with the City of Tulare for a \$3 million loan at 1 percent interest to install a single-axis photovoltaic system totaling 2.41MWdc at its wastewater treatment plant. Over the useful life of the equipment (17 years), this project will save approximately 82,223 megawatt-hours (MWh) of electricity and save the city approximately \$72,000 in utility costs. The total project cost is estimated to be \$7,700,000. The simple payback period is 6.7 years. (ECA funding) Contact: David Michel. (Staff presentation: 5 minutes)
7. **CALIFORNIA BIOENERGY LLC.** Proposed resolution adopting CEQA Findings for California Bioenergy LLC's Kern Dairy Cluster Biomethane Upgrading Facility Project and approving Agreement ARV-17-008 with California Bioenergy LLC. (ARFVTP funding) Contact: Akasha Kaur Khalsa. (Staff presentation: 5 minutes)
 - i. **CEQA FINDINGS.** Findings that, based on the lead agency Kern County's 2015 Final Environmental Impact Report for Revisions to the Kern County Zoning Ordinance, the proposed project presents no new significant or substantially more severe environmental impacts beyond those already considered and mitigated.
 - ii. **CALIFORNIA BIOENERGY LLC'S KERN DAIRY CLUSTER BIOMETHANE UPGRADING FACILITY PROJECT.** Agreement with California Bioenergy LLC for a \$3,050,000 grant to design, build, and operate a centralized biomethane upgrading facility to clean biogas from anaerobic digesters at a dairy cluster in Kern County. The project will produce 500,000 diesel gallon equivalents of renewable natural gas per year, which will be used to fuel heavy-duty compressed natural gas trucks and buses.
8. **ADDRESSING BARRIERS TO WIDER ADOPTION OF NEAR-ZERO EMISSION NATURAL GAS VEHICLES, GFO-17-503.** This solicitation sought proposals to fund research, development, and demonstration projects that will address specific barriers preventing large scale deployment of near-zero emission natural gas vehicles to improve air quality and reduce greenhouse gas emissions from California's transportation sector. (PIER funding) Contact: Peter Chen. (Staff presentation: 5 minutes)

- a. TRANSPORTATION POWER, INC. Proposed resolution approving Agreement PIR-17-008 with Transportation Power, Inc., for a \$1.5 million grant to develop and demonstrate a natural gas hybrid drayage truck with a series hybrid design that uses a heavily downsized natural gas engine to significantly extend the operating range. The truck will demonstrate lower fuel consumption without compromising performance or emissions. The project involves the integration of a natural gas auxiliary power unit, improved engine controls, high energy batteries, and an innovative electric axle technology to meet the project goals while minimizing weight, cost, and complexity.
 - b. INSTITUTE OF GAS TECHNOLOGY. Proposed resolution approving Agreement PIR-17-009 with the Institute of Gas Technology for a \$1,499,381 grant to develop a natural gas, plug-in, hybrid-electric drayage truck using a whole-system approach to controls design to optimally balance major subsystems over critical duty cycles. The vehicle will use a near-zero emission natural gas engine in a parallel hybrid configuration to improve performance while dramatically reducing emissions and maximizing fuel economy.
9. ENHANCING SAFETY, ENVIRONMENTAL PERFORMANCE, AND RESILIENCE OF CALIFORNIA'S NATURAL GAS SYSTEM, GFO-17-502. This solicitation sought proposals to fund energy-related environmental research that will develop innovative methods to protect natural gas infrastructure; enhance the Cal-Adapt platform; develop methodologies for improved life cycle accounting for imported natural gas; increase cost effectiveness of methane leak detection; and identify building stock in disadvantaged communities that would benefit the most from retrofitting activities. (PIER funding) Contact: Katharina Snyder. (Staff presentation: 5 minutes)
- a. UNIVERSITY OF CALIFORNIA, IRVINE. Proposed resolution approving Agreement PIR-17-011 with The Regents of the University of California, on behalf of the Irvine campus for a \$550,000 grant to analyze natural gas samples collected at major natural gas basins in the U.S. for their chemical and isotopic composition, and to develop a methodology enabling identification of the basin of origin. Results from this research will support life-cycle accounting of methane emissions from the natural gas supply chain.
 - b. UNIVERSITY OF CALIFORNIA, BERKELEY. Proposed resolution approving agreement PIR-17-012 with The Regents of the University of California, on behalf of the Berkeley campus for a \$1 million grant to enhance the Cal-Adapt platform through the integration of new research results (including results from California's Fourth Climate Change Assessment), and to add new visualizations and custom tools that are tailored to specific needs and requirements of natural gas sector stakeholders. Results from this research will provide actionable information on energy infrastructure and climate-related vulnerabilities, and resilience to natural gas sector stakeholders.
 - c. EAGLE ROCK ANALYTICS. Proposed resolution approving agreement PIR-17-014 with Eagle Rock Analytics for a \$200,000 grant to improve natural gas sector resilience to climate change through the continued development of Cal-Adapt, an interactive web-based platform for exploring local climate-related risks in California. The recipient will provide scientific support of tools and visualizations that expand analyses for applied decision-making, building on the principles of exploratory data analysis to clearly convey uncertainty and range of data.
 - d. INFRATERRA, INC. Proposed resolution approving Agreement PIR-17-013 with InfraTerra, Inc., for a \$549,500 grant to test and identify non-invasive and cost-

effective technologies for a survey of the structural integrity of Sacramento-San Joaquin Delta levees that protect natural gas infrastructure.

- e. DOE-LAWRENCE BERKELEY NATIONAL LABORATORY. Proposed resolution approving Agreement PIR-17-015 with the DOE's Lawrence Berkeley National Laboratory for a \$6 million grant to conduct a comprehensive field study identifying and mitigating methane emissions in the southern San Joaquin Valley, a region that has been impacted disproportionately by environmental issues arising from the natural gas system. This research will result in the advanced understanding of methane emissions while validating cost-effective new technologies and strategies that could be affordably applied in other parts of the state.
10. ELECTRIC POWER RESEARCH INSTITUTE, INC. Proposed resolution adopting CEQA Findings for Electric Power Research Institute (EPRI) to change the project demonstration sites, and approving Amendment 2 to agreement EPC-15-094 with EPRI. (EPIC funding) Contact: Heather Bird. (Staff presentation: 5 minutes)
- i. CEQA FINDINGS.
 - (a) City of Belmont: Findings that, based on the lead agency City of Belmont's Final Initial Study, Mitigated Negative Declaration and Mitigation, Monitoring, and Reporting Program, the work under the proposed project presents no new significant or substantially more severe environmental impacts beyond those already considered.
 - (b) County of Los Angeles: Findings that, based on the lead agency County of Los Angeles's Final Initial Study, Negative Declaration and Administrative Housing Permit authorizing the development, the work under the proposed project presents no new significant or substantially more severe environmental impacts beyond those already considered.
 - ii. EPRI Amendment: Amendment 2 for Agreement EPC-15-094 with Electric Power Research Institute (EPRI) to change the project demonstration sites, make minor scope changes, add subcontractors, reallocate funding across budget categories, and extend the term of the agreement by 12 months. As part of the technology transfer efforts for this project, EPRI will conduct workshops to share preliminary lessons learned with the building community prior to implementation of the 2019 Building Energy Efficiency Standards.
11. ADVANCING THE RESILIENCE AND ENVIRONMENTAL PERFORMANCE OF CALIFORNIA'S ELECTRICITY SYSTEM, GFO-16-311. This solicitation sought proposals to fund Applied Research and Development projects that reduce the environmental and public health impacts of electricity generation and develop tools to make the electricity system less vulnerable to climate-related risks. (EPIC funding) Contact: Katharina Snyder. (Staff presentation: 5 minutes)
- a. DOE-LAWRENCE BERKELEY NATIONAL LABORATORY. Proposed resolution approving Agreement EPC-17-035 with DOE's Lawrence Berkeley National Laboratory for a \$1.1 million grant to develop a holistic community action plan to achieve climate benefits and air quality improvements through energy efficiency measures, electrification, and distributed energy resources in the residential building and light-duty and medium-duty (LDV, MDV) transportation sectors in San Joaquin Valley.
 - b. UNIVERSITY OF CALIFORNIA, IRVINE. Proposed resolution approving Agreement EPC-17-045 with The Regents of the University of California, on behalf of the Irvine campus, for a \$1,099,760 grant to develop and evaluate urban

energy scenarios that will inform the design of a microgrid to improve air quality, reduce greenhouse gas emissions, support grid operation, and improve community resiliency to adverse events.

- c. UNIVERSITY OF CALIFORNIA, BERKELEY. Proposed resolution approving Agreement EPC-17-048 with The Regents of the University of California, on behalf of the Berkeley campus, for a \$1.1 million grant to advance the engagement of communities in the design of Sustainable Energy and Localized Futures Models in California's San Joaquin Valley Research. Critical "urban-agriculture interface zones" will be identified through the analysis of energy demands, retrofit potentials, and systems integration opportunities and challenges.
12. PROGRAMMATIC APPROACH TO EXISTING BUILDINGS RESEARCH, DEVELOPMENT AND DEMONSTRATION PROGRAM, GFO-17-304. This solicitation sought proposals to establish a comprehensive research and development program aimed at doubling the efficiency of existing buildings by 2030. These programs will span the full innovation pipeline from technology and strategy development (applied research) and customer demonstrations (technology demonstration/deployment) to overcoming market barriers. (EPIC funding) Contact: David Hungerford. (Staff presentation: 5 minutes)
- a. SONOMA CLEAN POWER AUTHORITY. Proposed resolution approving Agreement EPC-17-041 with Sonoma Clean Power Authority for a \$9,814,596 grant to develop and demonstrate a program that evaluates energy savings, cost effectiveness, and training requirements for innovative retrofit technologies and promotes the most promising technologies through multiple channels in existing residential and commercial buildings. The program includes training for building professionals, real estate professionals, and building departments. The goal is to accelerate adoption of energy efficiency upgrades and to complement current fire recovery efforts in Sonoma and Mendocino Counties.
13. DISTRIBUTION SYSTEM MODELING TOOLS TO EVALUATE DISTRIBUTED ENERGY RESOURCES, GFO-17-305. This solicitation sought proposals to fund research to improve dynamic distribution modeling tools that can determine operational impacts and integration strategies for high amounts of renewables, DER, including plug-in electric vehicles, and microgrids using advanced smart grid equipment. Projects will develop open source modeling tools that are capable of modeling all smart grid elements and simulating California's future smart distribution system. These tools will incorporate nonproprietary open source algorithms. (EPIC funding) Contact: Jamie Patterson. (Staff presentation: 5 minutes)
- a. ELECTRIC POWER RESEARCH INSTITUTE, INC. Proposed resolution approving Agreement EPC-17-039 with EPRI for a \$2 million grant to develop a publicly-available, open-source, microgrid valuation and optimization software tool to aide in the design of microgrid and distributed energy resource deployments.
 - b. DOE-SLAC NATIONAL ACCELERATOR LABORATORY. Proposed resolution approving Agreement EPC-17-047 with DOE's SLAC National Accelerator Laboratory for a \$1 million grant to create a data translation software tool to enable data translation and exchange between grid-planning applications.
 - c. DOE-SLAC NATIONAL ACCELERATOR LABORATORY. Proposed resolution approving Agreement EPC-17-046 with DOE's SLAC National Accelerator Laboratory for a \$3,068,781 grant to increase the speed of the open-source version of GridLAB-D.

- d. HITACHI AMERICA, LTD. Proposed resolution approving Agreement EPC-17-043 with Hitachi America, Ltd., for a \$2,999,699 grant to develop an intuitive user interface for GridLAB-D that provides a user-friendly environment for researchers, planners, developers, and regulators involved in distribution grid modeling.
14. ~~GREENBIZ GROUP INC. Proposed resolution approving Agreement 300-17-002 with GreenBiz Group Inc., for a \$4,851,189 contract to conduct forums and symposiums and develop multimedia materials to significantly expand technology transfer and knowledge dissemination of projects funded through EPIC. (EPIC funding) Contact: Adam Gottlieb. (Staff presentation: 5 minutes)~~
15. 2018 IEPR UPDATE RE: ENERGY EQUITY TOPICS. Staff update and discussion regarding energy equity topics that may be included or addressed in the 2018 IEPR Update, including current or completed programs and policies that have increased energy equity in California, development and implementation of energy equity indicators, and other efforts to ensure low-income and disadvantaged communities have opportunities to participate in and benefit from advancements and investments in energy efficiency, renewable energy, and clean transportation. Contact: Terra Weeks. (Staff presentation: 5 minutes)
16. DISCUSSION OF ENERGY COMMISSION PROGRESS RE: IMPLEMENTATION OF THE CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SENATE BILL 350). Staff presentation regarding progress on implementation of SB 350 requirements, including administration of the California Renewables Portfolio Standard program; review of local publicly owned electric utility integrated resource plans; revision of Commission data collection regulations to improve demand forecasting; identification of progress in meeting the bill's goals of 50 percent renewables procurement and doubling of energy efficiency; implementation of widespread transportation electrification; and preparation and publication of the study required by Public Resources Code §25327 regarding barriers for low-income customers to energy efficiency, weatherization, and renewable energy investments. Contact: Michael Sokol. (Staff presentation: 5 minutes)
17. 2017 DIVERSITY UPDATE REGARDING THE IMPLEMENTATION OF THE ENERGY COMMISSION DIVERSITY COMMITMENT. Staff presentations outlining Commission efforts to reach our Diversity Commitment to 1) increase participation of diverse business enterprises in our funding programs; and 2) increase the benefits of Commission programs and policy to disadvantaged communities. These include, but are not limited to, the EPIC Program, Alternative and Renewable Fuel and Vehicle Technology Program, Clean Energy Jobs Program (Prop 39), and the New Solar Home Partnership Program. Contact: Dorothy Murimi. (Staff presentation: 20 minutes)
18. **Minutes.** Possible approval of the March 21, 2018 Business Meeting minutes.
19. **Lead Commissioner or Presiding Member Reports.** A Lead Commissioner on a policy matter may report to the Commission on the matter and discussion may follow. A Presiding Member on a delegated committee may report to the Commission on the matter and discussion may follow.
20. **Chief Counsel's Report.** Pursuant to Government Code §11126(e), the Energy Commission may adjourn to closed session with its legal counsel to discuss any of the following matters to which the Energy Commission is a party:
- a. *In the Matter of U.S. Department of Energy (High Level Waste Repository), (Atomic Safety Licensing Board, CAB-04, 63-001-HLW); State of California v. United States Department of Energy (9th Cir. Docket No. 09-71014).*
 - b. *Communities for a Better Environment and Center for Biological Diversity v. Energy Commission (Court of Appeal, First Appellate District, # A141299).*

- c. *Energy Commission v. Electricore, Inc. and ZeroTruck* (Sacramento County Superior Court #34-2016-00204586)
- d. *National Electrical Manufacturers Association v. Energy Commission* (Federal District Court, Eastern District of California, #2:17-cv-01625)
- e. *Energy Commission v. United States Department of Energy* (Federal District Court, Northern District of California, #17-cv-03404).
- f. *City of Los Angeles, acting by and through, its Department of Water and Power v. Energy Commission* (Los Angeles Superior Court, Case No. BS171477).

Pursuant to Government Code §11126(e), the Energy Commission may also discuss any judicial or administrative proceeding that was formally initiated after this agenda was published; or determine whether facts and circumstances exist that warrant the initiation of litigation, or that constitute a significant exposure to litigation against the Commission, which might include:

- a. The licensing process for a nuclear waste storage repository at Yucca Mountain, Nevada.
- b. Alternative and Renewable Fuel and Vehicle Technology Program grant ARV-10-016 with the City of San Jose, including its subcontractor JUM Global, and the lawsuit between the two (5:16-cv-01462-HRL, United States District Court, Northern District of California [San Jose]).

21. **Executive Director's Report.**

22. **Public Adviser's Report.**

23. **Public Comment:** People may speak up to three minutes on any matter concerning the Energy Commission, with the exception of items appearing elsewhere on this agenda or items related to pending adjudicative (certification or enforcement) proceedings.

If you require special accommodations, contact Ponch Jones at 916-654-4425 five days before the meeting.

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To avoid occasional technical problems with the Commission's telephone link, the Commission recommends that a written comment also be submitted to the Public Adviser either by fax at 916-654-4493 or by email at publicadviser@energy.ca.gov by 5 p.m. two days before the scheduled business meeting.

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Adjournment of Hearings and Meetings: Depending upon time available and the orderly management of proceedings, the Commission may order adjournment (recess or postponement) of any noticed hearing or meeting to be continued to the next day, another specific date or time, or to the next business meeting, as appropriate. Any such adjournment will be noticed at the time the order of adjournment is made (Government Code §§11128.5, 11129).