



August 27, 2014

1516 Ninth Street
Hearing Room A – 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. CITY OF LOS ANGELES. Proposed resolution approving the City of Los Angeles's locally adopted building energy standards to require greater energy efficiency than the 2013 Building Energy Efficiency Standards. Contact: Joe Loyer.
 - b. NATIONAL ASSOCIATION OF STATE ENERGY OFFICIALS (NASEO). Proposed resolution approving Agreement 160-14-001 with National Association of State Energy Officials (NASEO) for an \$11,178 contract to formalize the Energy Commission's membership in NASEO. This one-year membership allows staff to connect with key policy and decision makers, officials from other state and territorial energy offices, and affiliates from the private and public sectors. The membership also provides a forum for exchanging information, ideas and resources, and to learn about new funding and partnership opportunities. (ERPA funding) Contact: Mary Cole.
2. ENERGY COMMISSION COMMITTEE APPOINTMENTS. Possible approval of appointments to the Energy Commission's Standing Committees and Siting Case Committees. Contact: Kevin Barker. (Staff presentation: 5 minutes)
3. 2013 PUBLIC DOMAIN CALIFORNIA BUILDING ENERGY CODE COMPLIANCE SOFTWARE-RESIDENTIAL, CBECC-RES, VERSION 3. Proposed resolution approving the 2013 Public Domain California Building Energy Code Compliance Residential software, CBECC-Res, version 3 that may be used to demonstrate performance compliance with the residential provisions of the 2013 Building Energy Efficiency Standards (also known as the Energy Code). Among other improvements, Version 3 is a major change to the Compliance Manager and incorporates increased processing speed, programming for additional HVAC systems and features, and corrections to compliance reports. The resolution also decertifies prior versions of the software and authorizes the Executive Director to approve updates and rescind approval of previous versions of CBECC-Res and previously-approved Alternative Calculation

4. 2013 PUBLIC DOMAIN CALIFORNIA BUILDING ENERGY CODE COMPLIANCE SOFTWARE-NONRESIDENTIAL, CBECC-COM, VERSION 3. Proposed resolution approving the 2013 Public Domain California Building Energy Code Compliance Nonresidential software, CBECC-Com, version 3 that may be used to demonstrate performance compliance with the nonresidential provisions of the 2013 Building Energy Efficiency Standards. Among other improvements, Version 3 incorporates programming for additional HVAC systems and process-related energy features. The resolution also decertifies previous versions of the software and authorizes the Executive Director to approve updates and rescind approval of previous versions of CBECC-Com and previously-approved Alternative Calculation Methods to incorporate the improvements implemented in the most recent Compliance Manager from CBECC-Com. (Public Resources Code, section 25402.1 (a) and (b).)
Contact: Martha Brook. (Staff presentation: 5 minutes)
- ~~5. CALIFORNIA ADVANCED LIGHTING CONTROLS TRAINING PROGRAM. Possible approval of California Advanced Lighting Controls Training Program (CALCTP) as an Acceptance Test Technician Certification Provider (ATTCP). This will allow CALCTP to train and certify field technicians and employers on the Building Energy Efficiency Standards lighting control acceptance tests. Contact: Tav Commins. (Staff presentation: 10 minutes)~~
- ~~6. NATIONAL LIGHTING CONTRACTORS ASSOCIATION OF AMERICA. Possible approval of the National Lighting Contractors Association of America (NLCAA) as an ATTCP. This will allow NLCAA to train and certify field technicians and employers on the Building Energy Efficiency Standards lighting control acceptance tests. Contact: Tav Commins. (Staff presentation: 10 minutes)~~
7. CITY OF LOS ANGELES. Proposed resolution approving Agreement 001-14-ECD with the City of Los Angeles for a \$3,000,000 loan at one percent interest to retrofit inefficient streetlights with light emitting diodes (LEDs). On completion, the project will save the City approximately 2,238 MWh and \$282,956 annually. In addition, the project will reduce 576 tons of CO₂ equivalent greenhouse gas emissions every year. Based on the loan amount, the simple payback is approximately 10.6 years. (ECAA funding)
Contact: Shahid Chaudhry. (Staff presentation: 5 minutes)
8. HARTNELL COMMUNITY COLLEGE DISTRICT. Proposed resolution approving Agreement 003-14-ECG with Hartnell Community College District for a \$3,000,000 loan at zero percent interest for energy efficiency and renewable energy measures at the Hartnell College main campus. These measures will include boiler upgrades and installing solar photovoltaic panels. The project is estimated to save the college 1,919,095 kWh and 3,671 therms, resulting in annual energy cost savings of \$228,531. Based on the loan amount, the simple payback is approximately 13.1 years. (ECAA-Ed funding)
Contact: Christopher Olvera. (Staff presentation: 10 minutes)
9. NEW SOLAR HOMES PARTNERSHIP GUIDEBOOK. Proposed resolution revising the New Solar Homes Partnership Guidebook (NSHP Guidebook). The NSHP Guidebook describes the requirements for participating in NSHP and receiving incentives for installing eligible solar energy systems on new residential construction located in specified investor-owned utility territories. Proposed changes to the NSHP Guidebook revise the program requirements and processes.

Contact: Le-Quyen Nguyen. (Staff presentation: 5 minutes)

10. IVANPAH SOLAR ELECTRIC GENERATING SYSTEM (07-AFC-5C). Proposed order granting the petition to amend the maximum allowable annual fuel usage limit for the auxiliary and nighttime preservation boilers from 328 to 525 million standard cubic feet of natural gas for each power block to optimize operations and maximize solar output. Contact: Joseph Douglas (Staff presentation: 10 minutes).
11. U.S. GEOLOGICAL SURVEY. Proposed resolution approving Agreement 500-14-001 with the U.S. Geological Survey for a \$325,000 contract to measure subsidence associated with the Delta Island levees using a ground-based mobile laser scanning, light detection and ranging technology system. The data gathered in this agreement will assist in safeguarding the natural gas system against risks posed by a failing Delta Island levee infrastructure and aggravated by sea level rise. (PIER natural gas funding)
Contact: Susan Wilhelm. (Staff presentation: 5 minutes)
12. ENERGY COMMISSION APPLICATION TO THE U.S. FISH AND WILDLIFE SERVICE. Proposed resolution directing the Executive Director to submit an application to the U.S. Fish and Wildlife Service (USFWS) for an incidental take permit pursuant to Section 10 of the Federal Endangered Species Act, for implementation of the Desert Renewable Energy Conservation Plan (DRECP). The completed permit application would be included with the public draft of the DRECP and Environmental Impact Statement/ Environmental Impact Review (EIS/EIR), which is scheduled to be released for public review and comment by the end of this summer. The proposed action is limited to authorizing the submittal of the application so that it may be published with the DRECP and EIS/EIR, and does not involve any consideration or approval of the DRECP and EIS/EIR at this time. Contact: Scott Flint. (Staff presentation: 10 minutes)
13. ELECTRIC VEHICLE CHARGING INFRASTRUCTURE GRANTS, PON-13-606. This grant solicitation sought proposals to install electric vehicle charging infrastructure along California highway corridors, at destination locations, at workplaces, and at multi-family unit dwellings. (ARFVTP funding)
Contact: Brian Fauble. (Staff presentation: 5 minutes)
 - a. CORRIDOR POWER, INC. Proposed resolution approving Agreement ARV-14-019 with Corridor Power, Inc. for a \$499,937 grant to deploy a fast-charging plaza consisting of ten electric vehicle fast chargers in Encinitas, CA.
 - b. COUNTY OF SONOMA. Proposed resolution approving Agreement ARV-14-020 with the County of Sonoma for a \$500,000 grant to renovate ten existing electric vehicle chargers and deploy three new electric vehicle chargers in Sonoma County.
14. FORESIGHT RENEWABLE SOLUTIONS, LLC. Proposed resolution approving Amendment 1 to Grant Agreement PIR-12-004 with Foresight Renewable Solutions, LLC, to expand the project scope to include a flow battery energy storage system in place of compressed air energy storage. This change is necessary due to an unexpected interruption in the compressed air energy storage supply chain. (PIER natural gas funding) Contact: Michael Kane. (Staff presentation: 5 minutes)
15. TRUSTEES OF THE CALIFORNIA STATE UNIVERSITY. Proposed resolution approving the six highest ranking grant applications totaling \$854,016 from the Public Interest Energy Research (PIER) program's Natural Gas Energy Innovations Small Grant

Solicitation 14-01. These grants were competitively selected and are capped at \$150,000 each. (PIER natural gas funding) Contact: Raquel Kravitz. (Staff presentation: 10 minutes)

- a. West Biofuels, LLC., San Rafael, CA, *On-Site Agricultural Biomass Gasification as a Natural Gas Substitute*, Liao, Chang-Hsien, \$150,000. This project will determine the feasibility of using currently under-utilized agricultural biomass residues for conversion to synthetic gas to replace or blend with natural gas for direct, on-site industrial and agricultural use. If successful, this project will benefit California ratepayers by providing a viable alternative to natural gas to help achieve environmental and energy sustainability goals.
- b. Physical Sciences Inc., Pleasanton, CA, *Natural Gas Leak Detection Sensor for Widely Deployable Networks*, Frish, Michael, \$150,000. Natural gas leaks from pipeline infrastructure are potential safety risks as well as greenhouse gas sources. This project will determine the feasibility of developing miniature methane laser sensors to detect natural gas leaks in pipelines. The goal is to achieve low-cost mass production and low power consumption for widespread deployment of the sensors at gas meters and other key locations within the natural gas pipeline infrastructure. If successful, this project will benefit California ratepayers by decreasing the safety risks associated with natural gas leaks from gas pipelines.
- c. Palios Corporation, Santa Clara, CA, *Apparatus for In-Situ Determination of Gas Pipeline Yield Strength*, Stephanou, Phillip, \$148,087. This project will determine the feasibility of using a novel ultrasonic measurement system to enable quick and cost effective non-destructive determination of the yield strength of undisturbed and in-place steel natural gas transmission pipelines in the field. If successful, this project will benefit California ratepayers by improving public safety and reducing the cost and disruptions to service caused by intrusive measurements or unnecessary repairs.
- d. University of California, Davis, Davis, CA, *Energy-Efficient Clothes Dryers: Self-Calibrating Automatic Cycle Termination Controller*, Pistochini, Theresa, \$129,614. This project will develop a low-cost, self-calibrating automatic controller to reduce energy use in gas clothes dryers by 20 percent or more, through accurately terminating the drying cycle when the remaining moisture content of the load is two percent or less. If successful, this project will benefit California ratepayers by reducing the cost to operate clothes dryers.
- e. University of California, Davis, Davis, CA, *Enrichment of Microbial Communities for Biogas Production in High-Solids*, Simmons, Christopher, \$126,315. This project will enhance biorenewable methane production by improving anaerobic digestion through development and characterization of a microbial community adapted to high-solids conditions. This project targets seasonal food processing residues, and aims to facilitate the distribution and to accelerate the adoption of anaerobic digestion in the food processing industry. If successful, this project will benefit California ratepayers by increasing renewable biomethane production to offset fossil fuel use.
- f. Solar Stream Innovations, Chino Hills, CA, *Enhancing Winter Solar Water Heating and High Temperature Chiller Operation*, Lee, Jeffrey, \$150,000. This project will determine the feasibility of fabricating a vacuum insulated manifold for retrofitting evacuated tube solar water heating collectors to increase winter water and space heating, and to generate high temperatures for efficient summer

chiller operation. If this project is successful, the impact of the proposed project on California ratepayers will be to decrease natural gas peak demand during the winter for heating and during the summer for electricity generation.

16. **Minutes:** Possible approval of the July 22, 2014, Business Meeting Minutes.
17. **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.
18. **Chief Counsel's Report:** The Energy Commission may adjourn to closed session with its legal counsel [Government Code Section 11126(e)] 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).*
 - b. *Asphalt Roofing Manufacturers Association v. Energy Commission (Third District Court of Appeal # C076990).*
 - c. California Independent System Operator Corporation (Federal Energy Regulatory Commission, Docket No. ER12-2634).
 - d. *PECG v. Brown (Alameda County Superior Court # RG10494800 [Furlough Litigation].)*
 - e. *American Public Gas Association v. U.S. Department of Energy, Case No. 11-1485 (9th Cir. Dec. 23, 2011).*
 - f. *Energy Commission v. SoloPower, Inc. and SPower, LLC. (Sacramento County Superior Court # 34-2013-00154569)*
 - g. *Laborers' International Union of North America, Local #1184 v. Energy Commission (Blythe Solar Energy Center), (Supreme Court # S220286).*
 - h. *Communities for a Better Environment and Center for Biological Diversity v. Energy Commission (Court of Appeal, First Appellate District, # A141299).*
 - i. *Helping Hand Tools and Rob Simpson v. Energy Commission (Sacramento County Superior Court # 34-2014-80001904 [Quail Brush].)*

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.

19. **Executive Director's Report.**
20. **Public Adviser's Report.**
21. **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.

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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).