



**June 13, 2012**

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

**10 a.m.**

(Wheelchair Accessible)

**THE COMMISSION WILL CONSIDER 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. INTER-CON SECURITY SYSTEMS, INC. Possible approval of Amendment 9 to Contract 200-07-004 with Inter-Con Security Systems, Inc. for unarmed security service. The amendment will add \$110,000 and extend the term from July 1 to December 31, 2012, to complete negotiations concerning the master service agreement administered by the California Highway Patrol, and include changes to update the contract terms and conditions. (ERPA funding.) Contact: Emily Oren.
  - b. E3M INC. Possible approval of Amendment 1 to Contract 400-09-027 with E3M Inc. for a 12-month no-cost time extension to align the contract end date with the end date of the funding grant with the U. S. Department of Energy and to include changes to update contract terms and conditions. (DOE funding.) Contact: Lance D. Shaw
  - c. DRAW PROFESSIONAL SERVICES, INC. Possible approval of Amendment 1 to Contract 400-09-28 with Draw Professional Services, Inc. for a 12-month no-cost time extension to align the contract end date with the end date of the funding grant with the U. S. Department of Energy and to include changes to update contract terms and conditions. (DOE funding.) Contact: Lance D. Shaw
  - d. HUDSON TECHNOLOGIES COMPANY. Possible approval of Amendment 1 to Contract 400-09-029 with Hudson Technologies Company for a 12-month, no-cost time extension to align the contact end date with the end date of the funding grant with the U. S. Department of Energy and to include changes to update the contract terms and conditions. (DOE funding.) Contact: Lance D. Shaw.
  - e. PLEXOS. Possible approval of Purchase Order 11-435.01-029 for \$91,300 to renew the Energy Commission license for Power Systems software, produced by Energy Exemplar, through June 13, 2013. Electricity Analysis staff use the PLEXOS production cost modeling software to simulate the California and

Western U. S. grids, analyze energy system operations and market trends, and inform California energy policy decisions through the IEPR process and other forums. (ERPA funding.) Contact: Christopher McLean.

- f. MATHWORKS. Possible approval of Purchase Order 11-445.01-013 with Mathworks for \$46,075 for five individual MatLab software license key packages needed for staff to manage, modify, and fully utilize the transportation energy demand forecasting model system (DynaSim). MatLab will enable staff to analyze software discrepancies and customize model runs, thereby increasing the transparency and defensibility of the forecasts provided by the DynaSim system. (ERPA funding.) Contact: Vanessa Kritlow
2. ABENGOA MOJAVE SOLAR PROJECT (09-AFC-5C). Possible approval of the petition to amend the California Energy Commission Decision for the Abengoa Mojave Solar Project to remove the wording in Condition of Certification BIO-7 requiring vehicular traffic during project construction and operation not to exceed a speed of 25 miles per hour on Harper Lake Road. Contact: Dale Rundquist (10 minutes)
3. CALIFORNIA ENERGY DEMAND 2012-2022 FINAL FORECAST. Possible adoption of the staff final report *California Energy Demand 2012-2022 Final Forecast*. The adopted electricity and end-user natural gas consumption and peak demand forecasts support the Commission's Integrated Energy Policy Report process and the California Public Utility Commission's Long-term Procurement Process as well as other energy planning studies and assessments. Forecasts for California as a whole and for each major utility planning area within the state are included in the report. Contact: Chris Kavalec. (10 minutes)
4. CITY OF HAYWARD. Possible approval of Agreement 004-11-ECF for a loan of \$3 million to the City of Hayward to upgrade 7,599 streetlights with LED fixtures. The project is estimated to save 2,801,573 kilowatt hours of electricity annually, and reduce greenhouse gas emissions by approximately 967 tons annually. (ECAA program funding.) Contact: Amir Ehyai. (5 minutes)
5. AEMETIS, INC. Possible approval of Agreement ARV-11-017 for a grant of \$1,875,528 million to Aemetis, Inc. to cost share the development of a 1 million gallon per year capacity pre-commercial facility in Keyes, California using agriculture waste and cellulosic material for the production of ethanol. (ARFVTP funding.) Contact: Larry Rillera. (5 minutes)
6. KENT BIOENERGY CORPORATION. Possible approval of Agreement ARV-11-020 for a grant of \$1,496,426 to Kent BioEnergy Corporation for the Fermentable Sugars for Ethanol from Microalgal Biomass Project to develop processes and assess commercial fuel production feasibility. The project will develop methods of cell lysis and separation of the carbohydrate component, invent bio-engineered sugar releasing enzymes, and produce lab-scale quantities of fermentable sugars and ethanol. (ARFVTP funding.) Contact: Akasha Kaur Khalsa. (5 minutes)
7. CLEAN WORLD PARTNERS, LLC. Possible approval of Agreement ARV-11-021 for a grant of \$6 million to Clean World Partners, LLC to increase Sacramento Bio-Refiner's capacity from 25 tons per day (TPD) to 100 TPD. This project will result in diverting 100

- TPD of source-separated food waste from landfills to produce 566,000 diesel gallon equivalent of renewable natural gas and generate 3.17 million kilowatt hours of electricity every year. (ARFVTP funding.) Contact: Shahid Chaudhry. (5 minutes)
8. EDENIQ, INC. Possible approval of Agreement ARV-11-018 for a grant of \$3.9 million to EdeniQ, Inc. to develop and demonstrate EdeniQ's cellulosic ethanol production technology. The project includes feedstock evaluation, pretreatment and enzyme tests, equipment development and optimization, and demonstration of two ton per day cellulosic ethanol biorefinery. (ARFVTP funding.) Contact: John Mathias. (5 minutes)
  9. UNIVERSITY OF CALIFORNIA DAVIS. Possible approval of Contract 600-11-005 for \$2,770,072 with the Regents of the University of California on behalf of the Davis Campus to conduct research comparing the value, benefits, and drawbacks of all types of alternative fuels and fuel uses in California, including updates on rollout scenarios and transition strategies, research on consumer perceptions, research on biofuel investment and deployment scenarios, assessment of low carbon options for the light duty vehicle sector, an assessment of natural gas as a transportation fuel, and development of case studies of potential biomass feedstock sources in California. (ARFVTP funding.) Contact: John Mathias. (5 minutes)
  10. BEAR VALLEY UNIFIED SCHOOL DISTRICT. Possible approval of Agreement ARV-11-023 for a grant of \$300,000 to Bear Valley School District to install a new compressed natural gas (CNG) fueling station that has both time-fill and fast-fill capability and can meet the current CNG fueling needs of the school district and allow the district to expand its fleet of CNG vehicles. (ARFVTP funding.) Contact: John Mathias (5 minutes)
  11. CITY OF RIVERSIDE. Possible approval of Agreement ARV-11-031 for a grant of \$200,000 to the City of Riverside for a compressed natural gas station at the city's water quality control plant. The station will be used for city fleet vehicles and also be accessible to the public. (ARFVTP funding.) Contact: Donald Coe. (5 minutes)
  12. ATLAS DISPOSAL INDUSTRIES. Possible approval of Agreement ARV-11-028 for a grant of \$300,000 to Atlas Disposal Industries to construct a new compressed and renewable natural gas fueling station in Sacramento to support private, public, and school fleet operators. (ARFVTP funding.) Contact: Donald Coe. (5 minutes)
  13. SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. Possible approval of Agreement ARV-11-025 for a grant of \$217,000 to South Coast Air Quality Management District (SCAQMD). SCAQMD and Southern California Gas Company (Gas Company) will develop compressed natural gas (CNG) fueling infrastructure to support public retail sales for light-duty vehicles and trucks associated with goods movement and other fleet operations. It will also fuel Gas Company's growing private fleet of CNG powered vehicles. (ARFVTP funding.) Contact: Lindsee Tanimoto. (5 minutes)
  14. SYSCO FOOD SERVICES OF LOS ANGELES, INC. Possible approval of Agreement ARV-11-033 for a grant of \$600,000 to develop a publicly-accessible liquefied natural gas (LNG) terminal to fuel its goods movement fleet in Riverside. It will offer an LNG refueling station for other natural gas truck users along the I-215 corridor. (ARFVTP funding.) Contact: Lindsee Tanimoto. (5 minutes)

15. NORTH STAR BIOFUELS LLC. Possible approval of Agreement ARV-11-035 for a grant of \$500,000 to North Star Biofuels LLC to develop a commercial scale biodiesel blending facility in Watsonville, California. The facility will help California meet the growing demand for low carbon fuels. The project will establish biodiesel blending at an existing facility. (ARFVTP funding.) Contact: Andre Freeman. (5 minutes)
16. NATIONAL RENEWABLE ENERGY LABORATORY. Possible approval of Contract 600-11-002 for \$2,152,273 for a Cooperative Research and Development Agreement with the National Renewable Energy Laboratory to assist in the planning, implementation, and evaluation of the Alternative and Renewable Fuel and Vehicle Technology Program. Expert analysis of program investments and how effective they are in addressing economic, environmental, energy security, and petroleum reduction goals will be provided. (ARFVTP and ECAA funding.) Contact: Andre Freeman. (10 minutes)
17. UNITED STATES FOREST SERVICE. Possible approval of Amendment 1 to Contract 600-10-006 with the U. S. Department of Agriculture, Forest Service Pacific Southwest Research Station to add \$361,716 to the project “Assessing the Sustainability of Forest Biomass Utilization in California.” The proposed amendment supports activities and personnel excluded from the original agreement, which examines the sustainability of forest biomass utilization for biofuels production. (ARFVTP funding.) Contact: Bill Kinney. (5 minutes)
18. UNIVERSITY OF CALIFORNIA DAVIS. Possible approval of Contract 600-11-006 for \$227,000 with the Regents of the University of California on behalf of the Institute for Transportation Studies (ITS) to enable the completion of Tasks 8 and 9 of Contract 600-10-006, “Assessing the Sustainability of Forest Biomass Utilization in California,” with the U. S. Forest Service-Pacific Southwest Research Station. ITS will assess the impacts of biofuel demand on biorefinery location, and it will also develop a comprehensive Forest Products LCA Assessment. (ARFVTP funding.) Contact: Bill Kinney. (5 minutes)
19. TMDGROUP, INC. Possible approval of Contract 600-11-007 for \$2,210,000 with tmdgroup, inc. for an outreach and marketing agreement that will represent an initial launch of a professionally developed campaign based on research to inform and influence key California stakeholders (i.e. goods movement leaders, fleet owners, independent vehicle operators) to the benefits of lower carbon clean alternative fuels, and advanced vehicle technologies. (ARFVTP funding.) Contact: David Nichols. (5 minutes)
20. GAS TECHNOLOGY INSTITUTE. Possible approval of Agreement PIR-11-029 for a grant of \$1,733,000 to Institute of Gas Technology dba Gas Technology Institute to demonstrate waste heat recovery in industrial exhausts for stackless furnaces. The length of this agreement is 33 months. This project includes \$850,000 in match funding. (PIER natural gas funding.) Contact: Michael Lozano. (5 minutes)
21. GAS TECHNOLOGY INSTITUTE. Possible approval of Agreement PIR-11-028 for a grant of \$1,767,185 to Institute of Gas Technology dba Gas Technology Institute to develop and demonstrate an advanced, fuel-flexible combined heat and power system. This novel system will be developed, built and demonstrated at the San Bernardino Water Reclamation Plant to assess its technical and economic viability. This project includes \$870,388 in match funding. (PIER natural gas funding.) Contact: Pablo Gutierrez. (5 minutes)

22. BIODIESEL INDUSTRIES OF VENTURA, LLC. Possible approval of Agreement PIR-11-030 for a grant of \$1,829,544 to Biodiesel Industries of Ventura, LLC to demonstrate the integration of several emerging energy generation technologies to utilize waste products and reduce energy cost for biodiesel production at a facility located at the U. S. Naval Base in Port Hueneme, California. This project includes \$2,012,670 in match funding. (PIER natural gas funding.) Contact: Heather Bird. (5 minutes)
23. QUANTITATIVE BIOSCIENCES, INC. Possible approval of Agreement PIR-11-032 for a grant of \$1.5 million to Quantitative Biosciences, Inc. to develop and demonstrate a simple and affordable “turnkey” algae-based waste treatment method for California dairies that will produce energy, save water, and reduce greenhouse gas emissions. This project includes \$860,000 in match funding. (PIER natural gas funding.) Contact: Anish Gautam. (5 minutes)
24. WESTERN COOLING EFFICIENCY CENTER. Possible approval of Amendment 2 to Contract 500-08-042 with the Regents of the University of California on behalf of the Western Cooling Efficiency Center to add \$800,000, extend the contract by 23 months to March 13, 2015, and include changes to update the contract terms and conditions. The funding will be for research projects in the areas of building sealing, ground source heat pumps, hydronic heating systems, and water re-use. (PIER electricity and natural gas funding.) Contact: Golam Kibrya. (5 minutes)
25. CALIFORNIA LIGHTING TECHNOLOGY CENTER. Possible approval of Amendment 2 to Contract 500-08-053 with the Regents of the University of California, California Lighting Technology Center to add \$1.5 million, extend the contract term 24 months to March 30, 2015, and include changes to update the contract terms and conditions. The funding will be for five projects: Light Emitting Diode (LED) Replacement Lamp Testing Program, Next Generation Adaptive Interior Lighting, Next Generation Adaptive Exterior Lighting, Market Transformations and Standards Support, and expanding demonstration efforts in the industrial/agricultural sector. Total cost share for these projects is estimated at \$715,000. (PIER electricity funding.) Contact: Dustin Davis. (5 minutes)
26. UNIVERSITY OF CALIFORNIA IRVINE. Possible approval of Contract 500-11-028 for \$397,236 with the Regents of the University of California on behalf of the Irvine Campus to model the trade-offs of possible fuel paths for California biomass and biogas utilization and to quantitatively assess the energy and environmental impacts, including greenhouse gas emissions of each fuel path, with emphasis on air quality improvement and economic viability. (PIER electricity funding.) Contact: Joe O’Hagan. (5 minutes)
27. UNIVERSITY OF CALIFORNIA MERCED. Possible approval of Contract 500-11-026 for \$258,383 with the Regents of the University of California on behalf of the Merced Campus to determine the type and amount of air pollutants formed during combustion of synthesis gas generated from a plasma-assisted biomass gasification process. The project will also study the economic implications and challenges of using such technology to produce heat and power including the cost benefits of reducing pollutants in non-attainment areas such as California’s Central Valley. This project includes \$50,000 cost share from Foret Plasma Labs. (PIER electricity funding.) Contact: Joe O’Hagan. (5 minutes)

28. CALIFORNIA STATE UNIVERSITY FULLERTON. Possible approval of Contract 500-11-030 for \$164,201 with California State University, Fullerton Auxiliary Services Corporation to determine air quality effects of biogas from anaerobic digesters using treated food waste. Emissions from beneficial uses of this type of biogas will also be investigated through field sampling and analysis. (PIER electricity funding.) Contact: Joe O'Hagan. (5 minutes)
29. LAWRENCE BERKELEY NATIONAL LABORATORY. Possible approval of Contract 500-11-027 for \$1.1 million with the U. S. Department of Energy, Lawrence Berkeley National Laboratory to conduct a comprehensive investigation of emissions and leakages from the natural gas system and evaluate opportunities to reduce methane emissions from the California natural gas system. In consultation with industry partners, researchers will identify cost-effective reduction strategies and technologies. (PIER natural gas funding.) Contact: Joe O'Hagan. (5 minutes)
30. CALIFORNIA INSTITUTE FOR ENERGY AND ENVIRONMENT. Possible approval of Contract 500-11-033 for \$1,193,197 with the Regents of the University of California on behalf of the California Institute for Energy and Environment to investigate the potential environmental implications of various future energy development scenarios in California. (PIER electricity funding.) Contact: Joe O'Hagan. (5 minutes)
31. KEMA, INC. Possible approval of Contract 500-11-029 for \$3.5 million with KEMA, Inc. to provide technical support for the Research and Development Division. Work will be assigned to the contractor via work authorizations on an "as needed" basis (PIER electricity and natural gas funding and GRDA funding.) Contact: Leah Mohney. (5 minutes)
32. KEMA, INC. Possible approval of Amendment 1 to Contract 600-09-012 with KEMA, Inc. for \$200,000 to add Task 7 to estimate net job creation, retention, and other economic effects attributable to the Energy Commission's ARRA-funded programs, add a subcontractor, and update contract terms. (ERPA funding.) Contact: Monica Rudman. (5 minutes)
33. ASPEN ENVIRONMENTAL GROUP. Possible approval of Contract 700-11-027 for \$15 million with Aspen Environmental Group to provide environmental and engineering services for three years to support the Energy Commission's power plant licensing, power plant compliance, and transmission corridor designation programs. (EFLCF and ERPA funding.) Contact: Joseph Merrill. (5 minutes)
34. **Minutes:** Possible approval of the May 31, 2012, Business Meeting Minutes.
35. **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.
36. **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. *Public Utilities Commission of California* (Federal Energy Regulatory Commission, Docket No. EL10-64-000); *and Southern California Edison Company, et al.* (Federal Energy Regulatory Commission, Docket No. EL10-66-000);
- c. *BNSF Railway Company v. US Department of Interior, California Energy Commission* (U.S. District Court Central District of California-Riverside, CV 10-10057 SVW (PJWx));
- d. *Richard Latteri v. Energy Resources, Conservation and Development Commission, et al.* (Sacramento County Superior Court, 34-2011-99985);
- e. *Communities for a Better Environment, Robert Sarvey v. California Public Utilities Commission, Energy Resources Conservation and Development Commission, Real Parties in Interest, Pacific Gas and Electric Company, Contra Costa Generating Station, LLC* (California Supreme Court, S194079).
- f. *Rick Tyler, et al v. Governor of California, Edmund G. Brown, Jr., et al.* (Alameda County Superior Court, RG12619687).
- g. *California Unions for Reliable Energy v. Energy Resources Conservation and Development Commission, Real Parties in Interest Ormat Nevada, Inc., ORNI 18 LLC, and ORNI 19 LLC* (Alameda County Superior Court, RG 12610669).

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.

- 37. **Executive Director's Report.**
- 38. **Public Adviser's Report.**
- 39. **Public Comment:** People may speak up to five 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 Lourdes Quiroz at 916-654-5146, five days before the 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)