

DOCKET

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DATE MAY 09 2012

RECD. MAY 30 2012

BUSINESS MEETING
STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION

CEC BUILDING
HEARING ROOM A
1516 9TH STREET
SACRAMENTO, CALIFORNIA

WEDNESDAY, MAY 9, 2012

10:09 A.M.

TIFFANY C. KRAFT, CSR
CERTIFIED SHORTHAND REPORTER
LICENSE NUMBER 12277

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1 APPEARANCES

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3 COMMISSIONERS MEMBERS

4 Mr. Robert B. Weisenmiller, Chairperson

5 Mr. Andrew McAllister, Commissioner

6 Ms. Carla Peterman, Commissioner

7 Mr. Karen Douglas, Commissioner

8
9 STAFF

10 Mr. Rob Oglesby, Executive Director

11 Mr. Michael Levy, Staff Counsel

12 Ms. Jennifer Jennings, Public Advisor

13 Ms. Harriet Kallemeyn, Board Secretary

14 Mr. Pat Perez, Deputy Director

15
16 STAFF PRESENTING

17 Mr. Rizaldo Aldas

18 Mr. Kevin Barker

19 Ms. Heather Bird

20 Ms. Martha Brook

21 Mr. Phil Cazel

22 Ms. Cheryl Closson

23 Mr. Jeffrey Doll

24 Ms. Aida Escala

25

APPEARANCES CONTINUED

STAFF PRESENTING

Mr. Guido Franco

Mr. Andre Freeman

Mr. Anish Gautum

Mr. Steve Ghadiri

Ms. Aleccia Gutierrez

Mr. Pablo Gutierrez

Mr. Mike Kane

Mr. Rajesh Kapoor

Mr. Michael Lozano

Mr. John Mathias

Mr. Jim McKinney

Ms. Misa Milliron

Mr. Joe O'Hagan

Mr. Jamie Patterson

Mr. Kiel Pratt

Mr. Paul Roggensack

Ms. Monica Rudman

Mr. Chris Scruton

Ms. Consuelo Sichon

Mr. Ruben Tavares

Ms. Kate Zocchetti

1 APPEARANCES CONTINUED

2
3 ALSO PRESENT

4 Mr. Emil Abdelshehid, LADWP

5 Mr. Reed Addis, CALSTART

6 Mr. Manuel Alvarez, SCE

7 Mr. Anthony Andreoni, CMUA

8 Mr. Mel Assagai, Navistar, Electrification Leadership
Council

9 Mr. Tim Carmichael, California Natural Gas Vehicle
10 Coalition

11 Mr. John Clements, Director of Transportation, Kings
Canyon Unified

12 Mr. Peter Cooper, Better Place

13 Mr. Hall Daily, CalTech

14 Mr. John Flores, Valley Duct Testing

15 Mr. Andy Foster, Aemetis, Inc.

16 Mr. Norm Furuta, US Department of Navy

17 Mr. Stephen Francis, Assemblymember Perea representative

18 Mr. Kurt Grossman, G-Energy

19 Mr. Michael Hagman, Friant Power Authority

20 Mr. James Hendry, San Francisco Public Utilities
21 Commission

22 Ms. Bonnie Holmes-Gen, American Lung Association

23 Mr. Randy Howard, Los Angeles Department of Water and
Power

24

25

APPEARANCES CONTINUED

ALSO PRESENT

Mr. Kyle Jenke, Business Development

Mr. Steven Kelly, Independent Energy Productions
Association

Mr. Chris Knudson, Autogrid

Mr. Neil Koehler, Pacific Ethanol

Ms. Jane Luckhardt, CalCERTS

Mr. Matt Miyasato, South Coast AQMD

Mr. George Nesbitt, CalHERS

Ms. Blair Swezey, SunPower Corporation

Mr. Tim Tutt, SMUD

Mr. Jeremy Weinstein, Pacific Corp.

Mr. Chuck White, Waste Management

Mr. Eric White, ARB

Ms. Valerie Winn, PG&E

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1. Consent Calendar

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a. STANFIELD SYSTEMS INCORPORATED. Possible approval of Amendment 1 to Purchase Order 10-409.00-004 with Stanfield Systems, Incorporated to add \$29,900 for additional technical support for the Dynamic Simulation Transportation Energy Model (DynaSim). The revised contract total will be \$329,048. (ERPA funding.) Contact: Laura Lawson.
Motion 103
Vote 103

b. MATHWORKS. Possible approval of Purchase Order 11-409.00-018 for \$25,500 for Mathworks' MatLab training for 12 Energy Commission staff. Training will enable staff to manage, modify, and fully utilize the recently developed transportation energy demand forecasting modeling system, DynaSim, which utilizes several MatLab executables as the primary computational core. (ERPA funding.) Contact: Vanessa Kritlow.
Motion 103
Vote 103

c. NATIONAL RENEWABLE ENERGY LABORATORY. Possible approval of Amendment 1 to Contract 500-08-058 with the U.S. Department of Energy, National Renewable Energy Laboratory for a nine-month no-cost time extension to March 30, 2013 to allow time to schedule a technology forum and assess new findings in the area of natural gas vehicles and infrastructure and meet all deliverables, including the final report. (PIER natural gas funding.)
Contact: Reynaldo Gonzalez.

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d. STANFORD UNIVERSITY. Possible approval of Amendment 1 to Agreement PIR-10-054 with Stanford University for a no-cost extension of the term of the agreement by one year to October 30, 2013. (PIER electricity funding.) Contact: David Weightman.

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e. CLEAN ENERGY STATES ALLIANCE. Possible approval of Contract 400-11-003 for \$60,000 to renew the Energy Commission membership in the Clean Energy States Alliance (CESA). CESA is a unique multistate collaboration of public clean energy funds and state agencies working together to develop and these technologies. (RRTF funding.) Contact: Sarah Taheri.

Motion	103
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f. MEMORANDUM OF UNDERSTANDING WITH THE ENERGY COMMISSION, MALAYSIA. Possible approval of a Memorandum of Understanding between the Energy Commission, Malaysia and the California Energy Commission to promote a partnership and cooperation in the areas of energy efficiency, demand-side management, renewable energy development, integrated resource planning, electricity regulation, and transmission pricing. Contact: Reneé Webster-Hawkins.

Motion	103
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2. ENERGY COMMISSION COMMITTEE APPOINTMENTS. Possible approval of appointments to the Energy Commission's Standing Committees and Siting Case Committees. Contact: Kevin Barker. (5 minutes)

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- 3 3. COMPLAINT AND REQUEST FOR INVESTIGATION OF 6
- 4 VALLEY DUCT TESTING (Docket No. 12-CAI-02):
- 5 Possible appointment of an Energy Commission
- 6 committee to conduct proceedings as set forth
- 7 in Commission Regulations sections 1230
- 8 and following, on the complaint and request for
- 9 investigation of Valley Duct Testing,
- 10 filed on behalf of CalcERTS, related to the
- 11 accuracy of ratings submitted to CalcERTS
- 12 by Valley Duct Testing Raters under the Energy
- 13 Commission's California Home Energy
- 14 Rating System Program. Contact: Caryn Holmes
- 15 (5 minutes)
- 16 Motion 16
- 17 Vote 16
- 18
- 19 4. 2012-2013 Investment Plan UPDATE FOR THE 16
- 20 ALTERNATIVE AND RENEWABLE FUEL AND VEHICLE
- 21 TECHNOLOGY PROGRAM. Possible adoption
- 22 of the 2012-2013 Investment Plan Update for the
- 23 Alternative and Renewable Fuel and
- 24 Vehicle Technology Program. The purpose of the
- 25 program is to develop and deploy
- innovative technologies that transform
- California's fuel and vehicle types to help
- attain the state's climate change goals. The
- Energy Commission is required to develop and
- adopt the Investment Plan to determine priorities
- and opportunities for the program, describe how
- funding will complement existing public and
- private investments, and serve as a guide for
- funding decisions. Contact: Pat Perez.
- (30 minutes)
5. 2010-2011 Investment Plan FOR THE
- ALTERNATIVE AND RENEWABLE FUELS AND VEHICLE TECHNOLOGY
- PROGRAM. Possible approval of a modification to
- the 2010-2011 Investment Plan for the Alternative
- and Renewable Fuels and Vehicle Technology Program.
- Contact: Pat Perez. (10 minutes)

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- 3 6. RENEWABLES PORTFOLIO STANDARD ELIGIBILITY 104
- 4 GUIDEBOOK. Possible adoption of the Renewables
- 5 Portfolio Standard Eligibility Guidebook, Fifth
- 6 Edition. The RPS Eligibility Guidebook explains
- 7 the requirements and process for certifying
- 8 eligible renewable energy resources for the
- 9 California RPS program, and describes how the
- 10 Energy Commission tracks and verifies compliance
- 11 with the RPS. Contact: Kate Zocchetti.
- 12 (30 minutes)
- 13 Motion 176
- 14 Vote 176
- 15
- 16 7. OVERALL PROGRAM GUIDEBOOK FOR RENEWABLE 176
- 17 ENERGY PROGRAM.
- 18 Possible adoption of the Overall Program
- 19 Guidebook for the Renewable Energy Program,
- 20 Fourth Edition. The Overall Program Guidebook
- 21 describes how the Renewable Energy
- 22 Program is administered, and includes information
- 23 on requirements that apply to the Renewables
- 24 Portfolio Standard Program. The Overall Program
- 25 Guidebook provides information on appealing the
- Energy Commission's decisions regarding RPS
- certification, as well as a glossary of terms
- that are used by the RPS and other Renewable
- Energy Program elements.
- Contact: Kate Zocchetti. (20 minutes)
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8. JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY 177
- ENERGY FORUM.
- Possible approval of Contract 800-11-001 for
- \$150,000 with the James A. Baker III
- Institute for access to advanced research in the
- natural gas market area, including data,
- assumptions, inputs, and outputs for natural gas
- base case scenarios through 2015.
- (ERPA funding.) Contact: Ruben Tavares.
- (5 minutes)
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- Vote 178

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- 4 9. ARCHITECTURAL ENERGY CORPORATION. Possible 179
- 5 approval of Amendment 1 to Contract 400-10-015
- 6 with Architectural Energy Corporation to add
- 7 \$250,000 for continuing technical support services
- 8 to implement the 2013 Nonresidential Building
- 9 Energy Efficiency Performance Standards, modify
- 10 the terms and conditions, and extend
- 11 the rates through the end of the contract term.
- 12 (ERPA funding.) Contact: Martha Brook.
- 13 (5 minutes)
- 14 Motion 180
- 15 Vote 180
- 16
- 17 10. BRUCE A. WILCOX, P.E. Possible approval of 179
- 18 Amendment 1 to Contract 400-10-016
- 19 with Bruce A. Wilcox, P.E. to add \$250,000 for
- 20 continuing technical support services to
- 21 implement the 2013 Residential Building Energy
- 22 Efficiency Performance Standards,
- 23 modify the terms and conditions, and extend the
- 24 rates through the end of the contract
- 25 term. (ERPA funding.) Contact: Martha Brook.
- (5 minutes)
- Motion 180
- Vote 180
11. PACIFIC GAS AND ELECTRIC COMPANY. Possible 180
- approval of Amendment 1 to Contract 500-09-027
- with Pacific Gas and Electric Company to add
- \$500,000 and extend the term 18 months to
- June 30, 2014. This amendment will modify the
- scope of work, add a second sodium-sulfur battery
- energy storage system demonstration, and add a task
- to compare the performance of two large-scale
- battery systems in California to help
- mitigate the variability of renewable generation on
- the electric grid. (PIER electricity
- funding.) Contact: Consuelo Sichon. (5 minutes)
- Motion 182
- Vote 182

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5	ENVIRONMENT.	
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7	500-08-044 with the Regents of the University of	
8	California on behalf of the U. C. Berkeley-	
9	Center for the Built Environment to add \$600,000	
10	and extend the term 21 months to March 13, 2015.	
11	This amendment will demonstrate efficient personal	
12	comfort systems and develop operational strategies	
13	for spaceconditioning in near-zero energy commercial	
14	buildings. (PIER electricity and natural gas	
15	funding.) Contact: Chris Scruton. (5 minutes)	
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19	13. LAWRENCE BERKELEY NATIONAL LABORATORY.	185
20	Possible approval of Amendment 1 to Contract	
21	500-10-052 with the U.S. Department of Energy,	
22	Lawrence Berkeley National Laboratory to add	
23	\$1.55 million and fund six projects. The	
24	projects include enhancing energy simulation	
25	and benchmarking software, and conducting	
	research on hot water distribution systems,	
	thermostats, airflow instrumentation, and cool	
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	Contact: Heather Bird. (5 minutes)	
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	demonstrate the Biomass Blending and Densification	
	System (BBADS) process that will reduce the	
	energy and cost for densifying biomass for	
	fuel and animal feed. This project includes	
	\$481,391 in match funding. (PIER electricity	
	funding.) Contact: Michael Lozano. (5 minutes)	
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15. PALO ALTO RESEARCH CENTER, INCORPORATED. 190
Possible approval of Agreement PIR-11-006 for a
grant of \$1,001,899 to Palo Alto Research Center,
Incorporated to demonstrate its hydrodynamic
separation (HDS) technology. HDS
technology removes suspended solids during the
wastewater treatment process, effectively reducing
the energy needed for aeration and increasing biogas
production. The project includes \$380,817 in
match funding. (PIER electricity and natural
gas funding.) Contact: Anish Gautam. (5 minutes)
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16. KENNEDY/JENKS CONSULTANTS, INC. Possible 193
approval of Agreement PIR-11-018 for a grant of
\$1,418,800 to Kennedy/Jenks Consultants, Inc. to
demonstrate an intermediary treatment step to
reduce energy use and increase biomethane production
at wastewater treatment plants. The project includes
\$568,800 in match funding. (PIER
electricity funding.) Contact: Jeffrey Doll.
(5 minutes)
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17. UTS BIOENERGY LLC. Possible approval of 195
Agreement PIR-11-026 for a grant of
\$1,933,551 to UTS Bioenergy LLC to demonstrate a
retrofit technology to increase biogas production
and reduce organic solids disposal from wastewater
treatment plants. This technology will allow
wastewater treatment plants to increase biogas
production for on-site electricity generation.
The project includes \$607,722 in match funding
(PIER natural gas funding.)
Contact: Rajesh Kapoor. (5 minutes)
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3 18. AUTOGRID SYSTEMS. Possible approval of 198
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5 to AutoGrid Systems to demonstrate the use of its
6 Demand Response Optimization and Management System
7 (DROMS) platform at two industrial facilities.
8 The project will allow industrial customers to
9 participate in traditional demand response
10 (DR) programs targeted at reducing peak demand
11 and emerging DR programs designed to provide fast
12 responding ancillary services to the grid to support
13 large-scale integration of renewable generation.
14 The project includes \$603,100 in match funding.
15 (PIER electricity funding.) Contact: Anish Gautam.
16 (5 minutes)
17 Motion 201
18 Vote 201
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20 19. GREAT CIRCLE INDUSTRIES, INC. Possible approval 201
21 of Agreement PIR-11-011 for a grant of \$750,000
22 to Great Circle Industries, Inc., to test and
23 demonstrate, and obtain State of California Title
24 22 regulatory approval for a unique modular
25 wastewater treatment process that conserves energy
and water, and reuses water, and where beneficial,
plant nutrients. Obtaining regulatory approval is
needed in order to use the resulting "cleaned"
wastewater for direct irrigation. The project
includes \$250,000 in match funding. (PIER
electricity funding.) Contact: Heather Bird.
(5 minutes)
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20. BLACK & VEATCH. Possible approval of Agreement 203
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to Black & Veatch to demonstrate technology for
desalinating wastewater and power plant
cooling water which recovers water, produces no
salty liquid discharge, and reduces energy
consumption and operating costs. The project
includes \$249,000 in match funding. (PIER
electricity and natural gas funding.)
Contact: Paul Roggensack. (5 minutes)
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5	Agreement PIR-11-014 for a grant of \$974,179 to	
6	ICF International to demonstrate the use of a	
7	hybrid uninterruptable power supply (UPS) microturbine	
8	at a California datacenter. The modified Capstone	
9	microturbine will provide power quality during	
10	energy fluctuations and a power source in case of grid	
11	failure while taking the UPS off the grid. This UPS	
12	can be run on natural gas or renewable energy	
13	resources. The project includes \$504,189 in match	
14	funding. (PIER natural gas funding.)	
15	Contact: Paul Roggensack. (5 minutes)	
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21	grant of \$1.8 million to Berkeley Energy Sciences	
22	Corporation to demonstrate a flywheel energy	
23	storage device for peak-shaving applications.	
24	The project includes \$800,000 in match funding.	
25	(PIER electricity funding.) Contact: Kiel Pratt.	
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	Agreement PIR-11-008 for a grant of \$2 million to	
	West Biofuels, LLC to demonstrate a biomass	
	combined heat and power system to be deployed in	
	the agricultural/food processing sector. The	
	project includes \$1,450,829 in match funding.	
	(PIER natural gas funding.) Contact: Leah Mohney.	
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- 4 24. UNIVERSITY OF CALIFORNIA, BERKELEY. Possible 214
- 5 approval of Contract 500-11-017 for \$300,000 with
- 6 the Regents of the University of California on
- 7 behalf of the Berkeley campus to communicate data
- 8 and results collected during WESTCARB geologic
- 9 assessments and validation studies to stakeholders
- 10 and the public through an interactive website.
- 11 (Federal WESTCARB funding.) Contact: Kiel Pratt.
- 12 (5 minutes)
- 13 Motion 216
- 14 Vote 216
- 15
- 16 25. PACIFIC GAS AND ELECTRIC COMPANY. Possible 216
- 17 approval of Contract 500-11-018 for \$1,535,725
- 18 with Pacific Gas and Electric Company to explore
- 19 the feasibility of applying modern control systems
- 20 and other smart grid technologies to dynamically
- 21 control voltage to improve grid efficiency, reduce
- 22 electrical demand, improve system reliability and
- 23 lower energy consumption on the local distribution
- 24 system. (PIER electricity funding.) Contact: Jamie
- 25 Patterson. (5 minutes)
- Motion 220
- Vote 220
26. CALIFORNIA INSTITUTE FOR ENERGY AND ENVIRONMENT. 220
- Possible approval of Contract 500-11-019 for
- \$1,167,380 with the Regents of the University of
- California on behalf of the California Institute
- for Energy and Environment (CIEE) to conduct a
- field study to assess the capacity of renewable
- generation and electric vehicles on utility
- distribution circuits with San Diego Gas and
- Electric Company, Pacific Gas and Electric
- Company, and Southern California Edison.
- (PIER electricity funding.)
- Contact: Jamie Patterson. (5 minutes)
- Motion 222
- Vote 222

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- 4 27. CALIFORNIA INSTITUTE FOR ENERGY AND ENVIRONMENT.
5 Possible approval of Contract 500-11-021 for \$1.2
6 million with the Regents of the University of
7 California on behalf of the California Institute
8 for Energy and Environment (CIEE) to complete and
9 commercialize diagnostic tools to determine the
10 condition of underground electric cables.
11 (PIER electricity funding.) Contact: Jamie
12 Patterson. (5 minutes)
13 Motion 225
14 Vote 225
- 15 28. UNIVERSITY OF CALIFORNIA, DAVIS. Possible 225
16 approval of Contract 500-11-020
17 for \$2 million with the Regents of the University
18 of California on behalf of the Davis
19 Campus to provide resource, technical, barrier, and
20 economic assessments and research products on the
21 major renewable energy resources to support
22 achievement of California's renewable energy
23 deployment goals. Researchers from the University
24 of California, San Diego and the California Center
25 for Sustainable Energy will also participate in
assessments. (PIER electricity funding.) Contact:
Cheryl Closson. (5 minutes)
Motion 228
Vote 228
- 26 29. SACRAMENTO MUNICIPAL UTILITY DISTRICT. 228
27 Possible approval of Agreement PIR-11-005 for a
28 grant of \$500,000 to Sacramento Municipal Utility
29 District and approval of the first phase of work
30 to demonstrate and deploy renewable energy
31 technologies. The first phase involves bioenergy
32 subprojects, namely co-digestion of fats,
33 oil and grease and liquid food wastes, and
34 anaerobic digestion systems for New Hope and
35 VanWarmerdam dairies. This award will be cost-share
for the Recipient's \$5 million
American Recovery and Reinvestment Act of 2009 award.
(PIER electricity funding.)
Contact: Rizaldo Aldas. (5 minutes)
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6	grant of \$1 million to Los Angeles Department of	
7	Water and Power to establish protocols and	
8	standards in the Smart Grid Demonstration Project	
9	for the measurement and validation of energy	
10	savings and fossil fuel emissions reductions	
11	associated with an electric vehicle program by	
12	specifying, acquiring, and installing a	
13	sufficiently-sized electric vehicle demonstration	
14	network. This award will be cost-share	
15	for the recipient's American Recovery and	
16	Reinvestment Act of 2009 award for its total	
17	\$120.6 million project. (PIER electricity funding.)	
18	Contact: Avtar Bining. (5 minutes)	
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22	31. MODESTO IRRIGATION DISTRICT. Possible approval	234
23	of Agreement PIR-11-015 for a grant of \$149,315 to	
24	Modesto Irrigation District to upgrade its	
25	distribution system for improved communication and	
	control. This award will be cost-share for the	
	recipient's \$1,493,150 American Recovery and	
	Reinvestment Act of 2009 award. The project	
	includes \$2 million in match funding. (PIER	
	electricity funding.) Contact: Steve Ghadiri.	
	(5 minutes)	
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	to Burbank Water and Power to demonstrate integration	
	of smart grid technologies to improve grid	
	reliability, use of existing transmission assets, and	
	to facilitate integration of renewable resources.	
	This award will be cost-share for the recipient's	
	\$20 million American Recovery and Reinvestment Act of	
	2009 award and includes \$39 million in match funding.	
	(PIER electricity funding.) Contact: Steve Ghadiri.	
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5	approval of Agreement PIR-11-023 for a grant of	
6	\$1,502,699 to Southern California Gas Company to	
7	assess, design, and demonstrate the economical	
8	operation of combined heat and power in a stateof-	
9	the-art greenhouse. The project includes match	
10	funding of \$3,901,080. (PIER natural	
11	gas funding.) Contact: Pablo Gutierrez. (5 minutes)	
12	Motion	240
13	Vote	241
14	34. ZERE ENERGY AND BIOFUELS, INC. Possible approval	241
15	of Agreement PIR-11-016 for a grant of \$998,346	
16	to ZERE Energy and Biofuels, Inc., to develop and	
17	demonstrate a prototype combined heat and power	
18	system employing its air independent internal	
19	oxidation process. The project includes match	
20	funding of \$437,500. (PIER natural gas)	
21	Motion	244
22	Vote	244
23	35. LAWRENCE BERKELEY NATIONAL LABORATORY.	244
24	Possible approval of Contract 500-11-024 for	
25	\$600,000 with the U.S. Department of Energy,	
	Lawrence Berkeley National Laboratory to evaluate	
	the potential for geologic carbon sequestration	
	in California's Central Valley to adversely	
	affect groundwater quality. This award is part	
	of the match funding for a \$16 million federal	
	WESTCARB award. (PIER natural gas	
	funding.) Contact: Joe O'Hagan. (5 minutes)	
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	36. SHAWN SMALLWOOD. Possible approval of	248
	Agreement PIR-11-022 for a grant of	
	\$716,596 to Shawn Smallwood to evaluate the	
	potential of an innovative turbine design	
	to reduce avian collisions. The project includevs	
	\$174,498 in match funding. (PIER	
	electricity funding.) Contact: Joe O'Hagan.	
	(5 minutes)	
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37.	JOHN MAUTBETSCH. Possible approval of Agreement PIR-11-024 for a grant of \$749,577 to John Mautbetsch to conduct research on reducing wind effects on power plant air-cooled condenser performance. The project includes \$97,000 in match funding. (PIER natural gas funding.) Contact: Joe O'Hagan. (5 minutes)	251
	Motion	253
	Vote	253
38.	RANDEL WILDLIFE CONSULTING, INC. Possible approval of Agreement PIR-11-012 for a grant of \$606,257 to Randel Wildlife Consulting, Inc. to quantify desert kit fox movements, home ranges, disease, and mortality in areas affected by utility-scale solar developments. This information will provide a scientific baseline for developing guidelines to evaluate utility-scale solar development impacts on the desert kit fox. The project includes \$27,210 in match funding. (PIER electricity funding.) Contact: Misa Milliron. (5 minutes)	253
	Motion	255
	Vote	255
39.	REDLANDS INSTITUTE, UNIVERSITY OF REDLANDS. Possible approval of Agreement PIR-11-013 with Redlands Institute, University of Redlands, to improve a decision support technology to evaluate and mitigate impacts to the desert tortoise from solar developments in the Mojave Desert. The project includes \$43,723 in match funding. (PIER electricity funding.) Contact: Misa Milliron. (5 minutes)	255
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4	PIR-11-019 for a grant of \$474,843 to	
5	Oakbio, Inc. to field test a novel technology	
6	using a microbial system to capture and	
7	convert waste carbon dioxide from industrial flue	
8	gas sources such as power plants, oil	
9	refineries, and cement plants to valuable	
10	biochemicals. The project includes \$176,996 in	
11	match funding. (PIER electricity funding.)	
12	Contact: Guido Franco. (5 minutes)	
13	Motion	260
14	Vote	260
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16	41. KIVERDI, INC. Possible approval of Agreement	260
17	PIR-11-025 for a grant of \$747,126 to	
18	Kiverdi, Inc., to field test, refine, and create	
19	a commercial scale-ready novel microbial	
20	system to capture and convert waste carbon	
21	dioxide from power plant flue gas into high	
22	value oils. The project includes \$587,027 in	
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- 7 of Technology to fund the Joint Center for
- 8 Artificial Photosynthesis (JCAP), a Department of
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- 11 directly from sunlight. This award will be
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- 14 Contact: Aleecia Gutierrez. (5 minutes)
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- 23 projects. The RAND Corporation was selected from
- 24 a competitive request for proposals to evaluate
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- 9 powertrain system. The project will demonstrate
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- 11 Possible approval of Contract 500-11-025 for
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- 13 Lawrence Berkeley National Laboratory to
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- 5 A Lead Commissioner on a policy matter may report
- 6 to the Commission on the matter and discussion may
- 7 follow. A Presiding Member on a delegated committee
- 8 may report to the Commission on the matter
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- 11 52. Chief Counsel's Report: The Energy Commission
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- 13 legal counsel [Government Code Section 11126(e)]
- 14 to discuss any of the following
- 15 matters to which the Energy Commission is a party:
- 16 a. In the Matter of U.S. Department of Energy
- 17 (High Level Waste Repository), (Atomic Safety
- 18 Licensing Board, CAB-04, 63-001-HLW);
- 19
- 20 b. Public Utilities Commission of California
- 21 (Federal Energy Regulatory Commission, Docket
- 22 No. EL10-64-000); and Southern California Edison
- 23 Company, et al. (Federal Energy Regulatory
- 24 Commission, Docket No. EL10-66-000);
- 25
- 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,
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- et al v. Governor of California, Edmund G. Brown, Jr.,
- et al. (Alameda County Superior Court, RG12619687).

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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.

53. Executive Director's Report.	294
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1 We are thrilled Andrew is joining the Commission
2 for his first business meeting. I look forward to the
3 progress we will make with his knowledge and expertise.

4 Andrew will be becoming our lead Commissioner on
5 energy efficiency, among a variety of other things. And
6 certainly over the next month or two, you're going to see
7 more transition in that area.

8 COMMISSIONER MC ALLISTER: Thank you, Mr. Chair.
9 It's really a pleasure to be here. I'm really excited to
10 work with the Commission. I've worked with many staff
11 over the years on a variety of issues and have always been
12 impressed with the level of knowledge here and the
13 commitment to California's energy endeavors. And really
14 looking forward to rolling up my sleeves and getting
15 through the hazing process and just pitching in with the
16 team. All of this is a big team effort.

17 So with that, as my Committee assignments and
18 policy areas take further shape, definitely will be
19 looking forward to working with stakeholders and
20 Commission staff and the other Commissioners. And it's
21 just a fabulous group. And I'm very fortunate to be part
22 of it. So thank you very much.

23 COMMISSIONER DOUGLAS: If I could, I'd like to
24 join the Chair in welcoming Commissioner McAllister to the
25 Energy Commission. I've already had the pleasure of

1 having several wide ranging and extensive conversations
2 with him on energy efficiency. I think he brings an
3 expertise on energy efficiency and on-the-ground
4 experience in energy efficiency is going to be a
5 tremendous asset to the Commission, a tremendous help to
6 both the Commission and Commission staff in moving forward
7 with our appliance standards, building standards, and AB
8 758 in particular, which is where we need to put a lot of
9 focus.

10 So I'm really looking forward to his work and
11 contributions he will make in this area, as well as
12 others; his expertise in renewables and a lot of
13 experience in a wide-ranging set of areas that the
14 Commission works in, whether it's around land use or
15 transportation, particularly efficiency. I was really
16 pleased to see the expertise he brings in efficiency.
17 Welcome. Looking forward to working with you.

18 COMMISSIONER PETERMAN: Good morning.

19 Echo my fellow Commissioner's sentiments. Am
20 very excited to have Andrew here. He's going to bring a
21 wonderful perspective to the Commission, particularly the
22 experience he has in the southern part of the state, an
23 area where we're especially focused. And I'm happy to
24 relinquish my position as the most junior member of the
25 Commission and everything that comes with that.

1 COMMISSIONER MC ALLISTER: Excellent. So the
2 rookie is at your disposition.

3 CHAIRPERSON WEISENMILLER: Great. Okay. So
4 let's go to the consent items.

5 COMMISSIONER DOUGLAS: Move consent.

6 COMMISSIONER PETERMAN: Second.

7 CHAIRPERSON WEISENMILLER: All those in favor?
8 (Ayes)

9 CHAIRPERSON WEISENMILLER: Consent passes
10 unanimately.

11 CHAIRPERSON WEISENMILLER: Let's go to Item 2,
12 Energy Commission appointments.

13 Kevin Barker.

14 MR. BARKER: Good morning, Commissioners.

15 I have one change in the Siting Committee to
16 present for you. This is under Energy Commission Order
17 Number 12-0509-2. Pursuant to Section 25211 of the Public
18 Resources Code Section 1204 of Title 20, the California
19 Code of Regulations, the Energy Commission hereby
20 establishes the Committees identified below. The Order
21 supercedes Energy Commission Order Number 11-1005-2 and
22 any other previous Orders or portions of previous orders
23 which have either established new Committees or assigned
24 existing Committees of the Commission specific
25 proceedings.

1 If any prior order or assignment assigned
2 existing Committees of the Commission -- if any prior
3 Order established or assigned a Committee to a specific
4 proceeding, and such Committee is not identified herein,
5 then that Committee is deemed dissolved for that
6 proceeding and the matter withdrawn by the full Commission
7 pursuant to Section 1204(c), if the proceeding is still
8 active.

9 The Committee shall have the following hours and
10 duties in addition to those powers and duties set forth in
11 the Energy Commission regulations:

12 (A) Conduct proceedings, hold duly-noticed public
13 meetings and hearings, issue orders, and report to the
14 Energy Commission on proposed decisions on matters within
15 the Committee's jurisdiction as set forth within the
16 Energy Commission adopted orders instituting hearings or
17 formal rulemaking proceedings.

18 In addition to powers as specified in Title 20,
19 Section 1203, California Code of Regulations for the
20 conducting of hearings or meetings, the presiding member
21 of each Committee shall provide notices and agendas for
22 Committee meetings to the Commission.

23 The presiding member may provide a summary of
24 significant discussions and action items at a Commission
25 business meeting.

1 C. Unless otherwise ordered by the Commission,
2 these Committees dissolve 35 days after the final action
3 in their specific proceedings.

4 The change in the specific Committee is complaint
5 against request for investigation of CalCERTS, docket
6 number 12-CAI-01, Presiding Member Commissioner Douglas
7 and Associate Member Commissioner McAllister.

8 I ask for you to take this up.

9 COMMISSIONER PETERMAN: I'll move Item 2.

10 COMMISSIONER DOUGLAS: Second.

11 CHAIRPERSON WEISENMILLER: All those in favor?

12 (Ayes)

13 CHAIRPERSON WEISENMILLER: Item passes
14 unanimously.

15 COMMISSIONER DOUGLAS: This hasn't happened
16 recently because we've had only three Commissioners, but
17 when I came on the Commission, the Commissioners would
18 typically be handed one of these assignments. The
19 Commissioners not going on the Committee were very quick
20 to move and second. Welcome to the Committee.

21 COMMISSIONER MC ALLISTER: So you seconded
22 because you really want me on there.

23 COMMISSIONER DOUGLAS: I do.

24 COMMISSIONER MC ALLISTER: Excellent.

25 CHAIRPERSON WEISENMILLER: So let's look at Item

1 Number 3, Complaint and Request for Investigation of
2 Valley Duct Testing, Docket Number 12-CAI-02. Caryn.

3 MR. LEVY: Pardon me, Commissioners.

4 The item before you is possible appointment of a
5 Committee to preside over a complaint and request for
6 investigation which was filed with the Chief Counsel on
7 April 13th, 2012, by CalcERTS, a home energy rating system
8 provider, against Valley Duct Testing, a company that
9 hires a number of home energy rating system raters.

10 The complaint alleges that Valley Duct Testing is
11 "fostering the culture of submitting inaccurate rating
12 data into the CalcERTS registry."

13 The complaint is based on two documents prepared
14 by a former Valley Duct Testing employee, named William J.
15 Barrett, a complaint filed with CalcERTS by Mr. Barrett
16 against Valley Duct Testing and a declaration attached to
17 the complaint. Both documents allege maleficence by
18 Valley Duct Testing.

19 As you may recall in another complaint recently
20 filed with the Energy Commission, two raters employed by
21 Valley Duct Testing have challenged the re-certification
22 by CalcERTS earlier this year in proceeding 12-CAI-01. A
23 hearing has been scheduled in that proceeding for May
24 11th, 2012.

25 Although labeled as a complaint, the specific

1 action that CalCERTS requests is that the Energy
2 Commission undertake an investigation of Valley Duct
3 Testing and provide guidance to CalCERTS about how to
4 address problems associated with multi-rater entities.
5 The Energy Commission's regulation allow the Commission to
6 combine action on a complaint with an investigation under
7 Section 1230 of Title 20 of the California Code of
8 Regulations.

9 Assignment of this complaint to a Committee will
10 allow the Committee to take action on the complaint,
11 including making a decision about whether to serve the
12 complaint and initiate a formal proceeding.

13 A decision about service must be made prior to
14 May 14th, which is the deadline for service or dismissal
15 of the complaint under Section 1232 of our regulations,
16 absent an extension of time.

17 I'm happy to answer any further questions you may
18 have.

19 CHAIRPERSON WEISENMILLER: Thank you.

20 We have two members of the public who want to
21 comment on this. First Jane Luckhardt.

22 MS. LUCKHARDT: Hello. Jane Luckhardt on behalf
23 of CalCERTS.

24 I'm really here to answer questions if you have
25 questions of us. But I don't think I have anything in

1 addition to add to the complaint that we filed and request
2 for investigation.

3 So if you have any questions, I'm happy to answer
4 them. If not, I can sit down.

5 CHAIRPERSON WEISENMILLER: Why don't you sit down
6 for now.

7 We also have George Nesbitt on the line, I
8 believe.

9 MR. NESBITT: Yes. Can you hear me?

10 CHAIRPERSON WEISENMILLER: Yes

11 MR. NESBITT: Okay. Great. George Nesbitt.

12 I'm sort of the most active involved rater at the
13 moment.

14 What I want to say is in 1999 when the Energy
15 Commission regulated HERS raters, you did two things
16 differently and correctly from the rest of the country.
17 You separated the roles of provider and rater, plus, you
18 prohibited a conflict of interest, which are allowed
19 nationally. These were both very good things to protect
20 the customer and the integrity of the HERS rating system.

21 Unfortunately, it's kind of created a separation
22 between the Energy Commission raters and providers and the
23 raters.

24 Now, in the regulation, in the Title 20
25 regulation, QA and investigation and complaints is the

1 responsibility of the provider. While people can file
2 complaints with the Energy Commission, you know just in
3 general, this is specifically -- this is really the role
4 of the provider.

5 And CalCERTS has now done two investigations of
6 Valley Duct Testing. They suspended John Flores last year
7 and then in the fall. And then early in this year, they
8 decertified the two raters that work for Valley Duct
9 Testers, as well as they have investigated three of the
10 other raters that work for Valley Duct Testers and found
11 some problems.

12 So this request to investigate Valley Duct
13 Testers appears to (A) be retaliation for the Valley Duct
14 Tester raters' investigation of CalCERTS, as well as it
15 appears to be trying to shift the cost burden as well as
16 the liability of taking action against the raters from
17 CalCERTS to the Energy Commission, which it actually says
18 right in the request for investigation from CalCERTS.

19 What I need to remind you of is the Energy
20 Commission has no authority to discipline raters or rater
21 companies. And I need to remind you of Masco situation.
22 When the 2008 Energy Code started, Masco raters were
23 notified that they had a conflict of interest since Masco
24 owned installing contractors. They -- and apparently they
25 rated their own projects, made complaints. They failed to

1 take any actions. And several raters filed a complaint --
2 formal complaint with the Energy Commission. The Energy
3 Commission did an investigation. Masco admitted they had
4 a conflict of interest. The Energy Commission ruled that
5 Masco had a conflict of interest, yet the Energy
6 Commission could not and did not discipline Masco or the
7 raters. HERS subsequently still never did. Masco got out
8 of the rating business in California --

9 CHAIRPERSON WEISENMILLER: Could you wrap it up?
10 We're limited to three minutes per comment.

11 MR. NESBITT: Yeah.

12 So I would recommend that the Energy Commission
13 deny the request to investigate Valley Duct Testers based
14 on the fact you have no ability to actually do anything.

15 And what I'd like to suggest yet again is that
16 the Energy Commission, the HERS providers, and HERS raters
17 really need to sit down in a room and have discussions
18 about our industry, how things work, or not. And really
19 the only way to resolve potentially this kind of problem
20 is by doing a rulemaking and changing the Title 20
21 regulation.

22 CHAIRPERSON WEISENMILLER: Okay. Thank you.

23 We have John Flores in the room. Again, three
24 minutes.

25 Rob, somehow the timer doesn't seem to be going

1 off.

2 MR. FLORES: My name is John Flores. I own
3 Valley Duct Testing. And I would like to ask the
4 Commission consider not to accept the complaint for the
5 following reasons.

6 Their only case that they have is that they've
7 got a declaration from Mr. William Barrett, who was a
8 disgruntled ex-employee that got let go. There is no
9 facts -- hard facts based on William Barrett's
10 declaration.

11 And sorry I'm a little nervous.

12 And you know, it's either his word or it's
13 hearsay and his comments or his opinions. So some of the
14 things that he made opinions on, he's not even certified
15 to test. He's only been a rater for a short period of
16 time.

17 And so my -- if CalCERTS can produce proof, you
18 know, to the Commission that all the things that William
19 Barrett states are a fact, that would be a different
20 story. But at this point, I don't believe they have any
21 facts -- any hard facts at all. So thank you.

22 CHAIRPERSON WEISENMILLER: Thank you.

23 Commissioners, any questions or comments?

24 COMMISSIONER DOUGLAS: I have a brief comment.
25 The process under which this complaint was brought is a

1 process that has very tight time lines for the Chair
2 initially to make a decision about whether to serve the
3 complaint or whether to dismiss the complaint. And the
4 time lines provided in this process do not give the Chair
5 sufficient time to look into issues such as sufficiency of
6 the pleadings, jurisdiction, appropriate remedy, if any,
7 as some examples that were raised today.

8 And so I definitely hear the concerns that were
9 raised both by Mr. Nessbit and Mr. Flores. I think that
10 the concerns that they raised are concerns that we might
11 find have merit. And at the same time, we have a very
12 sparse record in front of us to justify dismissing a
13 complaint out of hand. That may, in fact, be the
14 appropriate place to go. I'm not certain about that at
15 this time.

16 I do know that when there are the allegations
17 that have been raised in this proceeding -- or not
18 proceeding -- but this complaint and a related proceeding,
19 they do raise questions about how we're administering the
20 HERS program and Mr. Nessbit's comments about whether
21 there is a need for a policy discussion and whether a
22 policy discussion is the right venue to take some of this
23 issue is also well taken.

24 That said, you know, I still would recommend that
25 you serve the complaint and appoint a Committee that would

1 probably extend the time line so that we're not sucked
2 into an immediate hearing, but rather that would take some
3 reasonable but short amount of time to look into issues
4 like sufficiency of the complaint and whether we think
5 it's appropriate that we handle the complaint or not.

6 That would be my recommendation.

7 COMMISSIONER PETERMAN: I appreciate,
8 Commissioner Douglas, your complaints/explanations. And
9 I'm fully in support of what you recommended, as well as
10 aware and thankful to hear the considerations that were
11 brought to us today by the public commentators.

12 COMMISSIONER MC ALLISTER: Commissioner Douglas
13 is the expert on the process here. I'm sure the other
14 three know much more than I do about this, so I'm going to
15 avoid commenting on the process.

16 But absolutely, there is no way to know whether
17 there is merit or not to the substance of the complaint.
18 And we want -- ideally, we would have a process that
19 effectively lets us figure out how much merit there is
20 there and what the process is to resolve the particular
21 issue in this case.

22 I would just say I think the broader issues of
23 the HERS marketplace and the pressures, for example, that
24 CalCERTS and the other providers are actually under, just
25 from the perspective of a business model and things like

1 that, are issues that need to be brought forth and with an
2 honest, open discussion about the role in the marketplace.

3 So I think that policy discussion should happen.
4 And there are lots of stakeholders with good things to say
5 about that, very valid things to say about that. So
6 that's not -- that's outside the scope of this particular
7 complaint, but I think the complaint highlights the need
8 for that discussion.

9 So I'm very much interested in having that policy
10 discussion on the term without the constraints around this
11 particular process, this particular complaint.

12 So I support what Commissioner Douglas says as
13 well and would -- do we need a motion here?

14 COMMISSIONER DOUGLAS: I think that what I would
15 suggest is that you appoint a Committee to oversee or to
16 handle this complaint and that the Committee make a
17 decision if the Commission is willing to delegate the
18 decision of whether or not to serve the complaint to the
19 Committee, then the Committee can take the next steps in
20 this matter.

21 CHAIRPERSON WEISENMILLER: Let's make a motion.
22 And the Committee would consist of you, as the presiding
23 member, and Member McAllister.

24 COMMISSIONER DOUGLAS: So I'll move that --

25 MR. LEVY: Would you specify for the record

1 whether the Committee that is the subject of the motion is
2 the same Committee that's already in the order or separate
3 Committee?

4 COMMISSIONER DOUGLAS: It is the same Committee
5 that's already in the order.

6 MR. LEVY: Thank you.

7 COMMISSIONER DOUGLAS: So I'll move to establish
8 the Committee that's set out in the order.

9 CHAIRPERSON WEISENMILLER: And that Committee can
10 decide to consolidate issues or to do them separate.

11 MR. LEVY: If the motion is that this complaint
12 be referred to the existing Committee, the Committee can
13 handle the proceedings as it deems appropriate whether to
14 consolidate and handle them separately or the like.

15 COMMISSIONER DOUGLAS: Serve or not serve the
16 complaint.

17 MR. LEVY: Correct.

18 COMMISSIONER PETERMAN: Is that a motion? I'll
19 second the motion.

20 CHAIRPERSON WEISENMILLER: All those in favor.

21 (Ayes)

22 CHAIRPERSON WEISENMILLER: Motion has been moved
23 and approved.

24 Let's go on to Item Number 4, which is the
25 2012/2013 Investment Plan Update for the Alternative and

1 Renewable Fuel and Vehicle Technology Program.

2 (Whereupon an overhead presentation was presented
3 as follows.)

4 DEPUTY DIRECTOR PEREZ: Good morning, Chairman
5 and Commissioners. And welcome, Commissioner McAllister.
6 We're excited to have you here. I'm sure the other
7 Commissioners are excited to share their workload with
8 you. So congratulations. We're very happy to have you.

9 Today with your permission, Chairman, what I'd
10 like to do is combine Items 4 and 5 on the agenda. I
11 think this will improve the efficiency of the presentation
12 that I'm about to deliver, which is the lead Commissioner
13 report for the 2012-2013 Investment Plan Update for the
14 Alternative and Renewable Fuels and Vehicle Technology
15 Program.

16 And I'd also like to open and acknowledge the
17 guidance and oversight and support that Commissioner
18 Peterman has provided throughout the development of this
19 report and to her advisors, Jim Bartridge and Tim Olsen,
20 who have worked side by side with my staff in developing
21 this report today.

22 So with that, I'm going to proceed through the
23 presentation quickly. As you're aware, the purpose of
24 this program is to develop and deploy innovative
25 technologies and transform California's fuel and vehicle

1 busy the last two or three months on that.

2 --o0o--

3 DEPUTY DIRECTOR PEREZ: Moving on to program
4 benefits. One of the things that we did earlier this year
5 is conduct a survey of our recipients to date so that we
6 can get a better feel for what the estimated public
7 benefits of these programs will be down the road. And as
8 described here in this slide, we're looking at some of the
9 significant estimated benefits both in displacing gasoline
10 and diesel use, as well as reducing greenhouse gas
11 emissions. So that range is roughly 380 million to 1.2
12 billion gallons, and fuel consumption displacement in the
13 year 2020 and greenhouse gas emission reductions between
14 2.7 million and 9.7 million metric tonnes by 2020.

15 Now, those are rather conservative estimates as
16 we move forward and award more projects and they're up and
17 operating, those numbers are going to increase
18 significantly over the next couple years.

19 --o0o--

20 DEPUTY DIRECTOR PEREZ: Moving onto the next
21 slide, some of the other program benefits that will accrue
22 through our investments include 376 million that we have
23 leveraged to date on outside funding, both private capital
24 and federal support.

25 What this translates into is that we've also

1 provided over 5,000 individuals with focused job training
2 that is going to be essential to move forward with the
3 implementation of these advanced technologies and emerging
4 fuels. And those have been conducted with our partners
5 over at the Employment Development Department and the
6 Employment Training Panel that we work closely with. And
7 I believe we have representatives here today that may add
8 to the discussion in this area.

9 We also were estimating roughly 1900 short-term
10 jobs, a little over 3,000 long-term jobs just created
11 through the projects that we've awarded. To date, again
12 these are conservative estimates. They're direct jobs.
13 We have not counted indirect jobs, which, when you add
14 that multiplier can double, triple the figures that are
15 before you today.

16 So many of these jobs focus on manufacturing,
17 construction, engineering jobs, broad, broad cross
18 section. We're continuing to assess program effectiveness
19 and ensure good geographic distribution for these funds
20 and projects on the training. And looking at high
21 unemployment areas is one of the keys.

22 --o0o--

23 DEPUTY DIRECTOR PEREZ: So in terms of the
24 overall schedule during these past four months, it has
25 been a very compressed scheduled. We released the first

1 draft back in January. Held an Advisory Committee meeting
2 on February 10th. Received significant input and comments
3 at the February 10th meeting, which led to revised staff
4 draft report being released in early April.

5 We then followed up shortly thereafter with a
6 second Advisory Committee meeting and then released the
7 lead Commissioner report on April 25th, which is before
8 you today. And if all goes well, we'll have an adopted
9 report this morning.

10 --o0o--

11 DEPUTY DIRECTOR PEREZ: In terms of the public
12 input and comment, very important in the development of
13 this report. We have a very engaged active Advisory
14 Committee meeting group that we work closely with that
15 helps us shape the priorities, the focus, and provides
16 input on the funding allocations in this report. They
17 assisted us in the development of the report that is
18 before you today.

19 This Advisory Committee is a very diverse group
20 of representatives from industry, environmental
21 organizations, other State entities and other public
22 agencies, academic institutions and other entities. So
23 very active and engaged Committee. And we really
24 appreciate the input they've provided.

25 Beyond the Advisory group, we've also benefited

1 from inputs from many private companies and other members
2 of the public that commented at these two meetings, as
3 well as supported us by providing written comments to the
4 docket. So we received a diverse array of comments from
5 over 40 groups and individuals. As you can see from the
6 slide, 37 sets of comments received to our public docket,
7 which are shared with all people.

8 In terms of ongoing meetings and a variety of
9 stakeholders, we're continuing to address items and issues
10 that we'll need to address in the upcoming Investment Plan
11 for 13/14 looking at the transition to advanced and
12 sustainable transportation fuels.

13 We're working very closely with our partners at
14 the Air Resources Board and industry on how to best apply
15 the Low-Carbon Fuel Standard credits for emissions and
16 greenhouse gas reductions as we treat them in our biofuels
17 awards and solicitations. That's a healthy dialogue that
18 is underway.

19 --o0o--

20 DEPUTY DIRECTOR PEREZ: Moving on to fuel
21 production and supply, just a little context and
22 background.

23 We've provided about \$51 million awarded to date.
24 We've combined previous separate allocations for diesel
25 substitutes. And when I refer to diesel substitutes, I'm

1 million to date through our previous Investment Plans.
2 Electric vehicle charging infrastructure, about \$7 1/2
3 million there looking at at-home overnight charging
4 remains a big priority for us based on input we received
5 from our stakeholders, growing interest from promoting
6 workplace fleet and multi-unit dwelling chargers; and very
7 importantly, coordinating to fulfill the Governor's recent
8 Executive Order on zero emission vehicles and
9 complimenting without supplanting some of the stations
10 funding under the NRG Energy, Incorporated, settlement.
11 So we mad some significant investments. Roughly \$17.4
12 million invested in infrastructure today for over 4,000
13 stations.

14 As part of this effort, we're working closely
15 with our regional partners, local governments. We've
16 awarded nine regional readiness plans to facilitate the
17 development of an electric vehicle network in this state.
18 And I believe shortly we'll have a tenth regional
19 readiness plan that we'll be bringing to you for action.

20 Hydrogen fueling infrastructure, big commitment
21 there, \$11 million. We've made a significant down payment
22 in the past towards moving towards hydrogen future.
23 Twelve stations funded to date for roughly \$18.7 million.

24 --o0o--

25 DEPUTY DIRECTOR PEREZ: In terms of the next

1 slide, just a few other areas I want to cover. Natural
2 gas fueling infrastructure, \$1.5 million there to support
3 deployment of additional natural gas vehicles. Some of
4 the funding here has been reduced from the previous
5 Investment Plans. And part of that is due to the timing
6 of the roll out of these vehicles and the stations. And
7 some of the under-subscription in recent solicitations,
8 particularly with the biodiesel.

9 With respect to E85 fueling infrastructure, we're
10 proposing 1.5 million there. The nice thing about E85 is
11 that it can immediately be used in over 400,000 flexible
12 fuel vehicles that are within California. We reduced the
13 award here -- not the award -- the proposed funding for
14 this allocation because of the current roll out of those
15 stations. We're a little behind schedule there. But we
16 expect those to accelerate. And a lot of it's influenced
17 by the national ethanol market and where prices are going
18 on.

19 Another complementary asset to E85 vehicles is
20 that these vehicles address our affordability issue.
21 We've been hearing in many forums some of the criticisms
22 with some of our other new and emerging vehicle
23 technologies that are inherently more expensive initially.
24 But as those fleets and vehicles increase, we expect the
25 price to continue to drop.

1 With E85, there is essentially no incremental
2 cost to these vehicles, so they're very affordable for the
3 common driver out there. And that's why we're very
4 supportive of providing continued funding there.

5 And having this market here in California also
6 provides a nice outlet for California's existing ethanol
7 facilities to help purchase the ethanol from these
8 facilities.

9 I'm also pleased to report that Propel, which is
10 one of our major grant recipients, will be holding a grand
11 opening for the Clean Mobility Center down in Fullerton on
12 May 16th. Commissioner McAllister and I will be going
13 down for that event. Very exciting, because not only are
14 they providing E85 at that station, but also biodiesel as
15 well as conventional fuels. And there will also be some
16 other very attractive features, such as the ability to
17 purchase carbon offsets down there.

18 --o0o--

19 DEPUTY DIRECTOR PEREZ: Next slide on natural gas
20 vehicles, 12 million there that we're providing immediate
21 petroleum and greenhouse gas emission reduction benefits.
22 Certainly the low price of natural gas has made this very
23 attractive. Encouraging suppliers to expand options and
24 production capacity as well as the fleets. Very much
25 interested in looking at expansion of renewable natural

1 gas.

2 We have more than a thousand natural gas vehicle
3 reservations through our very exciting and also a program
4 that has generated a lot of interest. And that is our
5 buy-down incentive program.

6 Propane, viable alternative fuel for those more
7 rural areas where natural gas is not available in
8 plentiful supplies. We've supported about 165 propane
9 vehicles to date there. But much of the request for
10 funding in that area has really fallen off. Something
11 we're going to be talking to the propane industry about as
12 we develop the next Investment Plan. So we kind of cut
13 back some of the proposed funding there.

14 MR. LEVY: Pardon me, Commissioners. Excuse me
15 for interrupting. I've just been having a side bar with
16 Commissioner McAllister. As you know, our conflicts
17 vetting complex is very complex. We have a lot of rules.
18 We were just looking at some of the AB 118 programs that
19 are implicated in the alternative vehicles program. We
20 noticed that clean vehicle rebates have been given to and
21 meant to CCSE to administer. And that is Commissioner
22 McAllister's former employer. And so we need to recuse
23 Commissioner McAllister from this item until we study it
24 further to fully understand all the implications of it.

25 COMMISSIONER MC ALLISTER: So I there are a lot

1 of issues I've been working through my first couple days
2 and lots of flags coming up. And we want to have an
3 abundance of caution here and not have any perception of
4 conflict of interest and obviously any real conflict of
5 interest.

6 And there is a couple million dollars with no
7 administration, no administrative burden was given to CCSE
8 as a complement to the core ARB funded program, the Clean
9 Vehicle Rebate Project. CCSE is an administrator of that.
10 It's an ARB program. It's not a Commission program. And
11 the funds brought no overheard. So it's not clear there
12 is a conflict of interest here, but we want to have an
13 abundance of caution because there are -- in this
14 Investment Plan that we're about to vote on, there's five
15 million of similar money that goes into the program.

16 COMMISSIONER PETERMAN: That is money that's
17 transferred to the Air Resources Board, so I respect your
18 decision to recuse yourself.

19 COMMISSIONER DOUGLAS: It's just as well you
20 spend your time in the little room over there.

21 COMMISSIONER MC ALLISTER: I believe I have to
22 return to that little room when you vote it out.

23 MR. LEVY: Thank you, Commissioners. My
24 apologies.

25 DEPUTY DIRECTOR PEREZ: Thank you. Okay. Great.

1 Moving on to the next slide --

2 --o0o--

3 DEPUTY DIRECTOR PEREZ: -- here I'm going to talk
4 a little bit about our deployment and demonstration
5 efforts on the next two slides with respect to alternative
6 fuel vehicles, five million here that we proposed.

7 We have a Clean Vehicle Rebate Program that is an
8 ARB program that we're very excited to be supporting.
9 This is for the hybrid zero emission truck and bus hybrid
10 voucher incentive program. Covers things such as
11 all-electric, plug-in hybrid, electric, and fuel cell
12 vehicles as part of this program.

13 The incentive demands for this program are likely
14 to out-strip supply in fiscal year 12-13. So we are
15 providing support there in the amount of \$5 million. This
16 is a pivotal year and compliments the Governor Brown's
17 March 23rd Executive Order for zero emission vehicles. By
18 providing this complementary support, we're achieving the
19 goals and objectives of that Executive Order.

20 In terms of the hybrid HVIP program, there's
21 still funding left in that account. You may hear later
22 from Air Resources Board on that and so we're not
23 proposing any additional funding in that. We'll re-visit
24 that as we move into the next Investment Plan. And we're
25 continuing, of course, to coordinate with ARB on all

1 funding incentive needs and amounts.

2 --o0o--

3 DEPUTY DIRECTOR PEREZ: In terms of the
4 demonstration, proposing \$6 million here, significant
5 ongoing interest in demonstration projects throughout the
6 state focusing on drayage and goods movement applications.
7 We anticipate in our next round of solicitations that
8 we're going to get a significant number of exciting
9 projects. So we're proposing six million for this fiscal
10 year, and we'll be returning next year with
11 reconsideration of possibly more.

12 At this time, I'd like to just pause. As I noted
13 at the beginning of ,y presentation, I wanted to wrap Item
14 5 and 4 into one package. And it's somewhat related here
15 what we're talking about alternative fuel vehicles and
16 demonstration projects.

17 And the second request that I have today is on
18 Item 5, which seeks your approval for a modification of
19 the 2010/2011 Investment Plan that was adopted a couple of
20 years ago. One of the requirements under Assembly Bill
21 109 was that any time we made changes to an Investment
22 Plan that were large, that we notify the Legislature. And
23 through this action, that's what we would be doing.

24 What we're proposing today under Item 5 is a
25 modification of the 2010-11 Investment Plan allocations.

1 Basically roughly 5.4 million we put into the record the
2 exact funding amount \$5,390,426 in unencumbered funds for
3 program support and as well as from a biodiesel
4 infrastructure solicitation where the demand was less than
5 what we had previously allocated.

6 So by combining those two, we can revise the
7 Investment Plan and fund a couple projects out of our
8 recent medium and heavy-duty solicitation. Because these
9 funds have to be encumbered here at the end of June. So
10 that's what we're seeking here.

11 We issued a Public Notice entitled "Third Revised
12 Notice of Proposed Award for Grant Solicitation PON-10-603
13 on April 27th, 2012. And the modifications allowed us to
14 completely fund two projects as well as partially fund
15 another project in that solicitation. They had met the
16 technical scores, but we didn't have sufficient funding at
17 that time. We've got some great projects in the state
18 that we would like to fund with this reallocation.

19 So simply it's a notification of the Legislature
20 of this proposed change in the plan. But I wanted to at
21 least bring it up here, because it was related to
22 demonstration.

23 --o0o--

24 DEPUTY DIRECTOR PEREZ: So on that, we'll move
25 onto the next slide, when is emerging opportunities.

1 Now, this category has always been a challenge
2 for us. One of the things that we talked about with our
3 Advisory Group is how do you develop a unified or uniform
4 criteria system for comparing and evaluating a diverse
5 array of opportunities that might come our way. And
6 through the Advisory Committee as well as public meetings,
7 we can arrive at a suggested amount.

8 But we do recognize the importance of being able
9 to compete and go after federal funding opportunities.
10 And what we are proposing here is \$5 million that we would
11 set aside for some of these unanticipated opportunities
12 that might not fall neatly into the other categories in
13 this plan.

14 And we're beginning to identify several of those
15 exciting opportunities for federal cost sharing, which are
16 described in the Investment Plan. I won't go into great
17 depth there. But we have the Joint Center for Artificial
18 Photosynthesis that received a federal award for \$120
19 million. We'll be providing support on that.

20 Batteries and energy storage innovation hub, this
21 is another project where we're competing with other states
22 to create a hub here in California. And if successful, we
23 can bring in another 120 million dollars in federal
24 funding. And then the U.S. Air Force Base vehicle
25 electrification efforts, not only in Los Angeles, but if

1 we can demonstrate success there, hopefully we can expand
2 it to remainder military bases in California. So those
3 are all exciting opportunities. And as a result, increase
4 the allocation in that category to better position
5 California in terms of competing for some of this money.

6 --o0o--

7 DEPUTY DIRECTOR PEREZ: Next slide, manufacturing
8 and workforce development. We've committed and invested
9 roughly \$26 million in this category. Opportunities for
10 unifying economic development with greener transportation
11 options. Two projects awarded underway to date. You've
12 heard many of these companies, Bolder Electric, Electric
13 Vehicle International, Quantum, all major recipients that
14 are moving forward and building manufacturing facilities
15 in California and providing much needed jobs for this
16 state.

17 So significantly oversubscribed based on a recent
18 solicitation and \$53 million requested with 130 million in
19 match funds. The proposals have a broad range of purposes
20 for manufacturing, retooling of existing lines, and
21 capacity expansion at facilities throughout California.

22 Of course, one of the things that we need to
23 ensure that we have the people to do this work is to have
24 a skilled workforce. So we made some major commitments
25 here. We did not increase the funding here at the request

1 of our grant recipients, Employment Development Department
2 and Employment Training Panel and the Community colleges.
3 So we have two million there to support training needs,
4 half million to support workforce needs assessment, and
5 expand career pathways.

6 And I also want to underscore the importance that
7 we are working closely with these agencies to ensure the
8 training occurs throughout California and especially in
9 regions where we have high unemployment.

10 And also like to say in addition, we will also
11 explore how we can better use these training opportunities
12 to capture the needs of our current and returning veterans
13 as we craft future solicitations and training agreements,
14 because it's really important as we have many of veterans
15 returning from overseas that they be offered opportunities
16 to move into these high tech sectors.

17 --o0o--

18 DEPUTY DIRECTOR PEREZ: In terms of market and
19 program development, we're proposing \$3 million for
20 regional alternative fuel readiness and planning centers.
21 We listened over the last two investment cycles. A lot of
22 interest and positive reception to electric vehicle
23 regional readiness funding and expansion to other
24 alternative fuels, including natural gas and hydrogen.

25 We also are proposing three million for

1 --o0o--

2 DEPUTY DIRECTOR PEREZ: -- in terms of the future
3 steps, funding, implementation, we are completing some of
4 the currently scheduled solicitations and grant
5 agreements. We have literally over a hundred of those
6 right now in the pipeline. We're trying our best to
7 backfill existing solicitations using what hopefully will
8 be awarded today and issued new solicitations as
9 appropriate.

10 With respect to the future, looking forward with
11 the next Investment Plan for 2013-2014, the first draft
12 will be available for your viewing in 2013. And we will
13 deliver a final report to the Governor and Legislature in
14 May of 2013.

15 At this time, I'd like to thank Charles Smith,
16 our primary author, for this report, as well as Jim
17 McKinney, and all of the valued staff within my Fuels and
18 Transportation Division that playing a major role in
19 putting this report together and incorporating significant
20 public comments that we received on this report.

21 If I could ask Charles to go to the next slide,
22 I'll leave that funding allocation table up there because
23 that will probably be the subject of discussion and
24 questions.

25 With that, thank you for your patience for this

1 long presentation. And we'd be happy to entertain any
2 questions you have.

3 COMMISSIONER PETERMAN: Thank you, Pat.

4 As lead Commissioner on transportation, I
5 appreciate all the work that you and staff and our
6 stakeholder group have done on this plan.

7 I'll have a number of comments, but I also know
8 we have a number of public comments as well. So I'll
9 reserve my questions and comments until after that.

10 Fellow Commissioners?

11 COMMISSIONER DOUGLAS: I think I'm ready for
12 public comments as well. I had a chance to review the
13 report. I thought it looked very good. I understand
14 Pat's comment very well that, of course, you always wish
15 you had more money because there are always really good
16 ways to spend more money in this area. I'm interested in
17 public comments as well.

18 CHAIRPERSON WEISENMILLER: So am I.

19 You recall I attended both Advisory Committee
20 meetings with you, so I'm also familiar with these issues.

21 Again want to thank the staff and the Advisory
22 Committee in these areas and certainly you for your
23 leadership on it.

24 COMMISSIONER PETERMAN: And thank you.

25 And Chair, yes, I appreciate all the work you put

1 into this plan as well. With Commissioner Boyd's
2 retirement, who was a leader in the transportation work of
3 this Commission for a number of years, it's required
4 myself and yourself and all the Commissioners to step up
5 and pay attention to what is really a very valuable and
6 important program to the Energy Commission.

7 And just regarding the point that was made about
8 oversubscription, Pat, did you say how much in total we
9 received in funding proposals?

10 DEPUTY DIRECTOR PEREZ: The last count was -- I
11 think when you look at all the different solicitations, it
12 probably exceeds a billion dollars, I believe, if I look
13 at the last two years. It's pretty substantial. There
14 are a lot of good projects out there.

15 COMMISSIONER PETERMAN: Thank you.

16 CHAIRPERSON WEISENMILLER: Thank you.

17 So let's go through the public comment. We have
18 a number -- in the presentation, staff covered both Items
19 4 and 5. Actually, we're going to vote separately on
20 Items 4 and 5.

21 In terms of comments, almost all the comments are
22 on 4. There is only one on 5. So I'm going to
23 consolidate it into one set of comments on 4 and 5. And
24 again remind people that we have a three-minute limit on
25 this. So certainly aim for that time.

1 And I'll start out by calling Eric White of the
2 ARB. We worked very closely with the ARB on developing
3 those plans and their associated 118. So I suspect that
4 Eric may want to step back up for a few closing comments.
5 But this is your chance for the longer comments.

6 MR. WHITE: Thank you. Certainly appreciate the
7 opportunity to be here today.

8 Good morning, Commissioners and Chairman. It's a
9 pleasure to be here to offer our support for the proposed
10 2012-2013 CEC Investment Plan. The proposed investment
11 projects identified in the plan we believe are critical,
12 as Pat noted, towards achieving the State's air quality,
13 climate, and fuel diversity goals. We certainly
14 appreciate the opportunity to work with your staff and
15 with you all on the development of the plan to ensure that
16 the CEC's portion of AB 118 and ARB's portion of 118
17 compliment each other in achieving the State's overarching
18 common goals.

19 Really want to focus on just a couple of key
20 elements of the plan that are very important to ARB.
21 First being the continued investment in the light-duty --
22 the introduction of light-duty advanced technology
23 vehicles in the state, specifically the \$5 million for the
24 Clean Vehicle Rebate Project.

25 As we look at anticipated demand into the future,

1 what we see is that the resources that ARB is committing
2 to this project simply are not enough to meet consumer
3 demand. And so this augmentation of that program is going
4 to be critical to ensuring that consumers continue to have
5 access to rebates to support the purchase of these
6 advanced technology vehicles, which are very vitally
7 important for achieving our long-term climate and air
8 quality goals from the light-duty sector.

9 In support of that, continued investment in the
10 necessary infrastructure to support those vehicles that
11 are coming today and those vehicles that we anticipate
12 coming in the very near future for both electricity as
13 well as hydrogen are absolutely critical not only to send
14 the right message to consumers and auto makers that
15 California fully supports the development and deployment
16 of those vehicles in the state.

17 Building on that as well, it's important to
18 recognize the investment in medium and heavy-duty advanced
19 technology demonstrations. As we are seeing the successes
20 of these technologies and in light-duty sectors, we look
21 forward to what do we need to do for a transportation
22 sector as a whole, continued investment to take that
23 technology and move it into the light and medium and
24 heavy-duty sectors is going to be critical to achieving
25 all of our long-term goals. And to see that investment

1 there today I think is a good signal that the state is
2 committed to seeing the technology leap to these other
3 sectors as well.

4 And finally, I wanted to mention since we are
5 combining a couple of items, we do want to show -- express
6 our full support for Items 43 through 49 on the
7 Commission's agenda for some of the 118 projects that you
8 have and will be considering later today. We see those as
9 important projects. We're very supportive of those
10 projects and look forward to hopefully seeing those
11 approved for funding so that we can move forward.

12 But just really to wrap up, really do appreciate
13 the opportunity to be here today. Appreciate the
14 opportunity to work with the Commission, the
15 Commissioners, and their staff on the development of this
16 plan. And I think when the Air Resources Board considers
17 its portion of the AB 118 plan next month, I think it will
18 be very good complementary provisions -- elements to both
19 plans that really do show the State's strong support for
20 advanced technology vehicles, energy diversity, and
21 achieving our climate and air quality goals.

22 COMMISSIONER PETERMAN: Eric, thank you for your
23 comments.

24 Regarding complementary programs, could you speak
25 for a moment about the HVIP program? You mentioned CVRP

1 and what that is and how much funding currently ARB has
2 that and how it complements the medium and heavy-duty
3 demonstration work we're doing?

4 MR. WHITE: The HVIP program is a program we have
5 funded since the inception of AQIP at ARB to incentivize
6 the purchase of diesel hybrid vehicles, but also now
7 including electric vehicles and medium and heavy-duty
8 applications.

9 What we have seen is demand in that program has
10 not quite met what we had anticipated with some of the
11 funding that's been allocated by ARB to date. So we
12 expect that at the end of the fiscal year we're still have
13 about \$20 million or so available in that program for
14 hybrid electric, medium, heavy-duty trucks. We have taken
15 a long hard look at that and perhaps are going to be
16 proposing some changes to that program, which we think
17 will provide a greater incentive for fleets to look at
18 those technologies and go out and make the purchases to
19 deploy those technologies into their fleet. And I would
20 fully expect in our upcoming proposal we will be also
21 proposing to continue to add some additional funding to
22 that and what we hope will be a much greater interest by
23 fleets in that program moving forward.

24 So we think that we will have adequate funding
25 through the next fiscal year based on what we already have

1 on hand and what we will likely be augmenting that with
2 later.

3 COMMISSIONER PETERMAN: Thank you very much.

4 As you know, we have been supportive of that
5 program and particularly the availability of incentives
6 for full electric vehicles. Looking forward to continuing
7 to work with you.

8 MR. WHITE: And us with you. Thank you.

9 CHAIRPERSON WEISENMILLER: Thanks.

10 I'm going to sort of group the speakers by topic.
11 So the next speaker, Neil Koehler from Pacific Ethanol.

12 MR. KOEHLER: Thank you, Chairman. Thank you,
13 Commissioners.

14 My name is Neil Koehler, Chief Executive, Pacific
15 Ethanol.

16 I'm here today on behalf of a much larger
17 coalition, California Advanced Energy Coalition. We're a
18 coalition of existing ethanol producers, advanced energy
19 technology providers to our industry, building trade
20 unions and other supporters, including E2, who has been
21 working with us on bringing advanced ethanol and
22 low-carbon fuel to the state of California.

23 Our industry is providing very significant
24 benefits to the state. We are producing through three
25 operating plants, one plant we'd like to get in operation

1 as an industry here in California. Close to \$200 million
2 gallons of the lowest carbon ethanol produced in the
3 United States today. All these companies are also working
4 with technology providers, one of whom I'm sure you'll be
5 hearing from today, from Aemetis, to further improve our
6 technologies and our plants to reduce the carbon even
7 further.

8 Through direct and indirect means, we're
9 providing 2,000 jobs to the state of California and
10 providing direct benefits to all consumers. We have the
11 lowest cost transportation fuel available in the world as
12 ethanol, and that is providing a direct benefit to all
13 consumers in that every gallon of gasoline contains ten
14 percent ethanol today.

15 Huge market, 1.5 billion gallons. We have the
16 capacity to produce 200 million gallons of that. We have
17 the ability, and with the right signals from State
18 government, the opportunity to produce all of that ethanol
19 at the lowest carbon possible here in the state of
20 California.

21 We are arguably the best and most appropriate use
22 of AB 118 funds. We are providing these benefits today.
23 We're the only industry that is actually providing
24 commercial amounts of the lowest carbon fuel in the
25 transportation sector. And with the right support, we can

1 bring that even lower.

2 We were part of a program -- our part of a
3 program. The CPIP, California Ethanol Producer Incentive
4 Program, that was funded two years ago. And I believe in
5 2010 and '11 the program that resulted in two of the
6 plants in California that are now running that had been
7 shut down commencing operations. It was a five-year
8 program that we signed up with the State to provide
9 ongoing funds in times of difficult market environment to
10 provide some stability to this nascent industry here in
11 California competing with a much more established industry
12 in the Midwest. And most importantly, a very progressive
13 program that paid those funds back in times when margins
14 were good and also provided a contractual commitment on
15 our part to further lower what was already the lowest
16 carbon ethanol and make it even lower, ten percent minimum
17 reduction. All of our companies are working very closely
18 on that.

19 That program has not been funded since the first
20 year. It was partially funded the first year. We have
21 since then put on the record -- there has been legislators
22 that have weighed in in support of this program. There's
23 E2, other -- the trade unions, given all of the goals and
24 objectives that were laid out in Mr. Perez's slides in
25 terms of economic development, low carbon, energy

1 security, we're providing all of that. And we think that
2 this program as part of this Investment Plan should be
3 fully funded, and we would appreciate your support in
4 that.

5 I would also point out that the low-carbon fuel
6 standard is very integral because of some of the legal
7 challenges there. We have not received the kind of
8 premiums that we will in the future. We stand very much
9 behind that program and think it's a very integrated part
10 of everything that's happening and look forward to that,
11 higher level blends, which will also improve the economics
12 in that transition to these better technologies and to the
13 use of the lower carbon for the compliance on the fuel
14 standard and the higher level blends. This transition
15 period is critical to our industry to continue to operate
16 and provide the benefits that we are doing.

17 In closing, I would also point out that as it
18 relates to hydrogen, it's critical that we move in a
19 direction that is sustainable and renewable. And the
20 ethanol molecule has six hydrogen atoms, becomes a very
21 ideal source in the future for hydrogen. So the ethanol
22 is great. The transition fuel today blended at ten
23 percent is a replacement fuel in the future and can also
24 be a feedstock for hydrogen. Thank you.

25 COMMISSIONER PETERMAN: Thank you.

1 Before you go, can you be more specific? You
2 made a request for the Commission to fully fund the CPIP
3 program. What is the actual dollar amount you're
4 suggesting and over what time period?

5 MR. KOEHLER: Well, if we look at what fully
6 funding means -- and obviously, there are financial
7 constraints and the policy and politics that go into all
8 of that. But we certainly -- when we signed up back
9 two years ago, we were signing up for a program that was
10 developed as a five-year program with four years of
11 funding that was up to \$3 million per plant. There are
12 three operating plants today. One plant that shut down
13 that with this incentive program being re-initiated I'm
14 quite confident since this is ours it would provide the
15 seed capital to get those jobs and get that low carbon
16 back in the market.

17 So if you looked at the total of four plants in
18 California that qualify and it's \$3 million a year, that's
19 \$12 million a year. We missed in last year's plan --
20 there's unencumbered funds I believe. So we actually
21 think full funding means a retrospective funding for 2012
22 from funds that could either be borrowed from this year's
23 plan or last year's plan. And that we continue to provide
24 those funds in the future.

25 We have worked very closely with the Legislature,

1 which is why the Legislature is now very supportive of
2 this program, and you have letters to that effect, to work
3 out a position -- a compromise position with those that
4 wanted to make sure, as we've committed to do, that we're
5 transitioning to new technologies and feedstocks that the
6 corn ethanol component of that would sunset halfway
7 through 2013 and then subsequent funding under the program
8 would be made available for the cellulosic and other
9 feedstocks we're using to produce ethanol.

10 COMMISSIONER PETERMAN: Thank you. I appreciate
11 you adding that information for the record since we were
12 not able to hear it at our last advisory meeting.

13 CHAIRPERSON WEISENMILLER: Thank you. Remind
14 anyone three minutes.

15 Andy Foster.

16 MR. FOSTER: Thank you, Mr. Chairman and
17 Commissioners.

18 My name is Andy Foster, and I'm the President and
19 Chief Operating Officer of Aemetis Corporation based in
20 Cupertino. And we have a 55 million gallon per year
21 biorefinery located in California, just south here of
22 Sacramento.

23 I'd like to echo a lot of what Neil said in terms
24 of our encouragement for your support of -- ongoing
25 support of the CPIP program. There are a lot of different

1 ways to get to the low carbon fuel standard that was
2 outlined in AB 118. Ethanol is a big part of that plan.
3 Renewable fuels is a big part of that plan. And as Neil
4 said, we are the only industry that are commercially
5 actively participating in meeting those goals. And we are
6 not receiving the low carbon credit that we had hoped to
7 for the sale of the lowest carbon ethanol produced in the
8 United States, but we're doing it anyway.

9 We know that ARB will prevail in the lawsuit that
10 has been brought by some of the Midwest producers. But we
11 think that -- Neil talked about the fact that we had over
12 2,000 jobs -- direct and indirect jobs that are critical
13 right now in the state of California. As Pat pointed out
14 in his slide about the goals of the program, the CPIP
15 program certainly meets and exceeds those goals. All of
16 our plants are located in counties with unemployment rates
17 that exceed 15 percent. It's not insignificant over 2,000
18 direct and indirect jobs are involved in the operation of
19 these plants in addition to the potential starting of
20 another plant.

21 One of the things I think that I would like to
22 focus on is our transition to advanced technologies. It
23 is true that today we are using corn as our feedstock.
24 All of the plants -- I can speak for my plant only. I
25 think I reflect the views of others -- have made

1 significant investments in moving toward the next
2 generation using agricultural residue that's found readily
3 here in California. That's certainly one of the goals of
4 this program. It's one of the requirements of this
5 program. And we are moving aggressively in that
6 direction.

7 We have spent -- just implemented corn oil
8 separation, which has produced in other byproduct at our
9 plant. Spent a million dollars on that. And we are
10 working very actively with the Edeniq Corporation and
11 other California-based technology corporations to replace
12 over 20 percent of our corning pits with agricultural
13 residue. That is something that is on the near horizon.
14 We are implementing those programs this year.

15 And our company, as well as the other companies
16 involved in this advanced biofuels industry here in
17 California, are making those as private investments. We
18 believe that the California ethanol plants, biorefineries
19 that exist today provide the state of California with the
20 most unique opportunity that really exists pretty much
21 anywhere in America. You have a number of technology
22 companies, existing producers. We have over \$500 billion
23 worth of investment that has currently been made --
24 private investment that has been made in these plants.
25 And we're all looking at them as the logical platform for

1 the adoption of these new technologies in advancing the
2 goals of AB 118.

3 So we thank you, all of you Commissioners, for
4 your willingness to work with us and the dialogue and
5 certainly with the staff. And we strongly encourage your
6 support for continuing this program.

7 COMMISSIONER PETERMAN: Thank you.

8 Couple questions. So how many direct jobs do you
9 have at your plant?

10 MR. FOSTER: We have 50 full-time employees at
11 our plant. And we have an in-plant study that
12 conservatively puts the indirect number of jobs at about
13 720. I would say that's typical per plant. I think --

14 COMMISSIONER PETERMAN: And regarding the
15 transition to advanced biofuels, so currently you're not
16 producing those biofuels, but you're transitioning toward,
17 is what your statement is. So when do you expect to be
18 producing these fuels and at what quantities?

19 MR. FOSTER: Our goal is to replace between 20
20 and 25 percent of our current feedstock inputs with
21 cellulosic and non-food inputs. That's the stated goal of
22 our program. I'll be back here for your June meeting
23 because we will be finalizing the agreement for a
24 pre-commercial facility that the Commission has approved a
25 grant we received for a pre-commercial cellulosic ethanol

1 demonstration at our plant in Keys. We are, as I said,
2 actively starting this this year. That is a one million
3 gallon per year commercial demonstration that we'll be
4 building at our facility in Keys.

5 And in addition to that, we're also spending our
6 private resources on technology from Edeniq as well as
7 other California-based technologies. So we're doing these
8 things in parallel. We're adopting multiple technologies
9 to accelerate the process of this adoption.

10 COMMISSIONER PETERMAN: When you have anticipate
11 having 20-25 percent of your feedstock?

12 MR. FOSTER: I would say it's realistic that over
13 the next two years we can begin that transition in what I
14 would call meaningful commercial scale.

15 COMMISSIONER PETERMAN: Thank you.

16 CHAIRPERSON WEISENMILLER: Thank you.

17 Kyle Jenke.

18 MR. JENKE: Hi everyone. Thanks for giving me
19 the opportunity to speak.

20 My name is Kyle Jenke with a company called
21 Edeniq based in Visalia, California. And we're a
22 cellulosic ethanol technology provider. We started up
23 about five years ago. We're funded by a lot of the guys
24 up on Sand Hill Road, Bill Byers, Drake Fischer, the
25 Wesley Group. And our technology effectively enables --

1 COMMISSIONER PETERMAN: Is your mike on?

2 MR. JENKE: Yeah. I'm very tall. Can you hear
3 me now?

4 COMMISSIONER PETERMAN: Yeah, I can hear better.

5 MR. JENKE: Do I get the clock restarted? Just
6 kidding.

7 COMMISSIONER PETERMAN: We'll give you a little
8 leeway.

9 MR. JENKE: We have technology that can
10 effectively help transition existing ethanol plants to
11 cellulosic ethanol.

12 We're also part of the California Advanced Energy
13 Coalition, along with Neil and Andy's companies. And we
14 see the existing steel in the ground as a great way and
15 most effective way to implement our technology.

16 The reason I'm here today is to really advocate,
17 you know, the full funding of the CPIP program. This
18 money would allow them to implement our technology to
19 install our technology. And we view that's the most
20 near-term, most effective way to implement the cellulosic
21 ethanol in the state of California.

22 We also look forward to having a consistency to
23 this commitment, something that as we can install our
24 technology, it's something we can count on. Our investors
25 look for consistency in funding from the government or

1 just clear path on where that's going to be going.

2 So I thank you for the consideration, and I'm
3 happy to answer any questions you guys have.

4 COMMISSIONER PETERMAN: Thank you.

5 And this may be discussed later on, but I believe
6 we provided -- AB 118 has provided a 1.9 grant at least to
7 one of facilities to do cellulosic ethanol as well as a
8 couple million dollar grant to another one as well. So we
9 are supportive of investing in that cellulosic space. And
10 thank you for the work you're doing in it as well.

11 MR. JENKE: We actually have a notice of proposal
12 for award for a \$3.9 million grant. It's actually a
13 retrofitted biorefinery that we own in Visalia,
14 California, and that will run a full cellulosic package
15 with no corn ethanol. So we're excited to work with you
16 guys on that.

17 COMMISSIONER PETERMAN: Thank you.

18 MR. JENKE: Thank you.

19 CHAIRPERSON WEISENMILLER: We're going to take a
20 short break, five minutes.

21 (Whereupon a recess was taken.)

22 CHAIRPERSON WEISENMILLER: We had our five-minute
23 stretch.

24 So Matt Miyasato from South Coast. And if you
25 can talk about four and five both.

1 MR. MIYASATO: I appreciate that, thank you.

2 So good morning, Chairman Weisenmiller --

3 COMMISSIONER PETERMAN: Just wait like 30
4 seconds. I want everyone to hear your comments.

5 MR. MIYASATO: I thought you were adding another
6 minute to my time.

7 COMMISSIONER PETERMAN: As you were covering two
8 topics, I would say in theory you have a bit more time.
9 But the clock is limited to three. I can't do anything
10 about the clock. All right. Go ahead.

11 MR. MIYASATO: Good morning, Chairman
12 Weisenmiller and Commissioners Douglas and Peterman. Good
13 to be back here.

14 For the record, I'm Matt Miyasato. I'm Assistant
15 Deputy for Technology Advancement at the South Coast Air
16 Quality Management District. And certainly appreciate the
17 opportunity to testify before you this morning.

18 Because you guys are combining 4 and 5, I'm
19 conflicted. We are offering our strong support for Item
20 4, which is the adoption of the Investment Plan. And on
21 number 5, we're going to take an oppose position. I'll
22 explain that in just a moment.

23 For number 4, we're very pleased to see the
24 Commission adopted -- or changed the plan to incorporate
25 the stakeholder comments which were provided at the April

1 19th meeting. In particular, as Eric White had noted in
2 the meeting of the heavy-duty advanced technology category
3 you will bump that up from four million to six million, we
4 still think that's a bit small. We would prefer to see
5 that in the ten million dollar range.

6 As Pat had mentioned, everyone is asking for more
7 in the trough, as it were. But I believe we represent a
8 different animal as it were because we are also providing
9 co-funding. We hope you would take the opportunity to
10 present something to increase that category, that you do
11 if there are head room and other procedural issues that
12 would allow you to bump that category you.

13 In particular, we're pleased to see the
14 Commission maintained in the report the acknowledgement of
15 goods movement as a severe challenge in both the South
16 Coast AQMG region as well as the San Joaquin Valley. As
17 you probably know that that is one of the major issues
18 we're grappling with in terms of trying to meet our
19 attainment date.

20 And your staff report quotes that you will commit
21 these funds "with a special focus on high value
22 applications." We hope that translates into, indeed,
23 targeting and implementing zero emissions goods movement
24 technologies through your plan.

25 And that leads me to Agenda Item Number 5, which

1 is really to fund projects through your solicitation on
2 the medium and heavy-duty advanced category that Pat
3 described. And regrettably, I'm opposing this for the
4 South Coast basin because of an issue that was outlined
5 that we presented in April 19th at the workshop. It was
6 also outlined in a subsequent letter that our Chairman,
7 Dr. William Burg, sent to the Commission.

8 And I also would like to introduce a letter that
9 is provided by the State Legislature with ten signatures.
10 I'll hand this over to Rob, perhaps. That outlines the
11 concerns. And most notably, the issue really is that we
12 are very pleased when the program opportunity notice came
13 out where the Commission indicated that you were going to
14 give preference to goods movement technologies and
15 transit. And we note that out of the \$22 million or so in
16 the proposed award and the original award, only a small
17 fraction of those projects are actually involving goods
18 movement. And I believe zero dollars are dedicated to
19 zero emissions goods movement and technologies.

20 So we submit that this process somehow is
21 misaligned with your intent. And so we would urge the
22 Commission's delay in approving those awards. Go back to
23 those projects and identify how you can make those more
24 aligned with the intended scope of the solicitation, which
25 was to target goods movement technologies.

1 We would ask the Commission to delay. And we
2 would offer also our assistance. If we can help you
3 identify those projects, if we can help you administer
4 those projects, we would be happy to do so.

5 As noted, there is a limited amount of funding
6 associated with the medium and heavy-duty advanced
7 technology category. We are going to add \$5 million more,
8 but we again believe that the manner in which the
9 solicitation was put out and the proposed awards are
10 misaligned, so we ask you to reconsider those. Thank you.

11 COMMISSIONER PETERMAN: Thank you.

12 CHAIRPERSON WEISENMILLER: Thank you.

13 Next, Reed Addis of CALSTART.

14 MR. ADDIS: Thank you, Mr. Chair and members.

15 Reed Addis on behalf of CALSTART. Here probably
16 to have some comments that bridge both Items 4 and 5. And
17 you will hear a little bit of a flavor of the last
18 individual's comments.

19 One, we are, in fact, very supportive of the new
20 Investment Plan, but here are some caveats. And in
21 particular, CALSTART today, our comments are going to be
22 focused on the medium- and heavy-duty sector. Medium- and
23 heavy-duty vehicles represent probably the greatest
24 challenge but also the greatest opportunity to the State
25 if we can crack some of the technologies around these

1 vehicles and find a way to test and deploy them throughout
2 the state. If we're successful doing that, they represent
3 some of the greatest greenhouse gas emission reductions
4 and also petroleum reductions available to the state. If
5 we do that right, we can deploy them in those areas that
6 critically need work done in medium- and heavy-duty
7 sectors, especially those in the South Coast, San Joaquin,
8 and the Bay Area.

9 Because to do that we need State support, AB 118
10 represents a critical, if not maybe the only, program that
11 can help drive changes in the area and sector. Therefore,
12 we've been very focused with a number of Coalition members
13 on the medium- and heavy-duty sector on the Investment
14 Plan. We've been hopeful that the CEC would take action
15 to make a major and sustained investment in this area.
16 Therefore, we have some concerns with the original draft
17 Investment Plan that signaled a rather small investment in
18 this area. And as the Air Quality Management District
19 just mentioned, we had some concerns about how the CEC
20 funded the current POE on this issue. You shorted a
21 number of projects that were critical to the program.
22 Combine that with the lower amount in the existing
23 Investment Plan, we had concerns.

24 What I'd like to -- and at the time, we issued a
25 letter both to the Commission and to the Advisory Board

1 trying to represent our interest in making sure that
2 you're closer to the 2010 to \$20 million investment
3 standard in this sector for a period of years.

4 Having said that, our understanding of some of
5 the changes you're suggesting and the new number in this
6 Investment Plan, we do see that as a strong movement on
7 your part and really do appreciate that.

8 What you will hear us say, we'd like you to do
9 more. We think you should fully fund the existing PON and
10 find a way to increase the 6 million.

11 Again, clearly want to suggest very strong
12 movement on your part. Really appreciate working with the
13 Commission on that. And we thank you for that effort and
14 again hope that you can do more in the years to come.
15 Thank you very much.

16 COMMISSIONER PETERMAN: Do you have any comments
17 regarding the opposition that South Coast has raised to
18 backfilling the existing PON? I'm asking CALSTART as the
19 receipt of the majority of the funds in that category.

20 MR. ADDIS: I think I'll be careful in trying to
21 answer that.

22 Our comments today were not necessarily
23 coordinated, but we did work with South Coast on the PON
24 proposal.

25 I think the issue here is that by not funding all

1 of the projects within the PON, you create a dilemma for
2 those various projects within the PON to look at one
3 another and certainly ask how do they deal with one
4 another and do they compete against each other.

5 We do clearly see the value of the projects that
6 South Coast is raising as critical in the L.A. basin that
7 are critical. We're very supportive of that. I think I
8 would hesitate to provide you comments about the various
9 projects visive one another within the PON.

10 COMMISSIONER PETERMAN: Fair enough. Thank you
11 very much for your comments.

12 MR. ADDIS: Thank you.

13 CHAIRPERSON WEISENMILLER: Steven Francis.

14 MR. FRANCIS: Good morning. My name is Stephen
15 Francis. I'm here on behalf of Assemblymember Perea. And
16 I'd like to read excerpts from a letter that
17 Assemblymember Perea sent to the Energy Commission.

18 "Dear Commissioners, your support is urgently
19 needed for an innovative Central Valley
20 Transportation Center, or CVTC. The state-of-art
21 transportation and training facilitate will be a
22 game-changer for the region with the nation's
23 worst air quality, highest poverty rates, and an
24 unemployment rate of 32.7 percent.

25 "This project provides us with the ability to

1 operate our public transit fleets in a cost
2 effective and efficient manner, while reducing
3 our dependence on foreign oil and significantly
4 reducing air pollution.

5 "Local partner and school districts will pay
6 from \$4.50 a gallon for diesel to less than \$2
7 for a compressed natural gas.

8 "The facility will promote the use of
9 alternative fuels by making them readily
10 available in our part of the valley. The
11 strategic location of the proposed CVTC is
12 vitally important to the state, as it will
13 provide access to these fuels statewide, instead
14 of simply large metropolitan areas and in the
15 process demonstrate the viability of such a
16 cost-effective transformation.

17 "Taxpayers will see our immediate savings due to
18 the cost difference between compressed natural
19 gas and diesel. Centers such as the CVTC can
20 show communities that green technologies work and
21 are cost effective. This project would be a
22 pilot demonstration project for government
23 agencies, as it will serve as the best practice
24 model for uniting regional partners such as
25 cities, schools, colleges, agricultural industry,

1 the general public, and more.

2 "The CVTC project would likely follow under
3 the category of Centers for Alternative Fuels and
4 Advanced Fuel Vehicle Technology.

5 "I encourage the CEC commissioners and the
6 CEC Advisory Board to consider utilizing the
7 additional \$17 million that may be allocated
8 toward this category to fund the CVTC. All
9 environmental reviews have been completed. Plans
10 have been drawn up, and construction is ready to
11 begin. This means the pilot demonstration
12 project will immediately put AB 118 funds to use
13 on a project directly benefitting tax-paying
14 citizens and proving the CEC's value and
15 potential in those hard economic times.

16 "Thank you for taking the time to consider my
17 request.

18 "Sincerely, Henry Perea, Assemblymember 31st
19 District."

20 COMMISSIONER PETERMAN: Thank you very much. And
21 please extend our thanks to Assemblymember Perea for his
22 comments and interest in this area.

23 MR. FRANCIS: Thank you very much.

24 CHAIRPERSON WEISENMILLER: Bonnie Homes-Gen.

25 MS. HOLMES-GEN: Good morning, Commissioners.

1 Bonnie Holmes-Gen with the American Lung
2 Association in California.

3 I continue to appreciate the opportunity to be a
4 part of the Advisory Committee and to work on this
5 important plan. And we do continue to support this
6 process. It's critically important to transitioning to
7 clean low-carbon fuels and improving air quality in
8 California.

9 And I also want to speak today on behalf of some
10 of the fellow members, who I don't believe are here from
11 NRDC, Energy Independence Now and from the Clean Pavely
12 Campaign, the Assembly and members of the Advisory Board.

13 And first of all, I want to say we generally
14 support the Investment Plan. And particularly want to
15 mention our support for key areas, including funding the
16 11 million in funding for additional hydrogen
17 infrastructure. We definitely support that. We support
18 the funding for electric vehicle infrastructure and
19 deployment of electric vehicles and appreciate the funding
20 and the important opportunity there.

21 As has been mentioned recently by the last few
22 speakers, we are supportive of the increase in funding for
23 medium- and heavy-duty advanced technology demonstration
24 projects and this goal of moving quickly as possible to
25 zero emission goods movement, especially in the South

1 Coast air basin in the San Joaquin Valley. So critically
2 important. We see this area as hopefully an area that can
3 grow in the next Investment Plan. We need to support
4 these efforts. Tremendous benefit, not just for our GHG
5 and petroleum reduction efforts, but for improving public
6 health and for people that live near goods movement
7 centers.

8 And I want to mention a couple of key issues, or
9 overarching issues. One is -- and this is something that
10 we brought up in the Advisory Committee meetings, of
11 course, that especially right now is a key critical
12 opportunity to invest in transitioning our light-duty
13 fleet to electric plug-in technology.

14 And as you know, CARB is projecting about 30,000
15 electric vehicles in 2013 that would be offered for sale.
16 And the incentives that we have available through the
17 combination of the ARB and the CEC programs would fund
18 maybe a third of those vehicles that would be coming out
19 next year. We are concerned. I think there is a critical
20 opportunity, critical window of time. That's what this
21 program is about. It's taking advantage of these emerging
22 opportunities. And here's one here.

23 We're concerned there may not be enough funding
24 in this area. And we'd like to see a goal of increasing
25 those funds. And we recommend to take another look at

1 this plan and especially in the plan coming up to see
2 where we can increase the funding to help support this ARB
3 program.

4 I'd be happy to chat with you more about that.
5 Again, it's not just about helping consumers purchase the
6 vehicles, but it's about getting these vehicles out there
7 on the roads so people can see them, experience them, and
8 realize how important, cost effective, and valuable these
9 vehicles are to our air quality and our environment.

10 A second key issue as we go forward, we believe
11 it's really important for CEC to develop the metrics to
12 better clarify and communicate where we need to be in
13 terms of the numbers of vehicles and the amounts of fuels
14 for each of those categories that we're considering by
15 2020, by 2030 so we can see that we are on track to reach
16 our 2050 goals.

17 We brought up this issue I know at several
18 meetings, and I know there's been kind of a rushed
19 process, shall we say, over the past few years trying to
20 get through these initial investment plans. But we think
21 now is a tremendous opportunity to take a look at more
22 time and go back and talk about how we're measuring
23 progress so we can better evaluate the priorities we're
24 setting in this Investment Plan.

25 CHAIRPERSON WEISENMILLER: Could you wrap it up?

1 MS. HOLMES-GEN: I know.

2 Just quick mention that ARB is developing this
3 vision document over the next few months. I think that
4 will be a tremendous help to the Commission. And the
5 Commission and ARB can work the together to bring that
6 information into the process.

7 Thank you very much. Appreciate the opportunity
8 to comment.

9 CHAIRPERSON WEISENMILLER: Thank you.

10 Peter Cooper, Better Place.

11 Mr. COOPER: Hello and good morning.

12 My name is Pete Cooper, the General Manager for
13 Better Place in California. Thanks for the opportunity to
14 address the Commission.

15 Focus my comments on updates to the emerging
16 opportunities category as reflected in the April 25th Lead
17 Commission report.

18 Formally stated in our April 24th public
19 comments, we strongly support funding for innovative
20 technologies. Today, we recognize the Commission's
21 proposed allocation increase from 3.5 to 5 million in the
22 emerging opportunities category and potential for
23 including the 9.7 in the unallocated funds.

24 We feel strongly that projects in the category
25 should be shelf ready, have proof points in other markets,

1 have government cost share, federal, regional and
2 otherwise, be reputable, receiver ready, and offer
3 innovative EV solutions will enable the State to meet its
4 ambitious climate targets. We have cost competitive no
5 comp buy ZEV offering to meet the Governor's targets as
6 well.

7 Our Bay Area Taxi Program demonstrates a complete
8 solution that is a good investment for California. Has
9 the potential for creation of 40 direct jobs next year and
10 600 in 2016 for a commercial offering and 2,000 in the
11 year 2020 direct jobs.

12 Our core offering battery switch is included in
13 the ANSI standards EV roadmap, reinforcing the viability
14 of this technology and further improving the outcome of an
15 investment in this innovative complete EV mobility
16 solution.

17 It will leverage six-and-a-half million dollars
18 in federal and regional government grants and it will
19 leverage 24-and-a-half million in our own private
20 investments.

21 The Bay Area program has the potential for direct
22 and indirect greenhouse gas emissions over its lifetime on
23 the order of 700,000 tons and offers a seed for our
24 commercially viable solution.

25 So in closing, I'd like to say we support the

1 recommendation to allocate the five, strongly encourage an
2 increase in the emerging opportunities category, and again
3 thank you for the time to address the Commission.

4 CHAIRPERSON WEISENMILLER: Thank you.

5 Mel Assagai.

6 MR. ASSAGAI: Good morning, Commissioners.

7 My name is Mel Assagai. We want to -- I'm here
8 on behalf of Navistar and the Electrification Leadership
9 Council.

10 Let me speak for Navistar first. We are very,
11 very impressed with the Investment Plan, particularly
12 impressed with the successive buy-down incentive program.
13 We are strongly supportive of that and for the overall
14 plan itself.

15 On behalf of the Electrification Leadership
16 Council, we also think that plan is an excellent plan. We
17 really want to thank the staff for the ability to talk and
18 work with them in developing our plan.

19 Of course, we think it's important to deploy
20 commercial electric vehicles as we go forward with this EV
21 deployment plan. We have appreciated the time and
22 attention that the staff has given this issue.

23 We also want to support the South Coast interest
24 in having more money available for the deployment of EVs
25 in the South Coast. We think it's a critical place to

1 deploy those vehicles and deploy these resources. And
2 they're playing a really key role in making this happen.

3 In the overall, want to thank you all for the
4 hard work of the staff and the Commission. And thank you
5 all very much.

6 CHAIRPERSON WEISENMILLER: Thank you.

7 Tim Carmichael.

8 MR. CARMICHAEL: Thank you, Commissioners.

9 Tim Carmichael with the California Natural Gas
10 Vehicle Coalition. I'm also a member of the Advisory
11 Committee for the AB 118.

12 I have a few comments, wearing my Advisory
13 Committee hat and a couple on behalf of my organization,
14 if it's okay.

15 First of all, thank you to the staff and the
16 Commissioners for all of the hard work on this. I've been
17 involved since the legislation was being drafted for this
18 program, and there are very few easy decisions as this
19 program has progressed.

20 I can say with confidence and conviction this
21 plan has improved every iteration. I think that's
22 something to be proud of and a lot of hard work has gone
23 into that by a lot of people.

24 First, I want to say on the lead Commissioner
25 draft, staff draft, I think all of the changes that were

1 made make sense to me. And I see that as an improvement
2 over the staff last draft.

3 Second, I want to reiterate a point that Bonnie
4 Holmes-Gen made about the importance of metrics. And a
5 number of us on the Advisory Committee have been talking
6 about this. Will Coleman was one of the most vocal on
7 this point a couple years back. It is impossible for you
8 to extricate yourself from your political environment in
9 which this agency operates. But the more that you can
10 develop reliable metrics for evaluating proposals that
11 come before you, for evaluating the priorities for the
12 funding going forward, the more insulated you're going to
13 be from the political ebb and flow, which happens in this
14 town and in this state.

15 So there are a lot of Advisory Committee members
16 that work a lot in the Legislature and outside of the
17 Legislature. And we're all encouraging you and the staff
18 to do more in developing these metrics.

19 The assessment of the benefits to the plan that
20 was released in December is an important step in that
21 direction, taking a critical look at what's working and
22 what isn't, and where are we getting the benefits we
23 anticipated and where are we falling short.

24 But this also leads me to highlight one of the
25 red flags in the current plan. And the issue is ethanol.

1 If you take an objective look at this issue, the fact is
2 ethanol is going to be the largest alternative fuel used
3 in California for the foreseeable future. And it may
4 actually increase as a percentage. It is also true that
5 it's a significant part of the LCFS strategy.

6 It's also true that the plants operating here in
7 California are producing the lowest carbon ethanol in the
8 United States. All of those combined on their own should
9 be enough for this agency to be saying we need to be
10 funding this or we need to be working to try to calm the
11 politics around this so we can fund in a more thoughtful
12 way if the politics aren't currently allowing that.

13 But then on top of those three points, the fact
14 is this agency negotiated a very good agreement a couple
15 years ago that required a significant cost match from the
16 industry that required a clear transition strategy for not
17 only a single company, but for every facility that was
18 going to get funded to the cellulosic approaches. That's
19 exactly what we need to do with ethanol.

20 So to me, I take a step back as an advisory
21 member, and I say this is one of the things that we're
22 dropping the ball on in the current plan and in our
23 current assessment of the options to fund and something
24 that we need to continue to take a look at. And I'm not
25 saying it's going to be easy, but it's something we need

1 to do as an effort.

2 Quickly on the CNGVC, two comments. The Natural
3 Gas Vehicle Coalition is very appreciative of the agency's
4 continued support for natural gas vehicles for bio methane
5 development for refueling infrastructure. My member
6 companies obviously believe this is a key piece of the
7 strategy to clean fuels going forward for our state and
8 for the world.

9 And then secondly, I'll just say that the only
10 issue that we spoke up on that hasn't been addressed in
11 this revision and frankly wasn't addressed in the last
12 plan is this idea of even if you prioritize upstream waste
13 for biomethane projects, don't close the door on a good
14 landfill project to get funding. We continue to believe
15 that that's a good idea. And keep the option open to fund
16 the good landfill project if it comes.

17 We need to do some work on communication maybe.
18 But our understanding is that everybody seems to be okay
19 with that. And if that's not the case, we need to do some
20 more communicating to find out where people are
21 disagreeing with that concept.

22 Thank you very much for the extra time.
23 Appreciate it.

24 CHAIRPERSON WEISENMILLER: Chuck White.

25 MR. WHITE: Thank you, Mr. Chairman and

1 Commissioners.

2 Chuck White with Waste Management.

3 Waste Management has about 1400 heavy-duty
4 natural gas vehicles operating in California. We're also
5 producing 13,000 gallons per day of Extremely low carbon
6 renewable natural gas from landfill gas at our facility in
7 Livermore, California, and are hoping to build a second
8 plant in Southern California using AB 118 funds from a
9 prior offering.

10 I'm here speaking on part of a coalition that
11 involves the National Gas Vehicle Coalition that Tim just
12 spoke, and Environ Strategy Consultants, Rural County
13 Environmental Services Authority, Republic Services, Waste
14 Connections, and Waste Management. And we're only
15 commenting on one sentence in the plan, and that sentence
16 is on page 19 that states, "biomethane production projects
17 must utilize pre-landfill waste-based biomass sources."
18 That is, landfill gas will no longer be eligible as a
19 source of biomethane if we are reading this plan.

20 And that raises a couple of problems. Number
21 one, the current primary use of landfill gas beneficially
22 is to use internal combustion engines to produce
23 electricity. It's a relatively inefficient and relatively
24 non-clean process. We would very much like to get
25 landfill gas into pipelines in California and wield it to

1 use as a transportation fuel.

2 And that brings up a second issue, is you can't
3 put landfill gas into pipelines in California. We would
4 like to change that. AB 1900 by Assemblyman Gatto is
5 hopefully going to change that. But we would certainly
6 like to be able to have access, if it's appropriate and if
7 it's cost competitive and it reduces pollution in
8 California, to be able to get treated landfill gas into
9 utility pipelines.

10 So instead of that one sentence, our Coalition
11 has suggested biomethane projects are encouraged to
12 utilize pre-landfill waste-based biomass sources as the
13 highest priority. This is consistent with the State
14 policy to maximize diversion of waste to landfills.
15 However, landfill waste-based sources of biomethane may be
16 considered if they demonstrate both: One, cost
17 effectiveness as compared to other projects; and two, a
18 significant reduction in criteria pollutant or GHG
19 emissions as compared to the current method of managing
20 landfill derived biogas. We think this would still keep a
21 high priority on pre-landfill anaerobic digestion type
22 projects, but allow a landfill gas project that reduces
23 pollution and is cost effective to be also considered for
24 funding on this project.

25 We have touched bases with the various air

1 districts. We think they're in support of this,
2 particularly the South Coast and the Bay Area. We touched
3 bases with California Recycle. They are willing to
4 express some flexibility on this pre-landfill thing,
5 according to my conversations with them. We don't know
6 anybody that would be opposed to providing a little more
7 breadth and flexibility in the biomethane source of
8 biomass to produce methane. And not limit only to
9 pre-landfill sources, but allow post-landfill sources,
10 given the out-of-state problem that you're dealing with on
11 biomethane, and given the current use is not particularly
12 clean. Like to make a cleaner source/use of the current
13 resources in the state.

14 Thank you very much.

15 COMMISSIONER PETERMAN: This is Commissioner
16 Peterman here.

17 Let me offer a comment on the plan's current
18 inclusion of only pre-landfill gas, because it's a very
19 specific topic here. I'll say that during the meeting and
20 in various discussions, we have had a mix of opinions
21 about whether to -- we should be allowing landfill gas
22 currently or promoting it as part of this solicitation.
23 And it's something on our radar. We happen to continue
24 discussing it. I think you raised some of the points that
25 some who are in favor of how we currently have it, because

1 we don't want to provide a disincentive for landfill
2 diversion and waste diversion.

3 MR. WHITE: We agree.

4 COMMISSIONER PETERMAN: I think you're supportive
5 of that point.

6 So it's a topic which I'm happy to continue to
7 consider going forward in future plans. But please know
8 it's something that we have considered and there is a mix
9 of opinion about whether appropriate to do or not.

10 MR. WHITE: And we would be most happy to engage
11 in further discussions on this. Hopefully, if not this
12 Investment Plan, future Investment Plans can provide more
13 latitude in this area. Thank you.

14 COMMISSIONER PETERMAN: Thank you.

15 CHAIRPERSON WEISENMILLER: Thank you.

16 Rebecca Breitenkamp.

17 MS. BREITENKAMP: Hello. I'm Rebecca
18 Breitenkamp, the President of Oberon Fuels. And Oberon
19 Fuels is a San Diego-based early stage company producing
20 Dimethyl ether. DME is a cleaner alternative to diesel.

21 So I'm here on behalf of Oberon to publicly
22 support the inclusion of DME in the current Investment
23 Plan. And thank you for that and allowing us to compete.

24 So DME is a -- can be produced from methane and
25 carbon dioxide. Used multiple different feedstocks and

1 burning very clean, low particulate matter, and low NOX.

2 So we appreciate the Commission's supporting that
3 and allowing us to compete.

4 Also as an update, I wanted to let you know we
5 began site prep on our first production facility last
6 week. We'll be producing fuel by the end of this year and
7 will be looking towards producing reductions from cow
8 manure by 2014.

9 So also wanted to acknowledge and thank the
10 Commission and their staff for working with the early
11 stations like ourselves, maintaining the vision of looking
12 at all renewable fuels, and keeping that monitoring and
13 learning about what we're doing in this innovative
14 solution. So thank you.

15 COMMISSIONER PETERMAN: Thank you.

16 DME has always been eligible for the 118 program,
17 but you're the first company to come forward with a
18 project in this area. Looking forward to seeing your
19 experience and learning more about this resource. Thank
20 you.

21 MS. BREITENKAMP: Thank you.

22 CHAIRPERSON WEISENMILLER: Thank you.

23 John Clements.

24 MR. CLEMENTS: I get to say good afternoon, Mr.
25 Chair and Commissioners.

1 John Clements, Director of Transportation, Kings
2 Canyon Unified.

3 Just want to say that we are in support of Item
4 Number 4 and the Investment Plan. And we appreciate that
5 there is the section in there that includes alternative
6 vehicles and transportation vehicle centers and fuels.

7 And making good use of the HVIP. For the
8 Commissioner that hasn't seen it before because, you know,
9 I've been here several times in the advisory groups. Here
10 is the first production model. All-electric lithium ion
11 schools bus coming to Kings Canyon Unified.

12 Thanks to HVIP dollars and AB 118 and working
13 collaboratively with our friends at ARB, we have started
14 production on the next two that will be here in Sacramento
15 hopefully June the 28th for the ARB Board meeting. So
16 thanks for the opportunity.

17 CHAIRPERSON WEISENMILLER: Thank you.

18 Steven Rapapa.

19 MR. RAPAPA: Thank you. Steve Rapapa from the
20 city of Reedley. We are partners with Kings Canyon
21 Unified School District as their home base is the city of
22 Reedley, and very supportive of the current 2012-2013
23 Investment Plan, especially again with the Centers for
24 Alternative Fuels and Advanced Vehicles.

25 You Commissioners, a couple of you, have attended

1 meetings with our Central Valley Transportation Center,
2 which is a regional hub that we are hoping to establish
3 that will give an opportunity to our region to understand
4 the use of alternative fuels. We currently have 25 of our
5 school buses are CNG vehicles. As John alluded to, we
6 have one existing electric bus and two more on the way.

7 We feel we're doing our part to help with the
8 greenhouse gas, issue as we have some of the worst quality
9 air in the nation. And we're looking at our Center to
10 also not just be that fueling station that can educate the
11 public about alternative fuels, but we also have an
12 educational portion that will be built in there that the
13 EPA is working to help us fund that we're hoping will turn
14 out up to 85 green technicians, as we will call them, per
15 year so that we can educate our young people in an area
16 that has an unemployment rate of just over 32 percent and
17 have them become a part of this new technology.

18 And we thank you all for your great time and your
19 great service. And the city of Reedley supports this
20 year's plan. Thank you.

21 CHAIRPERSON WEISENMILLER: Thank you.

22 Eric White, any last comments from the ARB?

23 MR. WHITE: Thank you again.

24 It's an bit of an honor to come up here a second
25 time after hearing all of the comments, which I know we

1 certainly appreciated, as did you, to hear the feedback
2 from the stakeholders about the various aspects of the
3 program. And certainly to hear, as we do, the unfortunate
4 inability for us to fund all of these good projects and to
5 provide enough money for all of these sectors that really
6 do need continued investment and additional investment
7 into the future.

8 One thing I did want to touch on is a comment
9 that Bonnie Holmes-Gen made about some of the visioning
10 work that's going on at the ARB right now. What that is
11 is ARB is in the process right now of trying to look into
12 the future about what changes, what transformations do we
13 need to look at in the transportation sector in particular
14 to achieve our long-term GHG and criteria pollutant
15 emission reduction needs for air quality and global
16 warming.

17 What we're finding is that we really do need to
18 move to a zero and near-zero type of transportation
19 infrastructure here in California, and in fact, the need
20 for that to begin that effort as exists today. We're
21 going to be on track to do that by 2050 and hit air
22 quality milestone years before then. We do need to be
23 investing today both in the light-duty and heavy-duty
24 sector so that the technologies that we need to deploy and
25 the time frames we need to deploy them are available. And

1 so it's through efforts of 118 in both on the public's
2 part through that program, the private investment that
3 these programs bring into the state that will put us on
4 the path to do that.

5 So as we share that, the results of that work at
6 our June hearing next month, Board meeting next month, I
7 think it will help inform and enlighten upcoming work that
8 we'll be doing collectively will you on future funding
9 plans and other alternative fuel strategies as well as the
10 next round of SIPS that ARB will begin working on in
11 conjunction with the local air districts, freight movement
12 plans into the future, and updates to our scoping plan.

13 CHAIRPERSON WEISENMILLER: Thank you.

14 I had just one follow-up question. Obviously,
15 the Air Board has a strong commitment on ZEV side. And
16 also we heard some discussion today of the low-carbon fuel
17 standards and the ethanol issue. I was wondering if the
18 ARB had any comments on that question.

19 MR. WHITE: I don't on the low-carbon fuel
20 standard and the ethanol issue. I would have to defer to
21 other staff at ARB to provide comments on that.

22 But on the ZEV side, certainly I think with the
23 adoption of the Advanced Clean Cars Program in January,
24 and the work that was done in support of that. Clearly,
25 transformation of the light-duty sector needs to occur and

1 needs to begin to occur today. And so we've been very
2 supportive both in our funding efforts as well as in
3 support of the efforts that the Commission is undergoing
4 to ensure that that transformation can begin successfully.

5 I think the efforts that we see today with the
6 proposal really do put us on a good start and put us down
7 a proper pathway to achieve those goals. The ZEV
8 regulation alone will not satisfy all of the requirements
9 we have for zero emission vehicles. Puts us down a
10 pathway, but more is going to need to be done.

11 CHAIRPERSON WEISENMILLER: Thanks.

12 MR. WHTIE: Thank you.

13 COMMISSIONER PETERMAN: Well, thank you for all
14 the public comment. Going through the Advisory Committee
15 meetings, they're full days. And hearing the public
16 comments today is kind of a speed version of doing that
17 where you get a little bit of a flavor for the wide
18 variety of projects and opportunities and issues that are
19 before the Commission and related transportation.

20 Commissioners, if I may, I'm going to offer a
21 couple overarching comments and then I'd like to offer
22 some specific comments on some of the issues that came up
23 a few times. And I'll pause after each offering those
24 comments and see if you want to have some discussion about
25 that.

1 So first of all, I'll say now and then I will say
2 at the end when we vote on this item, thank you very much
3 to the Transportation Division and the AB 118 staff. They
4 put a tremendous amount of work into this plan, working on
5 this plan, while at the same time working to get out the
6 solicitations for the current funding. And you can see as
7 everyone has commented, the plan has improved over time
8 and we continue to welcome the feedback we get from the
9 various stakeholders.

10 Adoption of this plan reinforces the outlook that
11 California needs investments in several area to fulfill
12 multiple policy goals, mandates, Governor's Executive
13 Orders, and regulations regarding alternative fuels,
14 greenhouse emission reductions, energy diversity, and
15 economic development.

16 AB 118 funded plans really measure early action
17 items that we need, particularly to address AB 32 goals,
18 the low carbon fuel standard, and the Governor's Zero
19 Emission Vehicle Executive Order, and ARB's ZEV mandate.
20 And indeed, there are a number of policies that this
21 program can support.

22 By statute, the program is required to provide
23 preference to those projects that maximize the goals of
24 the program based on criteria such as measureable
25 transition to fuels that meet petroleum reduction goals,

1 reduction in air pollutants and air toxics, ability to
2 decrease on the life cycle basis water pollutants,
3 economic benefits for California, and reduce carbon
4 intensity of at least ten percent.

5 With this set of goals, the program strives to
6 support a balanced and a diversity of resources without
7 adopting any one preferred fuel or technology.

8 We invest in the array of technologies and
9 activities, such as workforce development as well, that
10 have been identified in the statute. So if you go back
11 and look at the statute, many of the technologies that are
12 discussed today, almost all of them, are explicitly called
13 out as technologies and resources that should be supported
14 by the program.

15 AB 118, as I mentioned a number of times, has
16 limited funding. And as such, we have to make difficult
17 choices about what to fund and when. A number of you
18 today and in previous meetings have called for more
19 funding specific areas and have identified what I truly
20 think are real needs in those spaces.

21 However, I would ask you in both your comments
22 going forward and in our dialogue with us as you request
23 more funding in certain areas to also tell us where you
24 would cut, because it's a zero sum game. And that's the
25 trade-off we have to make, and we really look for your

1 feedback on that. You all have access to the entire plan.
2 You're able to look across all the entire categories.
3 That's the type of input we really can use.

4 We didn't go too much into it today, but those of
5 you who are interested in understanding more the context
6 and the rational for the Energy Commission's decisions
7 should re-visit the last major plan, which was the 11/12
8 plan I believe that explained the rational. The update
9 provides some information that's useful as well, but the
10 larger document really gives you a good insight.

11 Also particularly valuable, if you haven't read
12 it yet, is the benefits report that Pat Perez mentioned
13 earlier. This outlines some of the benefits of the
14 projects, including the ability to meet some of these
15 goals, such as greenhouse gas reductions, as well as
16 reduction in air pollutants.

17 I want to thank the comments that were made about
18 the importance of metrics. I support those comments, and
19 it is an area that we will continue to look at. I think
20 it is a challenge to figure out the right metrics for
21 emerging technologies towards a 2050 goal. There is a lot
22 of inherent uncertainty out there, and we have to be
23 mindful of that. But it's continually important to us to
24 be able to quantify the benefits of these serious
25 investments that rate payers are making.

1 I just want to say this work would not be
2 possible without the involvement and support of the
3 Advisory Committee. We have 20 members on the Advisory
4 Committee representing industry groups, State agencies,
5 environmental organizations, academic institutions, school
6 districts, labor organizations, venture capital, and
7 general members at large. It's an amazing dialogue to
8 engage in. And appreciate the hard work that many of you
9 have put in for this.

10 Also say that we received 30 plus sets of
11 comments on this plan and the updates we've had -- we've
12 had I think at least two public meetings on this and that
13 we reflected those comments in this most recent draft.

14 So that's my general overarching comments. And
15 I'm going turn to some of the specific issues that were
16 raised.

17 First, I'll turn to the support we consistently
18 heard and increasing by so in the last few months for the
19 medium/heavy-duty demonstration category. Indeed, this is
20 an important area to invest in. As has been mentioned,
21 the emissions from goods movement are significant. Medium
22 heavy-duty trucks and buses represent four percent of the
23 total number of vehicles in California, but use 17 percent
24 of the fuel. This is an area that we have invested in and
25 will continue to do so.

1 As was mentioned, there was a solicitation
2 earlier this year for approximately \$16 million. The Item
3 Number 5, which we'll vote on, is proposing to provide an
4 additional 5.2 million I believe into that category. And
5 we have six million in proposed funding going forward.

6 I appreciate that many feel this is not enough
7 and that there is a request for approximately \$30 million
8 of funding a year. Again, with limited funds, we're doing
9 what we can and we will increase to the extent possible.
10 But we're incredibly supportive of cost sharing with both
11 sister agencies, South Coast and federal government and
12 more projects like that that can be brought to us, the
13 more our funding can be spread out.

14 Similarly, we're supportive of investments in the
15 light-duty vehicle space. The AB 118 program that the
16 Commission manages is a compliment to the ARB's program.
17 So to that extent, we provide some funding support in that
18 program, but also we have a broader set of goals, if you
19 will. So those are my initial comments on the
20 medium/heavy-duty space.

21 And I also have one comment. I hear the concern
22 that the last solicitation perhaps did not provide as
23 sufficient a preference for goods movement as has been
24 desired. I think going forward I recommend that staff in
25 future solicitations really focus on the selection

1 criteria and learn from stakeholders who are involved in
2 this process about what they think went wrong with that
3 last solicitation.

4 Commissioners, do you have any comments on the
5 medium/heavy-duty demonstration on electric vehicles space
6 generally?

7 So I have a long list here. Next, I'll turn to
8 the topic of ethanol and the funding of the CPIP program.

9 I'd like to note that the operation of existing
10 California ethanol production plants has gained our
11 attention again in the past few weeks and spurred
12 discussion among legislators and the Governor's office.

13 Just a little bit of background for those who
14 have not been familiar with that program because a number
15 of comments were raised about it today. The Energy
16 Commission established the California Ethanol Producer
17 Incentive Program, CPIP, in early 2010 to address adverse
18 market conditions that were resulting in high corn prices
19 and relatively low ethanol prices that made it difficult
20 for California ethanol producers to cover cost while
21 competing with highly subsidized ethanol producers from
22 the midwest.

23 Due to a number of factors, the initial six
24 million allocation was exhausted sooner than originally
25 projected and funds have not been repaid. The Energy

1 Commission suspended further funding for CPIP last year.
2 The topic of supporting corn ethanol in particular has
3 been discussed in previous Advisory Committee meetings and
4 there has been a mix of support.

5 The CEC has stated and continues to support the
6 development of advanced lowest cost cellulosic biofuels
7 and lower Carbon biofuels and appreciates the support for
8 such biofuels that has been expressed by the Advisory
9 Committee as well as members of the Legislature and
10 various stakeholders.

11 The Commission continues to offer funds and
12 grants to spur the development of advanced cellulosic
13 ethanol plants. And some of the parties that have spoken
14 today have been recipients of some of those grants
15 specifically targeted at advanced biofuels. However, new
16 information about the potential connection between the
17 survival of existing corn ethanol plants and the
18 development of advanced biofuels I think compels our
19 involvement to open discussion about the future of the
20 corn ethanol industry in California and its relationship
21 with transportation fuels and agricultural markets.

22 With the adoption of this plan, I'm recommending
23 that we re-visit the issues surrounding existing
24 California ethanol production plants over the next few
25 months with stakeholders, the AB 118 Advisory Committee,

1 legislators, and the Governor's office.

2 As such, although I'm not recommending augmenting
3 or changing the Investment Plan today, I'm recommending
4 that the CEC hold a public stakeholder workshop within the
5 next 90 days to examine corn ethanol in California and a
6 pathway to sustainable advanced biofuels.

7 At the workshop, we will solicit input on whether
8 the AB 118 plan 2012-2013, which we are voting on today,
9 should provide funding for corn ethanol. And if so, the
10 extent of funding and where in the fund such money should
11 come from. Consequently, we reserve an option to redirect
12 funding from the manufacturing or other incentive
13 categories, if allocation change is needed and
14 substantiated.

15 So these are my thoughts right now on the support
16 we have heard for advanced biofuels and the potential role
17 that the support for corn ethanol plants and their ability
18 to help transition to them.

19 Commissioners, do you have any questions or
20 comments strictly as it relates to CPIP funding?

21 COMMISSIONER DOUGLAS: I think you've outlined a
22 good way to proceed in order to explore the issue and
23 explore it in a public forum.

24 CHAIRPERSON WEISENMILLER: I agree. I think the
25 information we're really looking for in that forum in part

1 is real numbers on whether the projects are sustainable,
2 moving forward, and how they fit into. Again, I think all
3 of us know where we want it to find very strong
4 legislative support on the cellulosic, not much
5 legislative support on the corn ethanol frankly.

6 And you know, again, these have to be seen as a
7 pathway, but they have to be sustainable. We've heard
8 again and again this morning how any number of areas need
9 more funding. And as Commissioner Peterman said, this is
10 a zero sum game. So certainly for the Advisory Committee
11 members who are suggesting more money here, it's got to
12 come from somewhere. If you don't specify, frankly, I'm
13 going to assume it's the area you're representing.

14 COMMISSIONER PETERMAN: And I would say, Chair
15 Weisenmiller, I'm sure you are as well, very sensitive to
16 the jobs associated with these existing corn ethanol
17 plants and the role they have played to date with helping
18 to meet the low carbon fuel standard. We take that point
19 very seriously, and which is why I think it's important
20 for us to have a discussion soon within the 90 days, as I
21 mentioned, on this topic and this resource.

22 And please see this as a signal from myself and
23 the Commission that we are interested in getting, as the
24 Commissioner mentioned, a robust set of data and input
25 from all stakeholders on this topic so that we can move

1 quickly and reflect really the views of the State as well
2 as the various stakeholders and this legislation.

3 Want to make sure that whatever we're funding
4 addresses the highest priorities identified in the AB 118
5 legislation. And I'm looking forward to that discussion.

6 CHAIRPERSON WEISENMILLER: Again, I would just
7 echo again your comments on the importance of jobs and
8 also the importance of having a very clear pathway spelled
9 out on how we get the advanced biofuels.

10 COMMISSIONER PETERMAN: So if there are no other
11 comments --

12 COMMISSIONER DOUGLAS: Just one comment. I noted
13 chuck white's comments on landfill methane versus other
14 forms of bio energy. And it just seemed to me that's
15 another one that you might want to as you noted yourselves
16 accelerate and work on because there's tremendous
17 potential in California in that area as well and I just
18 want to make sure that of course we want to recycle and
19 want to divert. We want to compost and do all those
20 things and yet there is potential there. So I noted his
21 comment.

22 At the same time, I strongly support the
23 Investment Plan. So I look forward to your motion.

24 COMMISSIONER PETERMAN: Thank you, Commissioner
25 Douglas. And I've noted your support for further

1 examining that issue and we will do so.

2 CHAIRPERSON WEISENMILLER: At this point, I think
3 we want to address Items 4 and 5 with separate motions.

4 COMMISSIONER PETERMAN: Yeah, let me make a
5 comment on Item 5. I forgot we were handling them
6 together.

7 Again, I appreciate the concern that has been
8 raised about those projects that were successful in the
9 last solicitation in terms of not having an overarching
10 focus perhaps on dry goods movement.

11 I'm still supportive of Item Number five. These
12 are 2010-2011 funds that became available for a number of
13 reasons. The Deputy Pat Perez perhaps can speak to this
14 more. But these are funds that were not needed in the end
15 for some of our support activities, as well as -- maybe,
16 Pat, you can speak to the reason why we have the funds
17 first.

18 DEPUTY DIRECTOR PEREZ: We had in one case,
19 Commissioner, a project that fell out. I believe it was
20 in a bankruptcy I believe.

21 In terms of the solicitation, we have -- so it's
22 a combination of funding sources here.

23 And maybe one of the things I should just take a
24 minute and explain what we're proposing to fund with this
25 five million in allocation because I think there may be

1 some confusion there.

2 Let me also acknowledge Matt's letter that he
3 just delivered to us, too. It's an important contribution
4 to this discussion. And hopefully I can provide a little
5 clarity here on what we're doing. And maybe recite some
6 of the key recommendations in this letter dated May 8th,
7 which I just saw today for the first time and as I was
8 listening to people's presentations. It's always
9 dangerous when I respond to something on the spot though.
10 Let me attempt to do that here.

11 First point in there, for the medium, some of the
12 recommendations and corrective actions outlined in this
13 letter include: One, for the medium and heavy-duty
14 advanced vehicle technology demonstration projects, the
15 Energy Commission should reopen bidding for any remaining
16 or available funds, headroom number and success by staff.
17 This would allow more appropriate prioritization for zero
18 emissions goods movement technology, as well as
19 incorporation of new projects. For example, the "overhead
20 catenary trolley truck."

21 I do want to just acknowledge that, yes, we are
22 facing an encumbrance cliff on this funding. What are we?
23 Six, seven weeks away? We don't have a lot of choices
24 here.

25 One of the recommendations, of course, was to go

1 back on a solicitation that we already had in place with
2 very good projects that we could fund immediately. That's
3 what's before you today.

4 I want to site that on that Notice of Proposed
5 Award that I described earlier this morning in reference
6 to the third revised Notice of Proposed Award dated April
7 27th, we funded a variety of different projects that we
8 believe provide strong public benefits throughout
9 California and including in Southern California. Many of
10 these projects are off-road, not as regulated as the
11 on-road sector. We see some significant public health
12 benefits there.

13 With respect to the criticism on goods movement
14 and all that, we had hoped to see more stronger proposals
15 come forward. In terms of the evaluation, many of those
16 projects did not fair as well as the other projects that
17 are in this Notice of Proposed Award. However, there are
18 a number of drayage projects that we are funding. And as
19 part of the proposal that is before you today, it enables
20 us to move down that list and at least capture a couple
21 more -- or at least one big proposal, the transportation,
22 power, electric drayage demonstration project in terms of
23 partially funding that, which was not previously funded.
24 That's very exciting and I think compliments where the
25 South Coast Air Quality Management District would like to

1 see us move.

2 Furthermore -- and again this is kind of real
3 time -- as we look at what's called head room area, what
4 we could do with your action today on adoption of this
5 12/13 Investment Plan, one of the options is that we could
6 take a portion of that funding -- of course, we can't do
7 it until we have a State budget. But we could probably --
8 I believe we have sufficient head room to move down and
9 perhaps fund a couple of additional projects that are
10 drayage related on this Notice of Proposed Award because
11 they did pass technical score. So we can delve into that
12 a little bit deeper.

13 Let me just quickly move into Item 2 on that
14 letter. And again I'll quote it and read it verbatim for
15 the benefit of those listening in and those who did not
16 see this letter.

17 "As you are aware, previous block grant
18 solicitations are only for nonprofit
19 organizations with passage of AB 1314. Block
20 grant solicitations should be made available to
21 Air Districts to enable further leveraging of AB
22 118 funds.

23 "The South Coast Air Quality Management
24 District has extensive, technical, and
25 administrative experience working with engine and

1 truck manufacturers through the Technology
2 Advancements Office, the multiple projects
3 underway or under consideration that align well
4 with this category."

5 And let me say we completely agree with that
6 statement. And we are a partner with South Coast. We
7 look forward to working with them in shaping of future
8 solicitations.

9 If I may, let me try to respond to Item 3 here in
10 this letter. And again, I'll read it into the record.

11 "Finally, the medium and heavy-duty advanced
12 technology demonstration category in the 2012/2013
13 Investment Plan should be increased to \$10 million with
14 priority given to zero emission goods movement
15 technology."

16 And we realize, as you stated earlier, as we
17 balance the competing or what I'd like to refer to
18 complimentary public policy objectives here, it is a zero
19 sum game, as the Chairman noted. And if we could, we
20 would put more money into this category.

21 But I also want to highlight in this very diverse
22 portfolio that we have crafted here in this Investment
23 Plan the need to look beyond the medium/heavy-duty
24 category, because we're also in some of the other funding
25 categories providing significant funding to medium and

1 heavy-duty projects.

2 And perhaps I could defer for a moment to
3 Mr. McKinney just to share with you the additional funding
4 that's being provided to support strategies and efforts to
5 foster and encourage greater penetration of the
6 transportation sector with medium/heavy-duty vehicles.

7 EMERGING FUELS AND TECHNOLOGIES OFFICE MANAGER MC
8 KINNEY: Good morning, Commissioners. Jim McKinney,
9 Manager of the Emerging Fuels and Technologies Office to
10 follow up on Pat Perez's points.

11 So if you tally up the \$12 million in proposed
12 funding for medium-duty, heavy-duty gas use fuels -- so
13 it's primarily natural gas trucks and propane trucks, plus
14 six million, that's \$18 million. That's 18 percent of the
15 program budget as recommended by staff. You add in the
16 5.4 million staff recommendation to backfill the
17 medium-duty/heavy-duty solicitation, that takes you to
18 23.4 million.

19 We have discussed the potentially available fund
20 in the ARB's HVIP program. We think we're putting a lot
21 of money into the medium-duty/heavy-duty truck sector.

22 I would note many of the advanced technology
23 fuels project that we are funding in terms of renewable
24 diesel and biogas, if you have a truck fleet that's
25 outfitted for natural gas use, you can put biogas into

1 that. That's the lowest carbon intensity fuel available
2 on the market at this point. The same with renewable
3 diesel. That's a completely fungible fuel product. You
4 do not need motor modifications.

5 So in sum, we think we are doing well by this
6 particular sector and we do note the call for more
7 funding.

8 DEPUTY DIRECTOR PEREZ: And may I just add that
9 we take your guidance seriously, Commissioner Peterman.
10 We think after this meeting we will pursue the development
11 of future solicitations. Really explore that criteria, as
12 well as go back and try to get a better assessment on why
13 those projects did not score as high as many of the
14 parties would have liked to have seen. It could be a
15 deficiency in the criteria that we use to judge
16 applications. It could be weak proposals by the
17 applicants that were submitted for whatever reasons. It
18 could be a combination of both or other reasons. So we'll
19 certainly pursue them.

20 MR. LEVY: Commissioners, may I ask for one more
21 clarification from Mr. Perez? I didn't hear where the
22 \$5.4 million was going. I wanted to make that clear for
23 the record.

24 DEPUTY DIRECTOR PEREZ: Basically, that funding
25 would be used -- and I'll put into the record. This would

1 support projects that are identified in the public
2 notice -- the third Revised Notice of Proposed Awards for
3 the Alternative and Renewable Fuel and Vehicle Technology
4 Program grant solicitation PON-10-603. We would be
5 backfilling the awards there and for those that passed
6 technical scoring. And one of the awards would be partial
7 because we don't have sufficient funding for all three of
8 those projects.

9 Thank you for that reminder though.

10 COMMISSIONER PETERMAN: Pat and Jim, thank you
11 very much for that additional information on Item 5.

12 It's very important that we spend all these funds
13 and spend them on projects that meet our criteria. So
14 considering the near encumbrance deadline, I'm supportive
15 still of Item Number 5 and the backfill of that past
16 solicitation.

17 So are there any other comments? I think we were
18 at the place where we were going to offer a motion for
19 Items 4 and 5 together -- or should we do them separately.
20 We can do them separately. That's fine.

21 So I will move Item Number 4.

22 COMMISSIONER DOUGLAS: Second.

23 CHAIRPERSON WEISENMILLER: All those in favor?

24 (Ayes)

25 COMMISSIONER PETERMAN: I will move Item Number

1 5.

2 COMMISSIONER DOUGLAS: Second.

3 CHAIRPERSON WEISENMILLER: All those in favor?

4 (Ayes)

5 CHAIRPERSON WEISENMILLER: Okay. Both items have
6 been passed unanimously. Thank you.

7 COMMISSIONER PETERMAN: Thank you very much.

8 CHAIRPERSON WEISENMILLER: So next item, Chief
9 Counsel's report.

10 MR. LEVY: Thank you, Commissioners.

11 I'd like to request an Executive session, please,
12 to discuss two items. One is to discuss facts and
13 circumstances that present exposure to the Commission from
14 litigation. And the second one is to discuss whether or
15 not to initiate litigation.

16 CHAIRPERSON WEISENMILLER: Thank you. We're
17 going to go into executive session. We'll be back on the
18 record in an hour. So 1:30.

19 (Whereupon a lunch recess was taken
20 at 12:34 p.m.)

21

22

23

24

25

1 I'll move consent calendar Item d.

2 COMMISSIONER MC ALLISTER: Second.

3 CHAIRPERSON WEISENMILLER: All those in favor?

4 (Ayes)

5 CHAIRPERSON WEISENMILLER: Consent calendar Item
6 d has now passed.

7 Item Number 6, Renewable Portfolio Standard
8 Eligibility Guidebook. For the presentation purposes,
9 we'll cover 6 and 7. Seven is the Overall Program
10 Guidebook for Renewable Energy Program. And we may well
11 vote separately on both of those.

12 (Whereupon an overhead presentation was made
13 as follows.)

14 MS. ZOCCHETTI: Thank you. Good afternoon, Mr.
15 Chairman and Commissioners. And welcome, Commissioner
16 McAllister.

17 I'm Kate Zocchetti with the Energy Commission's
18 Renewable Energy Office. I'm presenting for possible
19 adoption by the Energy Commission the Renewable Portfolio
20 Standard Eligibility Guidebook and the overall Program
21 Guidebook for the Renewable Energy Program.

22 --o0o--

23 MS. ZOCCHETTI: The RPS Eligibility Guidebook
24 explains the requirements and processes for certifying
25 eligibility renewable resources for California RPS program

1 and describes how the Energy Commission tracks and
2 verifies compliance with the RPS. And the overall Program
3 Guidebook describes how the Renewable Energy Program is
4 administered and includes information on requirements that
5 do apply to the RPS.

6 --o0o--

7 MS. ZOCCHETTI: So staff proposes revisions to
8 the guidebooks periodically with guidance and input from
9 the Renewables League Commissioner in response to new
10 legislation, CPCS decisions on RPS matters, and lessons
11 learned from implementing and administering the program.

12 Today, our lead Commissioner is Commissioner
13 Carla Peterman.

14 The Energy Commission held a staff workshop on
15 October 11th, 2011, to discuss the initial staff draft
16 Guidebooks and to solicit public input. And we received
17 more than 30 comments on that process.

18 Lead Commissioner draft guidebooks released for
19 public comment on April 18th of this year reflected that
20 public input and additional proposed changes as a result
21 of public input to the RPS Eligibility Guidebook were
22 posted on April 27th with comments to due May 5th.
23 Guidebooks do become effective upon adoption.

24 --o0o--

25 MS. ZOCCHETTI: This slide just shows the basic

1 categories that have had revisions. In addition to these
2 revisions to these categories, much of the text in the
3 draft Guidebooks have been rearranged and moved around so
4 the red lined version looks quite busy but it does not
5 reflect as many changes as it looks.

6 --o0o--

7 MS. ZOCCHETTI: The guidebook always has a
8 section -- or always has at least on outstanding issues.
9 Several outstanding issues facing the Energy Commission
10 could effect these Guidebooks going forward, and these are
11 identified in the Guidebook to put stakeholders on notice
12 that the Energy Commission continues to address these
13 issues.

14 Right now, in this draft Guidebook -- I should
15 explain that I'm going to first cover the RPS eligibility
16 Guidebook, and then I will address the overall program
17 Guidebook. My apologies.

18 The first storage-only facilities currently using
19 pumped hydro and fuel cells are currently eligible for the
20 RPS that utilize storage applications in addition to
21 storage capabilities. That is integrated into the
22 facilities such as the solar thermal facilities.

23 On 33 percent by 2020, the Guidebook implements
24 several provisions of Senate Bill X1-2, but other issues,
25 such as verification of portfolio content categories that

1 I'll discuss in a moment, will be addressed in future
2 revisions of these Guidebooks.

3 For biomethane, eligibility for facilities using
4 biomethane injected into the natural gas pipeline was
5 suspended at the March 28th business meeting.
6 Consideration of the status of biomethane applications is
7 deferred until a future business meeting. And this
8 suspension will remain in effect until the Energy
9 Commission lifts it.

10 Pre-certification is available to applicants of
11 facilities not yet online or commercially operational, but
12 it is not a guarantee of future certification. As part of
13 the initial Draft Guidebooks, staff posed questions
14 regarding pre-certification. And staff hosted a webinar
15 as well to invite public comments.

16 At this time, staff proposes to continue that
17 dialogue with stakeholders to explore possible revisions
18 to the pre-certification process in future Guidebooks.

19 Lastly, the existing Renewable Facilities Program
20 was available to RPS eligible facilities online before
21 September 1996, and it provided production-based incentive
22 payments on the difference between the market price and a
23 set target price. That program did expire in December of
24 2011, and RPS treatment of former participating facilities
25 will be addressed in the future Guidebook.

1 --o0o--

2 MS. ZOCCHETTI: The guidebook then goes into new
3 legislation affecting RPS eligibility. And first and
4 foremost, Senate Bill X1-2, which majorly revised the RPS
5 program by setting a goal of 33 percent retail sales from
6 renewables by 2020 for all those serving entities and
7 requiring the Energy Commission to adopt new RPS
8 regulations specifying the enforcement provisions for
9 California publicly-owned electric utilities.

10 The Energy Commission released draft regulations
11 for the POUs in February of this year and plans to release
12 a revised draft followed by another workshop this summer
13 to discuss the revised draft. The Energy Commission hopes
14 to adopt final regulations for the POUs by the end of this
15 year.

16 --o0o--

17 MS. ZOCCHETTI: Another bill was Assembly Bill
18 920. It provides for surplus net metering and eligible
19 customer generator of a facility of no more than one
20 megawatt in capacity that elects to participate in the net
21 surplus tariff will be compensated by the utility for the
22 value of the facilities' net surplus electricity for over
23 a twelve-month period.

24 --o0o--

25 MS. ZOCCHETTI: And Assembly Bill 1954 changes

1 the Energy Commission's diminimus non-renewable fuel use.
2 In the past, the Energy Commission had the authority to
3 set a diminimus quantity of non-renewable fuels that could
4 be used and still count 100 percent of the facilities'
5 output as renewables for the RPS.

6 The Energy Commission set that amount at 2
7 percent of a facility's annual generation based on heat
8 contents of all fuel inputs.

9 AB 1954 now directs the Energy Commission to set
10 the diminimus quantity of non-renewable fuel use for each
11 renewable technology at no more than two percent to
12 account 100 percent for the RPS. It also allows
13 adjustment of up to five percent if certain conditions are
14 met.

15 --o0o--

16 MS. ZOCCHETTI: Then starting into the
17 eligibility requirements revisions, Senate Bill X1-2 --
18 well, before the passage of X1-2, eligibility was based
19 for facilities on the location of the facility. For a
20 facility located outside California, eligibility was based
21 on the location of its inter-connection to the
22 transmission grid, so long as the facility was in the WECC
23 territory. SB X1-2 revised eligibility requirements
24 somewhat so if a facility meets all other eligibility
25 criteria and is located in California or near the border

1 of the state with the first point of inter-connection to a
2 California balancing authority, it is a renewable
3 electrical generation facility.

4 If a facility has its first point of
5 inter-connection to the transmission network outside the
6 state and it must begin commercial operation after January
7 2005 and demonstrate it does cause or contribute to a
8 violation of a California environmental quality or
9 standard.

10 Two exceptions to this online data are if the
11 electricity from the facility was procured by a retail
12 seller or POU as of January 2010. That's a new provision
13 under SB X1-2. Or if the electricity is from incremental
14 generation, resulting from a facility's expansion or
15 repowering. That has always been in the law.

16 --o0o--

17 MS. ZOCCHETTI: Just briefly going over the
18 change from an annual procurement requirement now to
19 compliance periods and procurement targets for retail
20 sellers and POUs.

21 As shown here, the first compliance period we're
22 about smack in the middle of it. It's 2011 to 2013. And
23 it sets the 20 percent target that was under the former
24 statute now to the end of 2013 over the average of those
25 years. And two more compliance periods ending in 33

1 percent by December 31st, 2020. The CPUC sets the
2 procurement targets for retail sellers, and the POU's
3 Governing Board set their own procurement quantities.

4 --o0o--

5 MS. ZOCCHETTI: The next slide provides an
6 overview of the portfolio content categories, as we gladly
7 call them the buckets. These are further defined by the
8 CPUC for the retail sellers and again by the Energy
9 Commission for the POU's.

10 A California balancing authority is defined in
11 statute and in the overall Program Guidebook. The partial
12 definition provided here is the balancing authority with
13 control over balancing authority area primarily located in
14 the state. Meaning, at more than 50 percent of its load
15 is physically located within the geographical boundaries
16 of California. Just want to make that clear for parties
17 that aren't familiar with the buckets.

18 --o0o--

19 MS. ZOCCHETTI: Portfolio content category two
20 provides firmly and shaped electricity products providing
21 incremental electricity and scheduled into a California
22 balancing authority.

23 If I may go back one slide.

24 Portfolio Content Category 1 has to have a first
25 point of inter-connection with a California Balancing

1 Authority or distribution facility serving California
2 customers or rescheduled into a California balancing
3 authority without substituting electricity or having a
4 dynamic transfer agreement to do so.

5 And then lastly, Portfolio Content Category 3 is
6 eligible electricity projects, including unbundled
7 renewable energy credits that do not qualify under
8 Categories 1 or 2.

9 --o0o--

10 MS. ZOCCHETTI: This slide is just a graphical
11 representation of those categories and shows how there are
12 minimum and maximum quantities for bucket one and bucket
13 three across the compliance periods.

14 On the bottom in the green is bucket number
15 three. It has a maximum procurement. So by the end of
16 2013, no more than 25 percent can be procured from that
17 bucket and so forth. Whereas, the red in the middle are
18 Portfolio Content Category 1 products and it is a minimum
19 threshold. So at least 50 percent needs to be procured
20 under that bucket by 2013 and so on.

21 Bucket three, as you can see, declines over the
22 compliance periods, whereas bucket one grows.

23 --o0o--

24 MS. ZOCCHETTI: Bucket two is whatever remains.
25 There is no minimum or maximum.

1 And then going into the different fuels and
2 technologies, changes in this Guidebook include two hydro
3 electric facilities. And by implementing SB X1-2, it
4 allows RPS eligibility for an existing small hydro unit up
5 to 40 megawatts if it is operated as part of a water
6 supply or conveyance system and the electricity was
7 procured by a retail seller or POU as of December 2005.
8 Eligible units must meet the definition of water supply or
9 conveyance defined as in the overall Program Guidebook.

10 As I noted, facilities using non-renewable fuels
11 may now use up to two percent annually with an adjustment
12 up to five percent annually for 100 percent of the output
13 to count as RPS eligible. If a facility is allowed to
14 count allowable diminimous quantity of non-renewable fuel
15 use, if the use does not exceed ten percent of the
16 facility's total annual energy inputs. Previously used
17 diminimous and fossil fuel allowances will apply to
18 facilities certified under previous conditions of the
19 Guidebook if the facility continues to meet those
20 requirements.

21 So thermal facilities using direct steam with no
22 thermal storage capacity may increase or maintain thermal
23 energy with non-renewable fuel after daily shut down and
24 next morning start up without counting fuel use towards
25 the facility's allowable diminimous levels.

1 RECs from multi-fuel facilities will not be
2 labeled as California RPS eligible in WREGIS until after
3 the Energy Commission has verified that non-renewable fuel
4 did not exceed the facility's allowable use for the
5 previous year. In addition, only RECs that remain in the
6 initial WREGIS account will be so labeled.

7 --o0o--

8 MS. ZOCCHETTI: A facility that is repowered as
9 provided in the Guidebook and the RPS Eligibility
10 Guidebook may revise its commercial operation date to its
11 repowering date. For example, if an existing renewable
12 facility located outside of California repowers according
13 to the RPS eligibility requirements, it can be eligible
14 for the RPS. Applicants must submit documentation
15 confirming that the prime generating equipment was
16 replaced with new equipment and document the value of the
17 investments made to repower the facility.

18 These changes on this slide show that -- are
19 proposed to better align the requirements across
20 technologies. For example, by requiring the solar boiler
21 to be also replaced at a solar thermal facility. But to
22 clarify, only the structure directly supporting the
23 turbine at the hydro electric facility need be replaced to
24 be determined to be repowered.

25 --o0o--

1 MS. ZOCCHETTI: SB X1-2 eliminates electricity
2 delivered from the eligibility requirements for RPS. So
3 for generation beginning January 1st, 2011, the Energy
4 Commission will no longer verify energy deliveries.
5 However, the Energy Commission will likely collect data
6 regarding deliveries or similar information to verify the
7 portfolio content categories. Just like to put folks on
8 notice about that. That will be coming up.

9 Senate Bill X1-2 provides the provision that
10 facilities located outside the United States must
11 demonstrate the facilities developed and operated in a
12 manner that is as protective of the environment as a
13 similar facility located in California, regardless of the
14 facility's location or its inter-connection point.

15 With the adoption of this Guidebook, all
16 connected renewable electric generating facilities may be
17 certified as RPS eligible, including facilities with RECs
18 for on-site load. This guidebook establishes the rules
19 for RECs to be eligible, including participation in
20 WREGIS, a meter rating of two percent or greater accuracy,
21 and only generation occurring after the certification's
22 beginning-on date, which is established with the receipt
23 of the application is that facility to be determined RPS
24 eligible.

25 Aggregation will be required for most facility's

1 20 kilowatts and under for wind and PV facility's only
2 with similar characteristics for sharing similar
3 characteristics. With so many different types of
4 facilities now participating in the RPS --

5 --o0o--

6 MS. ZOCCHETTI: -- we have established middle
7 kind of a group of technology types so that folks can
8 better find out in the guidebook and on our forms where
9 they fit and what type of application to submit.

10 For aggregated facilities, as I said, that is for
11 small wind and solar PV facilities only. We developed and
12 are offering a mass certification for facilities serving
13 POUs. This is similar to our earlier use of the RPS II
14 form to allow the utilities to quickly certify their
15 facilities when the RPS program started. And we're
16 extending that to the POUs. It provides a streamline
17 process for five or more facilities under contract with
18 the POU, and those that are not -- including those that
19 are not requiring any supplemental information.

20 However, facilities that are certified on that
21 form can only claim generation that are under those
22 contracts. We're establishing a category called -- we are
23 calling a limited certification for facilities under
24 contract with the retail seller or POU before June 2010
25 that met the requirements in the RPS Eligibility Guidebook

1 when the contract was executed, but that it doesn't meet
2 the current requirements. Only generation again under
3 contract can be counted for RPS, except for allowable
4 amendments in the law.

5 Utilities certified facilities is what I was
6 referring to a moment ago. That is now given this
7 sub-category. It is for facilities under contract with
8 the retail seller. Again, only generation under that
9 contract can be counted.

10 And lastly, a special pre-certification for
11 POU-related facilities that previously could only be
12 pre-certified because the law said they were under
13 contract with the POU, rather than retail seller so they
14 couldn't be fully certified.

15 --o0o--

16 MS. ZOCCHETTI: As we have done in the past,
17 annual reporting will be required. And we are setting in
18 this guidebook a June 1st date for procurement retired
19 from the previous calendar year.

20 For now, reporting for 2011, last year's
21 procurement is being delayed until we can provide
22 instructions for retirement in a future edition of the RPS
23 Eligibility Guidebook. Although the reporting requirement
24 is annual, the Energy Commission will not verify RPS
25 procurement for retail sellers or POU's until the end of

1 the compliance period.

2 --o0o--

3 MS. ZOCCHETTI: For WREGIS rules, retail
4 sellers -- as has been the case, retail sellers must
5 report procurement using WREGIS that begins with 2011
6 generation. We have provided a grace period for
7 facilities serving POUs, namely use the interim tracking
8 system beginning with January 2011 for generation that is
9 not in WREGIS, so long as the facility is registered in
10 WREGIS and applies for certification for the RPS by
11 October 1st, 2012. The exception to this is retail
12 sellers and POUs that need to report test energy that is
13 not yet being tracked in WREGIS.

14 CHAIRPERSON WEISENMILLER: If you can stop for
15 one second.

16 MR. OGLESBY: Sorry for the interruption.

17 As often happens with technological things, the
18 webcast has had an interruption. It didn't restart. So
19 what we need to do at the moment is interrupt the
20 presentation so we can log onto the webcast and then we
21 can resume.

22 Unfortunately, some of the folks will have missed
23 some of the testimony, but the materials has been publicly
24 available and noticed. So it will just take a couple of
25 moments, I'm told, while they try to essentially reboot

1 the system.

2 (Interruption in the proceedings.)

3 CHAIRPERSON WEISENMILLER: Back on the record.

4 MS. ZOCCHETTI: We apologize for the blackout.
5 I'm going to continue my presentation from where I left
6 off, in the interest of time, I believe. But we are
7 planning to post it on our website.

8 CHAIRPERSON WEISENMILLER: Thank you. Please do
9 that.

10 MS. ZOCCHETTI: So we were discussing WREGIS.
11 Just a couple more points on that slide. I'm not sure if
12 I noted all it says there.

13 After October 1st, 2012, all load-serving
14 entities must be using WREGIS. And by that date, WREGIS
15 generating unit ID numbers must be reported to the Energy
16 Commission staff.

17 --o0o--

18 MS. ZOCCHETTI: And I'd like to go into just a
19 few revisions that we've made also to the overall program
20 guidebook.

21 --o0o--

22 MS. ZOCCHETTI: And the Energy Commission used to
23 have standing designated Committees that oversaw policy
24 decisions made by the Commission, and the Commission no
25 longer has committees. So we revised the process we're

1 considering actions from the designated Committee to the
2 Executive Director. We're canceling renewable energy
3 program funding awards and RPS certification, for
4 determining eligibility to continued funding award
5 payments, for considering petitions for reconsideration by
6 an applicant or awardee, disputing the denial, reduction,
7 cancellation, or revocation of funding or certification,
8 and for considering petitions for reconsideration by an
9 awardee, disputing the amount of a funding award payment.

10 This guidebook revises the process for appealing
11 actions related to renewable energy program funding RPS
12 certification and dispute of funding award and payments.
13 This change uses the Energy Commission's existing
14 regulations for complaints and investigation under Title
15 22, California Code of Regulations Section 1230 and
16 provides a single centralized appeals process.

17 --o0o--

18 MS. ZOCCHETTI: The primary reference to overall
19 the program guidebook used by the RPS is its glossary of
20 terms. We've made a number of revisions and deletions to
21 some terms, but I've just listed here the terms that are
22 new to the glossary. And if you'd like, I can read them
23 into the record. But they're available in our draft.

24 CHAIRPERSON WEISENMILLER: That's fine.

25 --o0o--

1 MS. ZOCCHETTI: As I mentioned earlier, staff
2 received five comments and one more today after our
3 release of our last Notice for Consideration of these
4 guidebooks today. And we've carefully considered those
5 comments and discussed with many of the stakeholders. And
6 we have identified some corrections and clarifications
7 that we'd like to make to the guidebook. And we propose
8 that these errata be adopted today, along with the
9 guidebooks, if that's what the Commission decides.

10 We have them on handouts at the front table. And
11 I sent them to the Commissioners last night. And I'm
12 happy to read them into the record, if you'd like.

13 CHAIRPERSON WEISENMILLER: Sure. Go ahead.

14 MS. ZOCCHETTI: That makes Gabe happy.

15 CHAIRPERSON WEISENMILLER: That was my
16 assumption.

17 MS. ZOCCHETTI: Section 2 -- these are all in the
18 RPS Eligibility Guidebook. Section 2 under eligibility
19 sub-section C(2) diminimous quantity of non-renewable
20 fuels or energy resources on page 49 in the draft. We are
21 adding the term diminimous to the following: "All of the
22 generation from multi-fuel facilities using a diminimous
23 -- there it is -- "quantity of non-renewable fuels or
24 energy resources in the same generation process as the
25 renewable fuel or resource as measured by the methodology

1 approved for that specific facility may be counted as RPS
2 eligible." That just clarifies our intention to just mean
3 for the diminimous amount.

4 In Section 3 under the certification process
5 section, footnote 122 on page 78. We are correcting two
6 errors. First, it said June of 2012, and I'm going change
7 that to October for the following. POUs may use the
8 interim tracking system to report generation occurring
9 through October 2012. That is not tracked in WREGIS.

10 And then I'm going to strike out and be approved
11 by the following sentence. "Applicants must register
12 their facilities with WREGIS to receive a WREGIS ID
13 number." It was pointed out you do not need to be
14 approved by WREGIS to receive that number. And we
15 appreciate that correction.

16 Under the same Section 3 certification process
17 sub-section A, certification types, limited certification
18 page 84, I'm adding this phrase "except for contract
19 modifications noted above," and then it goes on to say, "a
20 facility receiving a limited certification will be
21 eligible for the RPS only for the duration of the contract
22 or ownership agreement originally executed prior to June
23 2010. This provision applies only to the generation
24 procured under the contract or ownership agreement."

25 And lastly, in Appendix B, forms, the

1 supplemental form for hydro electric on page 10, section
2 VII, Roman numerals water supply conveyance facilities,
3 number seven, we are clarifying one thing to say it is not
4 merely the capacity, but its name plate capacity. And we
5 are correcting an error that said 30 megawatts or less.
6 That should be "40 megawatts or less, with an exception
7 for eligible energy efficiency improvements made after
8 January 1st, 2008."

9 --o0o--

10 MS. ZOCCHETTI: Lastly, along with those errata
11 that we found in the comments, staff also agrees with some
12 other changes that were suggested. However, they rise
13 above the errata test because they are more substantive in
14 nature and trigger the Energy Commission's responsibility
15 to provide a minimum ten-day public notice of proposed
16 changes to these guidebooks.

17 Under the guidance of Commissioner Peterman,
18 staff wants to recognize these issues today and plans to
19 propose consideration of these issues and possibly others
20 at the first available business meeting after adequate
21 public notice. These issues are listed here revising the
22 effective date of RPS certification for facilities that
23 became eligible as a result of the passage of Senate Bill
24 X1-2 and kept them from being eligible on a going-forward
25 basis once the guidebook is adopted. Change that to being

1 And I respectfully ask that the Commission adopt the RPS
2 Eligibility Guidebook and overall program Guidebook for
3 the Renewable Energy Program. I would be happy to answer
4 any questions from the Commissioners.

5 I'd like to thank Gabe Herrera to my right for
6 his invaluable guidance and assistance and also staff
7 including, Mark, who was very instrumental in developing
8 these revisions.

9 CHAIRPERSON WEISENMILLER: Thank you.

10 Commissioners, any questions? Or do you want to
11 go to public comment?

12 COMMISSIONER PETERMAN: I'd like to go to public
13 comment first, and then I'll have some comments
14 afterwards.

15 CHAIRPERSON WEISENMILLER: We may have questions
16 for you later. But thanks again.

17 First comment, Steven Kelly.

18 MR. KELLY: Thank you, Commissioners. I'm Steven
19 Kelly with the Independent Energy Productions Association.

20 First, I want to thank newly assigned
21 Commissioner McAllister for his new appointment.
22 Congratulations on that.

23 Secondly, I'd also want to thank the staff, who
24 have been working so diligently on putting this Guidebook
25 together. IEP, of course, has been advocating for the

1 importance of getting this out so it can help guide
2 commercial transactions. And I really appreciate the
3 staff's work on this. Not only the Energy Commission, but
4 I also want to say I appreciate the PUC on all the work
5 they did in doing that.

6 We support adoption of this Guidebook. I
7 recognize that there are issues that are still remaining
8 and always will be. Kind of like a living document. And
9 we'd like to get this out so the commercial transactions
10 that are in play now can move forward and then deal with
11 the other problems as they come up.

12 And this raises the question why I particularly
13 was interested this commenting today because I have a
14 recommendation for next steps. Recently, I've heard
15 concerns expressed by some of my members and people on
16 representing the load about the uncertainty associated
17 with what kinds of transactions will meet the bucket one
18 transaction under the statute. And I think also this
19 applies to bucket two.

20 And what's happening, apparently, out in the
21 commercial world is because of the lack of clarity -- and
22 this has arisen apparently even after the draft Guidebook
23 language is on the street is stymied and created friction
24 between the parties, the buyers and sellers, for moving
25 forward with certain deals because the parties don't

1 really know if the particular transaction being discussed
2 is actually going to qualify as a bucket one transaction,
3 which as we know is the primary transaction that utilities
4 are seeking.

5 In light of that concern -- and that concern is
6 in the context of the past RPS RFOs, those that are being
7 negotiated today -- and if not fixed, it will have an
8 impact on the future RPS RFOs that may occur in the fall.
9 So I'm particularly concerned that this issue of a lack of
10 clarity get resolved as quickly as possible.

11 I'm here to make a recommendation this Commission
12 host a workshop of the CEC, the PUC, and interested buyers
13 and sellers to sit around the table and talk through what
14 kinds of transactions and what kinds of reporting
15 requirements are going to be needed to match against the
16 bucket one transactions or claims, perhaps the bucket two.
17 I actually think this is going to be a day-long workshop,
18 possibly two, depending on how long people want to work on
19 this. I know you have time constraints with your staff.

20 But I actually think this is really important
21 because it is going to enable the kinds of transactions
22 that the legislation was particularly focused on
23 facilitating. These are the transactions that are
24 directly interconnected under a bucket one concept.

25 So I would urge that we do that within the next

1 month, month-and-a-half, if we could, with a goal to
2 clarify for market participants exactly what it would take
3 to qualify as a bucket one transaction. I don't think it
4 requires new regulations in terms of your drafting. I
5 don't necessarily think it requires changes in the
6 guidebooks. I think the problem is the lack of certainty
7 or clarity amongst the buyers and sellers.

8 So I really urge you to consider that and put
9 that on the backs of your staff to help facilitate that
10 because I think it would be immensely helpful for the
11 marketplace.

12 CHAIRPERSON WEISENMILLER: Thank you.

13 COMMISSIONER PETERMAN: Chairman, before you turn
14 to the next commentor, I would ask -- thank you, Mr.
15 Kelly, for your comments. I don't have any questions for
16 you.

17 We have speakers coming representing the various
18 utilities. If you have any more insight about what Mr.
19 Kelly has said in terms of the potential uncertainty
20 around there and whether you feel such a workshop is
21 needed, I appreciate you providing comments on that as
22 well.

23 CHAIRPERSON WEISENMILLER: That would be good.

24 I was also going to note we're taking comments on
25 both 6 and 7 since the presentation covered both. Most

1 people said 7, a few also said 7.

2 Anthony Andreoni.

3 MR. ANDREONI: Good afternoon. Thank you,
4 Commissioner Chair Weisenmiller and fellow Commissioners.
5 I want to thank you for this opportunity to provide some
6 comments on the RPS guidance document.

7 First, I just want to let you know I represent
8 California Municipal Utilities Organization. And our
9 organization represents over 40 publicly-owned electric
10 utilities in California. We also have water members.

11 I also want to start, before I go through a few
12 of my comments. We did provide a letter to the CEC, and
13 we've greatly appreciated the staff, Kate, Gabe, Lorraine,
14 Angie, for working with us, providing some dialogue for us
15 to kind of go over our comments. So today there will only
16 be a few items we're going to touch on on our letter.

17 The first point I want to make within our letter
18 is we had suggested, given the timing that goes into
19 producing this document that's here today in front of us,
20 some set schedule that allows us to focus on when the next
21 version can be expected.

22 In our comment letter, we provided a soft date of
23 around February 1st, 2013. We threw that out, not trying
24 to force the issue. But at least getting some certainty
25 to the fact that we do need to focus on both the RPS

1 guidance document as well as the RPS rule that's being
2 developed. And CMUA members have supported 33 percent by
3 2020. As well, we supported some of the other areas that
4 were discussed earlier this morning, low carbon fuel
5 standard and cap and trade and so forth.

6 We also in our comments see a little bit of
7 conflict and we've talked a little bit with staff about
8 this. We've also been talking with ARB staff regarding
9 cap and trade and retirement of RECs. Currently, under
10 statute there is a 36-month window to allow to retire and
11 we appreciate that window.

12 Currently, within the cap and trade rule though,
13 there has been some discussion that some of those RECs,
14 depending on their use, have to be retired within that
15 same year that they're generated. So there are some areas
16 that I do believe need to be worked out and we encourage
17 staff to continue to work with ARB staff and help out in
18 that area.

19 The other issue I wanted to mention -- and
20 certifying POU resources, that's going to be a big effort
21 for many of our members. CMUA represents the large and
22 small publicly-owned utilities. And some of our members
23 today will have some additional comments to provide on
24 this. But we really need to see some flexibility in
25 certifying those resources. We understand the time

1 constraints and some of the timing that's been laid out in
2 the guidance document, but we do want to make sure that
3 there is some leeway there.

4 Again, we are supportive of the 33 percent by
5 2020. We also continue and encourage -- continued
6 dialogue, the discussions we've been having both on the
7 rule and on the eligibility guidance is very helpful to us
8 and we want to continue along that line perhaps with
9 additional webinars and/or workshops. But again, we
10 appreciated the dialogue that's been occurring up to this
11 point and look forward to continue working. Thank you.

12 CHAIRPERSON WEISENMILLER: Great. Thanks.
13 Randy Howard.

14 MR. HOWARD: Good afternoon. Randy Howard,
15 Director of Power System Planning and Development for Los
16 Angeles Department of Water and Power.

17 I also want to echo as well just the level of
18 outreach and communication we've had with Kate and Gabe
19 and the team. I really do appreciate all the effort
20 because it's been a learning exercise on both sides. We
21 do contracting differently than others might do. And
22 trying to educate and ensure that those considerations are
23 taken and they really have taken a lot of our
24 considerations.

25 So we filed written comments, so I'm going to

1 make a few oral comments here that I think are still
2 outstanding. I do appreciate that there are several
3 issues that were listed that will be taken up at a further
4 meeting. And I think several of those do impact Los
5 Angeles Department of Water and Power.

6 The city of Los Angeles and our governing
7 authority have committed to hundreds of millions of
8 dollars on renewable activity, and they did that prior to
9 SB 2-1 X and prior to the knowledge or consideration they
10 would be under the CEC jurisdiction or that these
11 preexisting facilities would have to somehow comply with
12 the RPS guidelines -- historical guidelines.

13 So we didn't make those decisions when we made
14 those decision in L.A. to meet the guidelines. Those
15 decisions were made -- the capital investments were made,
16 and they were made with the RPS policy adopted by our
17 governing authority. And we think the legislative intent
18 in SB 2-1 X was clear to deem those historical decisions
19 prior to 2010 as deemed certified. So we do have some
20 differences here with staff as to staff attempting to take
21 those facilities and fit them into a guideline or a box
22 that might not necessarily fit.

23 We have not determined for sure that any of our
24 existing facilities will not comply. I'll make that
25 known. We had that discussion. We have a lot of pending

1 requests for certification. We are also waiting to file
2 certification until this guideline comes out. So until
3 it's adopted and staff then reviews, we don't really know.
4 But we do believe that the legislative intent was these
5 facilities would be deemed certified.

6 Now, there's some reference to some guidelines or
7 policy that was in place. So LADWP believes under PUC
8 Section 399.16(d)(1) renewable energy resources would be
9 eligible under the rules in place as of the date when the
10 contract was executed. We believe those rules for us
11 prior to the 2010 date were our policy, that was the RPS
12 policy adopted by our Board that was allowed by the law at
13 the time. And we do not believe it was the CEC Guidebook
14 that was in place at the time. Those were two distinct
15 efforts. And we were not a participant in that effort.
16 So we didn't make comments to the guidelines at the time
17 and say, you know, our facilities should fit. You should
18 amend your guidelines. We didn't do that process. So to
19 go back now, we don't think the statute intended on doing
20 a retro view of our previous and historic activities.

21 CHAIRPERSON WEISENMILLER: Could you wrap up?

22 MR. HOWARD: Yes.

23 There's some concerns because they're an existing
24 facility. So under the limited certification process,
25 there are some issues. And we have raised these as well

1 where any contract amendments or modifications occurring
2 after the June 1st, 2010, should not increase the name
3 plate capacity or expected quantities of generation. When
4 we're talking 20-30 year contracts for facilities or
5 ownerships that are under this limited, as technology
6 fails or we have equipment replacement or maintenance that
7 occurs, typically you're replacing it with what's the best
8 at the time. And that could change the capacity output.
9 That could change the annual production. We've had some
10 wind turbine blades on our wind farm that have failed. We
11 replaced them with new blades. Those blades produce more
12 wind now at lower speeds. It's a new technology. We
13 don't think it should be intended here that having those
14 types of activities should exclude the accounting of those
15 for the purposes of RPS going forward.

16 And we have one other issue and that's really
17 that we want to raise. We had a number of small solar
18 facilities installed under SB 1. LADWP offered additional
19 money to buy those RECs at the time of the installations.
20 We've had a program since the year 2000, so a little over
21 twelve years in place. There is a set quantity. Those
22 installations weren't installed with this metering
23 requirement. The metering requirement is to the plus or
24 minus two percent. We do believe those should be counted
25 in full. We don't think we should be required to go back

1 and replace meters.

2 Obviously, the solar systems installed on the
3 customer side of meters were incentivized at the time and
4 that metering is another incentive to take our customer
5 funds and go back out, put additional meters in. It's a
6 diminimous number. We think that the CEC and the staff
7 should consider accepting the provisions. WREGIS is
8 willing to do so. To count those going forward without
9 going back and installing new meters at a cost to the
10 balance of our rate payer.

11 So I'll stop there and answer any questions you
12 might have.

13 CHAIRPERSON WEISENMILLER: Thanks.

14 James Henry.

15 MR. HENDRY: Good afternoon. I'm James Hendry
16 representing the San Francisco Public Utilities
17 Commission.

18 I basically just put in the card as a placeholder
19 in order to be able to respond to the presentation of
20 staff. And having reviewed it, we're very pleased with
21 the results. We're very pleased with the efforts of Gabe,
22 Kate, and Commissioner Peterman to listen to and reflects
23 many of our concerns in the revised draft book, as well as
24 recognizing several issues on the going forward basis.
25 And we realize it may rise to the level of substantive

1 issues that may need to have further review and comment.
2 We look forward to working with staff to get these issues
3 resolved. Thank you.

4 CHAIRPERSON WEISENMILLER: Thank you.

5 Tim Tutt.

6 MR. TUTT: Good afternoon, Commissioners.

7 Welcome and congratulations to Commissioner McAllister.

8 COMMISSIONER MC ALLISTER: Thank you.

9 MR. TUTT: Thank you staff for all the hard work
10 on the guidebook all this time. And they keep passing
11 laws over at the Legislature and you keep having to revise
12 it. It's unfortunate, I know.

13 I wanted to just raise a couple of issues with
14 you.

15 First, Commissioner Peterman, my CEO sent you a
16 letter regarding expediting the discussion about the
17 biomethane suspension. So I just wanted to encourage
18 action on that front because things are happening in the
19 market and being constrained in the market as people are
20 uncertain how that's going on, what's going on there. And
21 I'm raising it here in part because we have one biogas
22 contract which is kind of in between what's in the
23 guidebook. The guidebook says you can use biogas by
24 delivering it by tank or by dedicated pipeline or
25 biomethane. And dedicated pipeline is defined in the

1 guidebook as not mixing with natural gas in the pipeline.
2 Well, we're using biogas, but it mixes into our dedicated
3 pipeline with natural gas. So we're just asking for some
4 clarification one way or the other as to how that works.
5 And we can work with staff on for the next addition of the
6 guidebook.

7 And then I wanted to also raise the issue that
8 others have raised about the distributed generation and
9 the need for two percent plus or minus accurate metering.
10 I think that you don't -- you should reconsider that
11 issue. We're talking about a variety of smaller systems
12 here, which typically have been installed with meters that
13 are accurate enough for owners to know there is solar
14 generation, accurate enough to be providing incentives in
15 a variety of ways.

16 When you aggregate all of these meters into an
17 aggregated unit in WREGIS, you're going to be taking the
18 plus or minus five percent accuracy meters and turning it
19 into effectively a plus or minus two percent unit. I'm
20 sure somebody could do a Monte Carlo simulation and
21 understand how all those inaccuracies will, in effect,
22 play against each other and turn it into a fairly accurate
23 unit in WREGIS. I don't think you need to go to the cost
24 and expense of requiring those additional meters for
25 distributed generation.

1 And I would also say that the Governor has set
2 the State on a goal of achieving 12,000 megawatts of
3 distributed generation. And to the extent that as you and
4 the PUC implement the rules for the RPS and changes to the
5 renewable guidebook, we're talking about bringing
6 distributed generation into the state and requiring
7 additional costs at this point. It's just a barrier that
8 acts against that general interest. So it's something you
9 should consider not doing and changing as we move forward
10 on this.

11 Thank you.

12 CHAIRPERSON WEISENMILLER: Thank you.

13 Manuel Alvarez.

14 MR. ALVAREZ: Good afternoon, Commissioners.

15 Manuel Alvarez of Souther California Edison. We
16 just had a couple of minor comments. And I think for the
17 most part what I heard today took care of those. So I
18 don't really have anything to highlight for you at this
19 point. Just to ask for your approval. We do support the
20 guidelines as proposed. So with that, we'd like to see
21 them go forward.

22 But I want to bring up one issue I guess as I
23 reviewed the comments with the various folks and it's
24 something that you heard from us before. We definitely
25 are interested in consistency across the board in terms of

1 eligibility for renewables and compliance and reporting
2 and et cetera. So we want to make sure that whatever
3 rules are established are established across the board for
4 everybody to play. If we are all going to play with 90
5 foot basis, that's what we should all do. That's the only
6 comments I have.

7 CHAIRPERSON WEISENMILLER: Thank you.

8 Valerie Winn.

9 MS. WINN: Valerie Winn with PG&E.

10 One of our -- we wanted to thank actually staff
11 as well for all of their work on this and all the work
12 they're going to be doing on this as we continue to
13 implement the ever-changing RPS requirements.

14 One of the challenges though as we look at
15 implementing these requirements is for large utilities
16 scale generators, many of these issues and requirements
17 make sense for registering in WREGIS. But for our smaller
18 residential customers -- and I think you've been hearing
19 this -- requiring the revenue quality meter with a high
20 level of precision really seems to go a little bit too
21 far. And we suggested to staff some alternative ways we
22 might want to look at allowing customer generators, small
23 customer generators, to be participating in the RPS
24 program where they're not now.

25 Of course CSI, those customer's RECs don't count

1 towards RPS now. And we'd love to find a way for those
2 customers to be able to participate, but in a cost
3 effective way for them.

4 I did want to echo Mr. Alvarez's comments about
5 having a level playing field for everyone who needs to
6 comply with the RPS. That's been a very important
7 principle for us from day one, that everyone who has to
8 comply with the program should be playing by the same
9 rules. Helps create certainty in reporting, where we are
10 as a state, and we think that's very important.

11 Lastly, Commissioner Peterman had asked us to
12 comment on Steve Kelly's question is a workshop necessary.
13 We would be supportive of that idea. In numerous bidders'
14 conferences we've had for RPS, there are always questions
15 about contract structures. What is this? What is this?
16 And we can all come up with different interpretations
17 internally. So it probably would be helpful for everyone
18 to be in the same room.

19 And with that, we do support the adoption of the
20 guideline proposals today. Thank you.

21 CHAIRPERSON WEISENMILLER: Thank you.

22 Mr. Alvarez.

23 MR. ALVAREZ: I had forgotten Commissioner
24 Peterman's question. I guess I support what Valerie had
25 talked about, what I heard from Steve Kelly this morning

1 or earlier the afternoon, I don't see any problem with
2 having that meeting. Always a question of resources and
3 folks. So that's just something I have to clear down in
4 southern California with people.

5 But other than that, I think the workshop idea
6 that Kelly presented is a good suggestion.

7 CHAIRPERSON WEISENMILLER: Thank you.

8 Michael Hagman.

9 MR. HAGMAN: Michael Hagman with the Lindmore
10 Irrigation District. And we're a member of the Friant
11 Power Authority -- Joint Powers Authority formed in the
12 late '70s, early '80s to develop power off the Friant Dam.
13 We have three power plants at the dam. Two that release
14 to conveyance facilities, the Friant-Kern Canal power
15 plant and one in the north in the Madera-Chowchilla Canal.
16 We also have one at the toe of the damn.

17 We came into a policy impasse with staff on an
18 issue of the main plate size, 130 megawatts. We're
19 attempting to go back up one step. The federal government
20 implemented is implementing San Joaquin Restoration
21 Program, which will essentially move 200,000 acre feet
22 from the two canal plants down to the -- and release to
23 the river. We'd like to take advantage of that energy and
24 capture that. That, in total, once we develop the plant,
25 will be about 32 megawatts on the main plate.

1 Staff was concerned that exceeded the 30
2 megawatts and was within a one-mile radius. We look at
3 them as three separate plants, because there are two
4 conveyance facilities and then into the river.

5 We worked with Commissioner Peterman. We
6 appreciate her help and her guidance and leadership on the
7 issue, and with Ms. Zocchetti. We appreciate their help.
8 We feel that the guidelines were revised sufficient to
9 meet our needs for the plants. We can go forward with
10 development of our additional plant to take advantage of
11 that 200,000 acre feet. Thank you for your time.

12 CHAIRPERSON WEISENMILLER: Thank you.

13 Blair Swezey.

14 MS. SWEZEY: Good afternoon, Commissioners.

15 Blair Swezey with SunPower Corporation.

16 And I'm also here to speak to the proposed two
17 percent accuracy requirement for small scale on site for
18 reporting eligible generation from small scale on-site
19 renewable generation or so-called revenue grade meters.
20 We feel that this requirement is both overly restrictive
21 and unnecessary, as has also been argued by a number of
22 parties both here today orally, but also in their written
23 comments over the last few months, including you heard
24 from PG&E this afternoon, SMUD, LADWP, the city of
25 San Francisco, and the Solar Alliance.

1 As a company, we strive to provide solar to
2 customers at the lowest possible cost. And the five
3 percent standard was intended to be easier and cheaper to
4 meet than revenue -- the use of revenue grade meters and
5 this remains the case today.

6 Installation of revenue grade meters opposes
7 additional cost in three primary areas. First is the cost
8 of the additional hardware. The revenue grade meters
9 adds \$300 to the cost of each installation. Also adds to
10 the cost and complexity of the installation. Revenue
11 grade meter requires access to the main AC distribution
12 panel in the house. Therefore, only a certified
13 electrician can complete this installation, as opposed to
14 trained technicians which adds labor costs to the
15 installation.

16 And finally, additional materials, installing
17 revenue grade meter requires additional conduit and wires
18 to run between the mains and the location of the inverter
19 data logger.

20 So in sum, a revenue grade meter adds unnecessary
21 cost and complexity to every PV installation without
22 providing a commensurate benefit from greater accuracy.

23 All solar installations have access to
24 revenue-grade net usage data from the utility meter that
25 is used for true up purposes. So we feel that an

1 additional revenue grade production meter is simply
2 redundant.

3 And furthermore, the two percent metering
4 requirement would also exclude substantial amounts of
5 solar PV already installed through the CSI program, most
6 of which uses non-revenue quality meters.

7 So my suggestion, the city of San Francisco in
8 their last round of comments proposed language to address
9 this issue, which we respectfully ask you to consider.
10 And it relies essentially on a size threshold above which
11 the two percent revenue grade metering could be required
12 and below which the use of non-revenue quality meters or
13 engineering estimates could be relied upon.

14 Ms. Zocchetti earlier mentioned a size threshold
15 of 20 kilowatts. I know the Solar Alliance in their
16 comments last fall suggested 30 kilowatts. And we'd be
17 fine with either one of those as a size threshold.

18 Thank you.

19 CHAIRPERSON WEISENMILLER: Thank you. We can now
20 turn to parties on the phone.

21 Norm Furuta.

22 MR. FURUTA: Commissioner Douglas yesterday had
23 meetings with the DOD in Sacramento, and I hope to meet
24 Commissioners Peterman and McAllister very soon as well.

25 Just wanted to briefly mention that in our review

1 of the draft guidebooks there may be issues we'd need to
2 discuss with staff at CEC as well as with the State PUC
3 and perhaps with WREGIS officials to address the issue
4 that the federal agencies currently don't have statutory
5 authority to sell or transfer renewable energy credits
6 that may result from on-site generation on federal
7 installations and Navy and military bases within the
8 state.

9 And we would like to see if there were some way
10 where we could utilize those credits in meeting the RPS
11 obligations of our direct access energy suppliers to those
12 military bases. But we think there's probably still work
13 to be done, and we will attempt to discuss this with your
14 staff as well as with the PUC, and we hope in the very
15 near future.

16 But in the mean time, we are supportive of the
17 adoption of the draft guidebooks that you're considering
18 today.

19 CHAIRPERSON WEISENMILLER: Thank you.

20 We'll acknowledge the letter that Secretary
21 Pfannensteil sent to President Petty (phonetic) on a
22 number of issues. And certainly we look forward to
23 working with Navy Marines on this issue in general as a
24 subset of that.

25 MR. FURUTA: Yes. Thank you.

1 CHAIRPERSON WEISENMILLER: Next party on the
2 line, Jeremy Weinstein from Pacific Corp.

3 MR. WEINSTEIN: My name is Jeremy Weinstein here
4 representing Pacific Corp.

5 Thank you very much for the opportunity to speak.
6 I just had a few items to talk about.

7 The first is to compliment the staff on a good
8 job well done. An awful lot of hard work that goes into
9 this manual. And the Commission is I think very fortunate
10 to have such an excellent dedicated staff that really
11 understand what they're doing and doing a great job
12 communicating to people they regulate what needs to happen
13 in order to comply. I just think the attitude and the
14 ethic and the ethos of the Commission staff is just
15 terrific and really what one would hope to get from a
16 regulator.

17 On the manual itself, I just have a few comments.
18 I think they are minor. The first is footnote 11.
19 Footnote 11 I think creates -- provides a legal dictionary
20 definition of diminimus. And I believe that that's an --
21 contradicts the statute and the contradicts the guidebook.
22 And I think the guidebook defines what diminimus is. And
23 to say this other definition diminimus doesn't add to the
24 book, so I recommend deleting it.

25 And then the only other comment I've got is on

1 page 112 of the Guidebook, the third paragraph is the full
2 paragraph, the third paragraph, paragraph beginning the
3 CPUC RECs decision, I think -- we recommend that the
4 wording be rephrased because the wording of the sentence
5 creates the impression the CEC certified TRECs. And
6 actually, the CEC does not certify TRECs. The CEC just
7 certifies resource that could be created with RECs. So to
8 avoid confusion or avoid people who would seek to use the
9 manual to try to understand their compliance obligation
10 and they are just recommending having anything in there
11 that could create the confusion. And the sentence says
12 that the CEC certifies does.

13 So thank you very much for the opportunity to
14 speak.

15 CHAIRPERSON WEISENMILLER: Thank you.

16 Kurt Grossman.

17 MR. GROSSMAN: Hello. And thank you for allowing
18 me to speak. This is Kurt Grossman with G-Energy. I have
19 just a couple of comments and want to thank the staff and
20 the Commissioners for moving through the pre-certification
21 appeal process.

22 I would highly recommend that no additional
23 conditions be added to make it more difficult. I felt it
24 was a very challenging process. Did come out the way we
25 had hoped. And hopefully people in the future will not

1 have to go through the same type of process.

2 And furthermore, there is a new verbiage that was
3 added in a recent program guidebook that says non-marine
4 water having to do with small hydroelectric, I would ask
5 that that provision or those words "non-marine" be
6 stricken. We have a technology that uses hydropower in
7 the marine setting. We have been pre-certified and have
8 some help. But I don't see any reason that that should be
9 added as a restriction.

10 In general, I would hope that in this book and in
11 every book in the future that innovation, encouragement,
12 and ways to motivate people to explore new ideas and new
13 inventions are added rather than imposing restrictions
14 without some serious consideration from scientific and
15 other experts. Specifically, in this case, environmental
16 experts who would come up with some valid reason as to why
17 some additional restriction would be added. We feel that
18 the purpose of the Energy Commission is -- specifically
19 the Renewable Energy Division is to move us away from
20 fossil fuels and to clean our environment, to protect the
21 natural resources that are such a big part of the state of
22 California.

23 And as far as the RPS guidelines go to achieve
24 those goals, we are very, very supportive of that. But
25 anything that goes overboard and then discourages

1 financial or other investment into renewable is
2 counterprotective and against the mission of the RPS and
3 the Energy Commission.

4 Thank you, Commissioners and staff. And thank
5 you for allowing me to make those comments.

6 CHAIRPERSON WEISENMILLER: Thank you. I believe
7 we've gotten all public comment. So at this stage --

8 COMMISSIONER PETERMAN: I wouldn't mind asking
9 staff a few questions. First offering some broad comments
10 on this guidebook and then asking specific questions. I
11 have just a couple things.

12 One, regarding the last call, the response of the
13 inclusion of the term non-marine. And I have some
14 questions related to the requirement of the revenue grade
15 meters. And also want to make some comments about the
16 changes to the appeals processes in the guidebook. And my
17 fellow Commissioners may have other topics they wish to
18 discuss as well.

19 I want to first say regarding the guidebook,
20 thank you very much to staff and also stakeholders for
21 continuing to work on this. This guidebook was in draft
22 before I started on the Commission last March. And so it
23 is a pleasure to see it come to the business meeting
24 today.

25 As you all are aware, there are a number of items

1 that are already cued up for the next round of guidebook
2 revisions. So the work will not stop. As Mr. Kelly said,
3 in many ways, it is a living document.

4 Thank you also very much to stakeholders and
5 particularly the market participants, the generators, and
6 the utilities for their patience also with this guidebook
7 coming out. I know it was later than many imagined or
8 would have wanted. As you get a sense from this meeting,
9 there were a number of issues we were working through.

10 I think it's a testament -- staff has had a
11 number of meetings with affected parties over the last few
12 months and worked through a number of the issues that
13 originally were raised after the draft. And I think not
14 having more comments than we did today is a testament to
15 how many issues were worked out previously before coming
16 to the meeting. So I'm very appreciative of that.

17 I'll say at a high level, I'm very supportive of
18 the adoption of this guidebook, the errata, as well as the
19 proposed more substantive changes staff has recommended
20 for adoption at future business meetings.

21 I think there are a number of positive aspects to
22 this guidebook that addresses new laws effecting the RPS,
23 including SB X1-2, AB 920, and AB 954 addresses RPS
24 targets, allows for the eligibility of distributed RECs
25 for the RPS for the first time, makes the necessary

1 adjustments to the hydroelectric and repower facility
2 definitions, as well as providing a grace period for
3 public utilities for applying for re-certification. In
4 addition, there have been a number of steps taken to try
5 to clarify the process for considering serving CEC
6 actions.

7 I would say this guidebook is a complement to the
8 RPS regulations that the CEC is developing. And this
9 guidebook, as I think was mentioned earlier, will be
10 revised again after those regulations are complete.

11 I appreciated the request made for some type of a
12 more definitive schedule about when that next guidebook
13 revision would occur. I think the timing suggested early
14 next year is reasonable. However, I'm not going to commit
15 to making a firm timetable because we wanted to allow
16 flexibility in the time in order to address real concerns.
17 And even with the RPS regulations we're currently
18 drafting, we've gotten comments as far as for additional
19 workshop, another round of comments. And we wanted to be
20 able to be receptive to stakeholders' needs for that and
21 for that public process.

22 There were a couple comments made about what
23 guidelines are appropriate when considering generation
24 prior to SB X1-2. I think we're on solid legal ground
25 that is the Energy Commission's guidelines that are

1 appropriate. I appreciate that some parties disagree and
2 we'll continue to have those discussions. But I'm
3 supportive of that interpretation that the Commission has
4 taken.

5 So let me turn now to some specific issues that
6 were raised.

7 First, I'd like to ask staff just to comment on
8 the change to the hydroelectric definition to include the
9 term "non-marine."

10 MS. ZOCCHETTI: This is Kate Zocchetti.

11 Thank you, Commissioner Peterman, for your
12 remarks.

13 In the previous guidebook -- that would be the
14 current guidebook, the fourth edition, was revised a year
15 ago -- more than a year ago to add the term "marine" to
16 the definition of hydroelectric because we recognized that
17 it needed to be clarified. Sometimes we don't know things
18 need to be clarified until we learn that there might be
19 confusion about what we mean by a term or a phrase. And
20 based on particularly -- a number of reasons, but
21 particularly based on the requirements in the guidebook
22 for demonstration of eligibility that clearly refer to
23 streams and waterways as opposed to marine environment.

24 For example, the source of the water description,
25 water rights, hydrological data, efficiency improvements,

1 incremental hydro generation, and permits from clean
2 water -- sorry -- from the State Water Resources Control
3 Board all which point to freshwater environments. And I
4 think it's the industry -- I think we didn't realize in
5 the past it seemed to be that we all knew what hydro
6 meant. That it was water running in a natural stream or
7 the law has established for a conduit as well. But it's
8 all water that's moving with gravity in a natural
9 environment. So that's why we added the word "marine."

10 I think Gabe has something to add.

11 MR. HERRERA: Good afternoon, Commissioner. Gabe
12 Herrera with the Energy Commission Legal Office.

13 There's another point that Kate didn't touch on.
14 And that's several years -- I think it was 2005 the
15 Legislature changed the law with respect to RPS
16 eligibility to draw new lines in terms of certifying new
17 hydro facilities after a certain date. And with that
18 change in the law came new requirements, specifically that
19 for a new hydroelectric facility, that's one that
20 commences generation after December 31st, 2005, that that
21 facility should not be certified as an eligible renewable
22 energy resource. It cause an adverse impact on the
23 in-stream beneficial uses or cause a change in the volume
24 or timing of stream flow.

25 This gets to Kate's point in terms of the

1 Legislature appeared to establish new rules with respect
2 to hydro that appeared to limit its application to natural
3 occurring streams, not in a marine environment. So
4 engineering staff felt justified to further clarify the
5 definition to give meaning to this particular requirement,
6 hence the change to non-marine.

7 COMMISSIONER PETERMAN: Do my fellow
8 Commissioners have any questions on that particular topic?

9 Okay. Thank you.

10 We had a number of parties comment today on the
11 requirement for revenue-grade meters for distributed
12 generation. I'd like to ask staff to comment on the
13 rationale for a requirement of revenue-grade meters.

14 MR. KOOSTRA: We require revenue-grade meters for
15 a number of reasons. We are a performance-based program.
16 We measure actual generation, and we didn't see a need to
17 treat a facility differently based on its size. Hence, we
18 wanted to keep the requirements the same across the board.
19 Additionally, the plus or minus five percent meters, to
20 the best staff is aware, are not independently verified.
21 They're manufacturer verified. Until recently, I think
22 that's been the case for all of them and I think it's
23 still been the case.

24 This means while you aggregate, you may generally
25 get to the same percentage, you could still run into the

1 problem where the manufacturer verified it's plus or minus
2 five percent, but there's around 110 percent, instead of
3 around 100 percent. And we don't have any information on
4 that. And even if those meters are verified independently
5 going forward, that's great. But in the past, all those
6 meters that are currently installed do not meet the same
7 accuracy requirements, nor independent verification.

8 COMMISSIONER PETERMAN: Thank you.

9 MS. ZOCCHETTI: Could I add one more point? And
10 that is that the caller was correct that WREGIS does allow
11 that. However, it's not the standard. WREGIS does
12 require a two percent plus or minus accuracy with a
13 provision if a State program authorized the use of a five
14 percent meter it could do so. And we have not chosen to
15 do that. So I wanted to make that clarification regarding
16 WREGIS.

17 COMMISSIONER PETERMAN: Thank you.

18 I appreciate everyone who's commented on this
19 issue. And this is a challenging one, because appreciate
20 there have been significant investments made in DG prior
21 to this guidebook and this inclusion of DG to the RPS.
22 And we don't want to waste those investments.

23 And I believe that staff has been talking to the
24 various parties over the last year considering this issue
25 to see if there is a good way for -- because ultimately

1 although money has been invested, this program has to make
2 sure that it maintains the intent and the integrity of the
3 RPS and that we are accurately measuring the generation
4 that counts towards the RPS. And the requirement for
5 revenue-grade meters I believe is appropriate because
6 these facilities will now be receiving revenue. And if
7 there is a way to use the existing meters to get the same
8 accuracy that we would with these revenue-grade meters,
9 I'm hoping to hear about that again.

10 I would recommend that if the parties have any
11 additional information staff has not considered that they
12 bring that forward. We will be taking up a couple of
13 other items that was mentioned at the next business
14 meeting. And so if there is anything additional that can
15 be provided here that would be useful, I would be
16 supportive of considering that and considering such a
17 change at the next meeting.

18 However, for now, I'm recommending that we still
19 go forward and adopt the rules as they are. But if staff
20 has anything additional on this they wish to add,
21 appreciate hearing it. And I think it is a challenge.
22 But we're trying to build the system in a way so DG can
23 participate long term. This is the groundwork that needs
24 to be done in terms of having all the facilities, whatever
25 size, both be revenue grade.

1 Although uncustomary, Randy Howard is really
2 excited to a something, so come back up here. And if we
3 can get this work done now, let's do it.

4 MR. HOWARD: I'm sorry. And I just wanted to
5 provide some clarification. I think we have indicated to
6 staff and all that at least from the majority of the POU's
7 we are all agreeable going forward and we've started
8 installing everything to that level of meter accuracy.
9 What we're talking about is just those meters that were
10 historically. For LADWP, we are the third largest utility
11 in the state. I think we're talking 20 megawatts or less.
12 We are not talking large numbers. But the effort the cost
13 impacts really take away from us going forward. And so
14 that's -- again I think the comments were made and they
15 are accurate. If you took the aggregated plus or minus
16 five percent, give and take, you're probably still at a
17 two percent on an aggregated basis. We would ask your
18 consideration. But going forward we're fine on the plus
19 or minus two percent.

20 COMMISSIONER PETERMAN: I think we have others
21 who have questions or comments.

22 COMMISSIONER MC ALLISTER: Just a couple many
23 things. Actually, I have a lot of experience with this
24 topic and was party to the discussions that happened at
25 the beginning of this CSI program over at the PUC where

1 the accuracy of the metering was a huge topic that lots of
2 stakeholders got involved in and ended up being the five
3 percent for mostly for cost cap reasons.

4 So if you have not looked at that record over
5 there, I would suggest that you do that because there was
6 a lot of technical information that came in about the
7 meters that were specifically on the systems. And
8 actually, there was a cost cap exemption and all sorts of
9 things came out of that.

10 And technology is always moving. And so, you
11 know, what yesterday was expensive is now less expensive.
12 I kind of was intrigued by Tim Tutt's suggestion that
13 statistical analysis could decrease the overall error 120
14 aggregate. That's actually true. But the question you
15 brought up is there a systemic bias. Is there around 100
16 percent or around some other number, so you're actually
17 systematically over-paying or under-paying. So I think
18 that's a real issue and hopefully some information that
19 can help resolve that.

20 You know, LADWP may have 20 megawatts. The whole
21 state has 1.2 gigawatts or something like that, a lot of
22 distributed solar that is in that metering. So it's
23 not -- overall, it's not a trivial number. I would point
24 out though that the AB 920 issue is probably solvable
25 because that's a net surplus, and that net surplus is

1 produced by a revenue grade meter. So that overall --
2 that excess, which will be not that much energy overall,
3 is probably dealable separately from other types of
4 systems.

5 So I definitely would prefer to go down a path
6 that allows grandfathering of existing systems in and some
7 kind of aggregation to go on. There are a lot of people
8 waiting chomping at the bit to aggregate third-party
9 owners of lots of systems are waiting to aggregate their
10 generation and hopefully finding a market for it and
11 selling the RECs and all that. It would be a shame for
12 those foreign investments -- even though they knew they
13 were taking a risk, it would be a shame to build it into
14 the system.

15 COMMISSIONER DOUGLAS: Commissioner McAllister's
16 comments are much more detailed than anything I was
17 prepared to offer, but very helpful. So thank you.

18 I just wanted to make a high level comment that I
19 understand and support Commissioner Peterman's desire to
20 move forward on this item as written, but I also really do
21 hope that you look at this issue and if there is a way to
22 revise it in a way that we have some reasonable confidence
23 in the numbers that is something I would be very open to.
24 It's a real balance between, as I think Kate said -- or
25 maybe it wasn't Kate, but it's a performance-based

1 program. We like to be able to measure that for which
2 credit is given. And it's troubling in some ways to not
3 have the accuracy or potentially not have the accuracy for
4 some of these systems that were installed in the past. At
5 the same time, of course, that doesn't mean that we
6 necessarily want to penalize those systems. So I think
7 it's -- I understand it's a challenging issue.

8 CHAIRPERSON WEISENMILLER: I was just going to
9 get on to -- again I certainly support Commissioner
10 Peterman on this.

11 Having said that though in really emphasizing at
12 this point sort of education process deals with hundreds
13 of projects. There are probably at least 70,000 DG
14 systems in California. So if it is not aggregated, we
15 would never ever be able to deal with the quantity of
16 data. So again we have to be looking not at 70,000
17 systems or 100,000 systems in a couple years or 150,000,
18 but more in some way of aggregating it so we're dealing
19 more with tons and hundreds but not that scale.

20 Otherwise, the whole system would have a meltdown.

21 COMMISSIONER MC ALLISTER: I want to make clear I
22 support going forward with that as well and support
23 Commissioner Peterman on this as well. And I think
24 there's still some thinking to be done about this in the
25 future. And since this is a living breathing document, we

1 have an opportunity to do that, which is excellent.

2 COMMISSIONER PETERMAN: Let me say, first of all,
3 I appreciate the dialogue we're having and the comments
4 from my fellow commissioners. Due the a mix of
5 retirements and new appointments and Bagley-Keene
6 restrictions on who I can speak to, this is the first time
7 I've been able to talk about this issue with my
8 colleagues. And I encourage us to do more of this at the
9 dais because I think it's very helpful. And of course, we
10 never take any perhaps suggested alternative change and
11 approach to be lack of support of me personally. So but
12 thank you for being kind with that.

13 I think you've all made, first of all, some very
14 good points. I will say, number one, I appreciate hearing
15 that there has been a commitment to installations going
16 forward to have revenue-grade meters. Considering the
17 discussion we've had up here just now as well as what
18 we've heard from parties and again as I talked about in
19 the beginning, this is a challenge. It's about
20 trade-offs.

21 And so I would support the following staff has
22 already identified four items with intention to consider
23 changes for the next business meeting. I would recommend
24 adding a fifth item, Item D, to be consideration of
25 grandfathering the existing meters or something like that,

1 but I'm not prepared to say exactly what would be
2 considered until we address some of the points that have
3 been raised both by my fellow Commissioners and revisit
4 the research we've done into this already.

5 Again, this document has been in development for
6 over a year. There may be some additional information
7 that we have yet to consider. Specifically, I would like
8 to have a sense about what the total capacity would be
9 considered here and so we can make sure that going forward
10 at least and even now the majority of the generation is as
11 accurately measured as possible.

12 So that's my suggestion. Do my fellow
13 Commissioners have any alternative suggestions to that?

14 COMMISSIONER DOUGLAS: I think it's a great
15 suggestion.

16 COMMISSIONER MC ALLISTER: I agree. Do you want
17 a motion?

18 COMMISSIONER PETERMAN: No need. We're not even
19 at that point yet. We're just having suggestion. I'm
20 figuring if there's else anything additional we have a
21 motion on. That's my recommendation. And because it's a
22 suggestion for staff to do something, it doesn't even have
23 to be voted on, so much as you heard me say it in public,
24 so we'll definitely have to do it.

25 So with that, do you fellow Commissioners have

1 any other comments on this issue?

2 COMMISSIONER DOUGLAS: Not on this issue.

3 COMMISSIONER PETERMAN: Okay. Then let me turn
4 to another issue, if you don't mind.

5 In the process of getting comments on this
6 guidebook, we had some comments raised about changes to
7 our public participation and appeals process. And I want
8 to say, number one, that I appreciate the communication
9 and suggestions and involvement that our public advisor
10 and her office have had on this issue.

11 The appeals process, as noted by Mr. Grossman on
12 the phone, can be complicated to participate in, as is
13 anything within an agency or dealing with these issues.
14 It's not a process that has been so far used very often.
15 I believe it's been used once -- if once, maybe a little
16 bit more than. Staff can comment. So it's not a process
17 that we have tremendous experience in. So I appreciate
18 everyone's feedback about how that process works.

19 But when the Commission moved away from a
20 Committee system, we then had to revisit the appeals
21 process. And as a public member, I have concerns with how
22 we allow the public to participate in our processes and
23 programs. And when decisions do not go the way of a
24 particular participant, that member of a public deserves a
25 simple, user-friendly, and transparent process to getting

1 their concerns addressed by staff or as Commissioners.

2 Now, I believe the approach in the guidebook,
3 staff's approach, overall achieves these principles. This
4 approach provides participants in our program with an
5 opportunity to ascend their appeals requests to the
6 Executive Director and each Commissioner. The approach
7 recommended in the guidebook utilizes a process that the
8 Commission already has. And this process may not be right
9 for every situation, which we want to do in appeal. I
10 think there could be a better process for the RPS program.
11 And I'm a supportive of staff and the Commission examining
12 that going forward in trying to define a better process.

13 Until that point though, I'm supportive of this
14 process because it will be consistent across the Energy
15 Commission in terms of how we deal with these issues, as
16 well as it's clearly set out in the regulations. We want
17 to avoid something that is going to be one off. And so
18 considering the comments that we've heard, I'm supportive
19 of the concerns but still believe, all things considered
20 that, this is the best approach going forward. And my
21 fellow Commissioners might have some other thoughts about
22 the changes to the appeal process.

23 I also note one more things before we have
24 additional comment.

25 Sorry, Commissioner Douglas.

1 THE since first draft of the guidebook to this
2 one, we have made some changes to that section in terms of
3 allowing more time for parties to file the necessary
4 documents accordingly. So trying to be as receptive as we
5 can to the need to make that process easier to utilize and
6 I encourage anyone who would need to use that process to
7 work with the public advisor. Going forward, I appreciate
8 additional comments and something to visit again in the
9 next guidebook.

10 COMMISSIONER DOUGLAS: You know, I have not
11 engaged mentally in the question of how this would work as
12 reasonably as I probably should have. As I look at it, I
13 think first of all, it's essential that we do something
14 here because the current process that's in the existing
15 guidebook is clearly not clearly defined. Clearly refers
16 to committees that don't exist and so on. Therefore, it
17 needs to change.

18 And, of course, Commissioner Peterman and I have
19 a reasonable amount of experience with the compliance
20 process, since she's been on the CalcERTS Committee. So
21 she's been on a Committee through this process. There
22 have been a number of committees established through this
23 process. And I think that there are a number of ways that
24 that process can and should be improved.

25 One of the things that I really want to focus on

1 now is sitting down with staff and the public advisor and
2 legal and really talking about how it can be improved.
3 The lingering concern that I have as I look at it is
4 really one of administrative efficiency. I think that
5 there are matters that make sense to go through the
6 complaint process, but the complaint process that we have
7 is a very adjudicative and very workload-heavy process on
8 both the Commission and on the other parties.

9 And so what happens is the Chair gets a petition
10 and the Chair has to decide to dismiss it or serve it.
11 Our practice has been quite consistently to serve it and
12 then you have a Committee. And of course, this has
13 happened earlier today -- a Committee that can take that
14 and sit down and at some point make a decision if the
15 Chair is not satisfied, make a decision to reserve it.
16 Once you serve it, you're into a time line of scheduled
17 hearings and responses and information.

18 As I read that section, it's very clear to me
19 that it's an adjudicative section. It's very clear to me
20 it's about fact-based inquiry and evidence. And I think
21 that -- I don't know as much as I probably could or should
22 about the types of matters that people might bring a
23 complaint on or people feel aggrieved on and the extent to
24 which those are appropriately handled in an adjudicative
25 process versus -- with fact-based inquiry versus an appeal

1 on policy or legal interpretation grounds. That's the
2 issue that I wish I had spent more time thinking about.

3 CHAIRPERSON WEISENMILLER: Again, we've all been
4 involved in the complaint process, some of this nature and
5 some of which in more a slightly different context. As
6 you noted, there's a very short fuse on responding. That
7 part of the regulation is fairly obscure between
8 complaints, investigations, and what the remedies are.
9 And it certainly needs some work.

10 Having said that, there is a real call -- as we
11 heard this morning and we certainly heard with other
12 things -- that if something comes in and there's not --
13 really want to make sure there's some degree of a filter
14 there because there is a real cost, not only to us, but to
15 the other side. And a lot of people don't understand at
16 least in a more formal complaint case, they really have
17 the burden of proof. So it's not a mechanism that's
18 designed where people can toss something in and suddenly
19 we have a huge staff investigation and a real burden of
20 proof to demonstrate. There is a basis for that.

21 But the way the process is now set up certainly
22 has such a short time fuse that it's just not a
23 particularly good process.

24 But again, I think many of the decisions we deal
25 with here have real human consequences and have really

1 substantial cost. So there should really be some filter
2 on that before we inflict those on the other side.

3 So having said that, I certainly would encourage
4 you to work with the chief counsel and perhaps part of
5 lessons learned and try to figure out if there is some way
6 to just on general on our complaint investigation, that
7 whole section of our regulations, if we could make those
8 more coherent.

9 COMMISSIONER PETERMAN: I think I see that
10 Commissioner McAllister wants to say something. I'll
11 certainly let him in just a moment.

12 But you know, I think that the question that I'm
13 encountering is you're exactly right that the complaints
14 process has a real cost, both on the Commission and on the
15 parties in terms of time, in terms of the need to respond,
16 in terms of the schedule.

17 And what I think I would like to do is talk to
18 the Chief Counsel and Gabe and others and just -- I think
19 we should move forward with this because I think that we
20 need to -- it's certainly miles and miles and miles better
21 than what's currently written in the guidebook just by
22 virtue of it being applicable to an existing process at
23 the Energy Commission.

24 And furthermore, it reflects a very commendable
25 interest in consolidating our processes so that we don't

1 have idiosyncratic processes per program that confuse
2 people. Because if you're in the renewable program, you
3 approach us this way. If you're in the siting program,
4 you approach us that way, and so on. I think those are
5 commendable.

6 And the issue that I'm having difficulty with is
7 just that it's a lot of work to put people through if what
8 they really want to do is stand up and say, "Commission,
9 your guidelines have been one way and your staff
10 interpreted them wrong. And what I want to do is stand up
11 and argue, you know, large hydro qualifies." And of
12 course we could throw -- we could just dismiss something
13 like that. But at the same time, there's just a maybe
14 subset of issues to which the adjudicative process is
15 overkill. So that's what I wanted to sort of work on.
16 But I think we should -- I'm in support of moving forward
17 with this.

18 COMMISSIONER PETERMAN: Commissioner Douglas,
19 I'll add, I hear your concerns and we will continue to
20 look at this issue. I think we do have a process for
21 people to bring up more or less clarifying or suggestions
22 the public comment process is that way, our guidebook
23 workshops. There are a number of things that we have
24 adjusted with these documents over time when staff brought
25 them to us.

1 To the extent this process has been used for the
2 RPS to date, those are the party that had attorneys. So
3 it's also about respecting the various levels of
4 sophistication parties might bring. But I appreciate that
5 you have to have a process that allows even for the less
6 connected and less sophisticated person to participate.
7 But we have to make sure that the appeals process this
8 program -- not too weak, not too strong, not too overly
9 strict. So I'll just leave it at that.

10 COMMISSIONER MC ALLISTER: So I'm obviously going
11 out on a limb here, because I don't know all the process
12 here. I'm still the rookie here.

13 But it seems to me -- so not understanding
14 exactly all -- you just enumerated, Commissioner Peterman,
15 a bunch of ways in which people can receive treatment, and
16 all of which one would hope they take advantage of through
17 the process so that before you get to having to submit an
18 appeal, it just avoids the whole need to submit an appeal.
19 For whatever reason, if somebody feels the need, my own
20 view is it's important they do get a substantive hearing.
21 And I think that may be the optics here that, oh, well,
22 just goes to the Chair and he or she can just dismiss it
23 and I'm done and I don't feel well treated.

24 And so obviously that's not happening with our
25 current Chair. But structurally speaking, I think if

1 there were some process to get it to, say, get it to
2 something more like the Commission --

3 COMMISSIONER PETERMAN: I think everyone has the
4 right to send their appeals documentation to any
5 Commissioner they want for review. Although the decision
6 is made by the Executive Director, it is also publicly
7 available as desired.

8 CHAIRPERSON WEISENMILLER: Again I caution you,
9 we did have what was actually a law firm submit basically
10 president clippings and claim them as evidence, which I
11 frankly consider a waste of my time to deal with.

12 COMMISSIONER MC ALLISTER: Okay. Sure.

13 COMMISSIONER PETERMAN: Sounds like we'll have
14 some interesting things we'll be working on over the next
15 few months.

16 COMMISSIONER MC ALLISTER: So I support moving
17 ahead with this as it is.

18 COMMISSIONER PETERMAN: Let's see. What else?
19 Those were the two topics that I wanted to
20 further follow up on. Other thoughts from my fellow
21 Commissioners? I've given you my general impression of
22 this guidebook --

23 COMMISSIONER DOUGLAS: No. Those were the two
24 topics that really jumped out at me after the briefing I
25 got from staff.

1 I think that I really want to talk through with
2 staff a little bit more what they think the appeals
3 process will look like. I think there is an easier way to
4 deal with the complaints that might actually be easier on
5 everyone or if it's -- I think it's a vast improvement
6 from what is currently in the guidebook. And I think it's
7 what we've got right now.

8 So whether we're looking at lessons learned,
9 improving the appeals process, or whether we have some
10 other idea about how to make sure the process works
11 smoothly, it's something we're interested in engaging in.

12 The two issues you raised were the two issues
13 that leapt to my mind as I reflected on my briefing of the
14 materials.

15 I want to thank you for your work on this. I
16 should have said that at the 118 section of this meeting
17 as well. But somehow lunch was so late and we were
18 running into executive session, I didn't manage to do it.
19 But this is a big business meeting for you and we've got
20 two major items before us. So thank you.

21 COMMISSIONER MC ALLISTER: I just want to say
22 thanks to Commissioner Peterman obviously leading the two
23 huge issues here today, all morning and now much of the
24 afternoon and also the staff. Clearly, many stakeholders
25 just feel like they've been included in the process and

1 that's fantastic. Lots of substantive issues here, lots
2 of technical detail. And the staff seems to have
3 approached this with a team effort and making an informed
4 decision that really takes the stakeholders in account.
5 That's the way the process should be. So thank you very
6 much for that.

7 COMMISSIONER PETERMAN: I also mentioned earlier
8 we will be doing updates to the guidebook after the RPS
9 regulations are finalized and looking forward to doing
10 that update to the guidebook at the end of the year.

11 And I'll ask that staff add the appeals process
12 to an outstanding item to deal with a revisit -- have done
13 some of the groundwork internally on before that
14 guidebook. And if there is a changed process, we can
15 recommend to put it up for a vote and consideration there
16 as well as keep obviously all the Commissioners informed
17 on this topic as we all have an interest.

18 So with that, if there are no other questions or
19 comments --

20 MR. HERRERA: Can I interrupt to make comments
21 concerning CEQA and just to clarify we're going to
22 consider these two items separately for adoption of the
23 RPS Guidebook and the overall guidebook.

24 My comments were concerning CEQA generally apply
25 to both sets of revisions. And when the Commission is

1 considering these type of guideline changes, the Legal
2 Office takes a look at those changes to see if the act of
3 adoption constitutes a project under CEQA. It's not that
4 it's opined before. In this case, adoption of these
5 guidelines is not a project under CEQA because the
6 guidelines fall within -- the CEQA guidelines changes fall
7 within the list of excluded activities under Title 14
8 California Code of Regulations Section 15378(b)(4) and (4)
9 in that the activity relates to general policy and
10 procedures.

11 And also we expect the overall guidebook elements
12 to create a government funding mechanism which do not
13 involve any commitment to any specific project, which
14 results in a potentially significant physical impact on
15 the environment.

16 Also to note that the adoption of some of these
17 RPS guideline rules are exempt from CEQA under Title 14
18 California Code of Regulations Section 15308 because
19 adoption of these rules can be seen as an action by a
20 regulatory agency -- by State law to protect the
21 environment. Such RPS rules were developed to carry out
22 the broad goals of the California RPS and achieve for the
23 State intended benefits of the RPS as set forth in the RPS
24 statute. And thinking specifically 399.11. That statute
25 identifies a number of benefits, including displacing

1 false exemptions with the State for air pollution in the
2 state and meeting the state's climate change goals by
3 reducing emissions of greenhouse gas associated with
4 electric generation. So thank you.

5 MR. LEVY: Commissioners, one more point.

6 You've given us some valuable guidance on the
7 appeals process. I've heard two different possible places
8 where that might come into play. I want to leave it open.
9 We will take your guidance back. We'll do a brainstorm
10 we'll consult with you, Commissioner Peterman and Douglas
11 and the others of you.

12 It might be more appropriate in the lessons
13 learned, as Commissioner Douglas said, rather than RPS.
14 I'd like to leave that open for us to incorporate those
15 and evaluate those changes.

16 COMMISSIONER PETERMAN: That sounds fine to me.

17 So before we hold the vote again, I'll reiterate
18 that the four items that staff identified for further
19 consideration in the presentation for as soon as possible
20 will be considered and added to that a fifth one, the
21 consideration of the requirement for revenue-grade meters
22 for historical generation will be considered. However,
23 I'm recommending that we adopt the guidebook as is. And
24 so with that, I will -- oh, clarifying question, counsel.
25 There is an errata, so how should I present this item?

1 MR. LEVY: As amended by the errata.

2 COMMISSIONER PETERMAN: So if you can believe it,
3 we're at Item 6. So I will motion Item 6 as amended by
4 the errata.

5 COMMISSIONER MC ALLISTER: I'll second that.

6 CHAIRPERSON WEISENMILLER: All those in favor?

7 (Ayes)

8 CHAIRPERSON WEISENMILLER: This item pass
9 unanimately.

10 COMMISSIONER PETERMAN: Second, I will motion
11 Item 7.

12 COMMISSIONER DOUGLAS: Second.

13 CHAIRPERSON WEISENMILLER: All those in favor?

14 (Ayes)

15 CHAIRPERSON WEISENMILLER: This item also passes
16 unanimately.

17 COMMISSIONER PETERMAN: Thank you. Thank you to
18 my fellow Commissioners for their involvement, and
19 particularly Chair Weisenmiller, who's been my
20 Bagley-Keene buddy on this issue and incredibly helpful
21 person to discuss issues with.

22 So thank you to him and his staff, as well as my
23 advisors and the entire Renewables team for a great
24 effort. Get back to the regs.

25 CHAIRPERSON WEISENMILLER: So let's go on to Item

1 Number 8. I would encourage the staff to go through the
2 next item also to sit next to the Executive Director so we
3 can move along through these. The next items will
4 go quicker than the last seven.

5 COMMISSIONER PETERMAN: If you're up next, sit in
6 that chair over there. We want a nice train of people
7 going through.

8 So Number 8, James A. Baker III Institute for
9 Public Policy Energy Forum. Possible approval of Contract
10 800-11-001. This is ERPA funding for \$150,000. Ruben
11 Tavares.

12 MR. TAVARES: Good afternoon, Chairman,
13 Commissioners.

14 My name is Ruben Tavares. I'm part of the staff
15 of the Commission.

16 This afternoon I'm presenting for your approval a
17 three-year contract with the Baker Institute for Public
18 Policy, Energy Forum for Public Policy at Rice University.

19 The cost of the contract is \$150,000. And again,
20 it's a three-year contract. Through this contract, staff
21 will receive inputs, data, and assumptions for the World
22 Gas Trade Model that is staff uses to run natural gas
23 simulations. The Baker Institute provides updates to the
24 inputs, data, and assumptions twice a year.

25 The contract also gives the staff access to the

1 Natural Gas Institute structure of the model and the base
2 case scenario forecasts and values developed by the Baker
3 Institute.

4 Staff reviews, modifies, and complements those
5 base case scenarios using California-specific assumptions,
6 inputs, and data to develop California-preferred cases.

7 Staff is planning to use the deliverables of this
8 contract in the 2013 and 2015 IEPR proceedings.

9 I'll be happy to answer any questions if you
10 wish.

11 CHAIRPERSON WEISENMILLER: Thank you.

12 Any questions or comments?

13 COMMISSIONER PETERMAN: No questions, but I have
14 a comment. This model and this work have been incredibly
15 useful for the natural gas forecast and where we used some
16 of this work in the 2011 forecasts that were provided.
17 I'm supportive of this and I've reviewed this within the
18 Division.

19 CHAIRPERSON WEISENMILLER: Thank you.

20 Motion?

21 COMMISSIONER PETERMAN: Any other comments?

22 I motion Item 8.

23 COMMISSIONER DOUGLAS: Second.

24 CHAIRPERSON WEISENMILLER: All those in favor?

25 (Ayes)

1 CHAIRPERSON WEISENMILLER: This item passes
2 unanimously.

3 Item Number 9, Architectural Energy Corporation,
4 Possible Approval of Amendment 1 to Contract 400-10-015
5 with Architectural Energy Corporation, \$250,000. This is
6 ERPA funding also.

7 MS. BROOK: Is it possible, I'd like to take the
8 next two items together. They're extremely similar.

9 CHAIRPERSON WEISENMILLER: That would be great.

10 So the next one, number 10, Bruce A. Wilcox,
11 P.E., possible approval of Amendment 1 to Contract
12 400-10-016 with Bruce A. Wilcox, P.E., \$250,000. Again
13 ERPA funding.

14 MS. BROOK: I'm Martha Brook with the High
15 Performance Buildings and Standards Development Office.

16 I'm here to seek approval of two \$250,000
17 contract amendments for the non-residential building
18 energy science technical support contract and the
19 residential building energy science technical support
20 contract.

21 These two contracts are providing the support
22 services to develop the 2013 compliance software for each,
23 one for non-residential and the other for residential
24 buildings. And these additional funds will be used to
25 provide further development, testing, and documentation of

1 this software, as well as ongoing technical support for
2 the compliance offer, once it's made available to the
3 public. I'm here to answer any questions that you have.

4 CHAIRPERSON WEISENMILLER: Thank you.

5 COMMISSIONER DOUGLAS: I want to recommend this
6 for your support. This work is really important to our
7 Efficiency Program, and I want to thank Martha for
8 bringing it to us.

9 With that, I will move together Items 9 and 10.

10 COMMISSIONER MC ALLISTER: Second.

11 CHAIRPERSON WEISENMILLER: All those --

12 COMMISSIONER PETERMAN: I'm so used to not having
13 a fourth person, I'm just automatically go in order. Go
14 ahead.

15 CHAIRPERSON WEISENMILLER: All those in favor?

16 (Ayes)

17 CHAIRPERSON WEISENMILLER: Items 9 and 10 pass
18 unanimously.

19 Let's go to Item 11, Pacific Gas Electric
20 company, possible approval of Amendment 1 to Contract
21 500-09-027 with Pacific Gas Electric at 500,000, extend
22 the term 18 months to January 30th, 2014. This is PIER
23 Electricity funding. Consuelo Sichon.

24 MS. SICHON: Good afternoon, Commissioners.

25 My name Consuelo Sichon with the Energy Research

1 and Development Division.

2 This proposed amendment will modify an existing
3 agreement with PG&E for the original contract for \$2.8
4 million to install four megawatt sodium sulfur battery
5 energy storage system at the Hitachi Global Storage
6 Technologies facility in San Jose.

7 For this amendment, PG&E proposes to install a
8 two megawatt battery system at their substation in
9 Vacaville. PG&E will compare the performance of both
10 systems and also compare them with other sodium sulfur
11 battery storage projects in the United States.

12 The project results will include a summary of
13 critical technical considerations and cost and benefit
14 data from the initial planning stage through final
15 construction and operation.

16 Also included in this amendment is the deletion
17 of a task to conduct preliminary study of potential
18 compressed air energy storage locations because PG&E has
19 obtained on alternate source of funding to do this work.

20 Staff requests approval of this amendment, and I
21 would be happy to answer any questions.

22 CHAIRPERSON WEISENMILLER: Thank you.

23 I was going to note I was the Lead Commissioner
24 on research and development and I reviewed this contract
25 and all the PIER contracts today, and I find those to be

1 very good contracts.

2 Valerie, do you have some comments?

3 MS. WINN: Valerie Winn for PG&E. And I just
4 wanted to thank the Commission for their involvement in
5 this project. We are moving forward. And ideally, we'll
6 have the batteries, I understand, may be delivered later
7 this month. And we're looking forward to commissioning
8 them and learning a bit more about how they'll work on our
9 system. So thank you.

10 CHAIRPERSON WEISENMILLER: Thank you.

11 Commissioners, any questions or comments?

12 COMMISSIONER DOUGLAS: No comments or questions.

13 I'll move approval of Item 11.

14 COMMISSIONER PETERMAN: Great project renewable
15 integration. I'll second.

16 CHAIRPERSON WEISENMILLER: All those in favor?

17 (Ayes)

18 CHAIRPERSON WEISENMILLER: This item passes
19 unanimously.

20 Let's go onto Item 12, U.C. Berkeley - Center for
21 the Built Environment. Possible Approval of Amendment 1
22 to Contract 500-08-004 with University of California on
23 behalf of U.C. Berkeley Center, to add \$600,000 and extend
24 the term for 21 months. This is PIER electricity natural
25 gas funding. Mr. Scruton.

1 MR. SCRUTON: Good afternoon, Commissioners.

2 I'm Chris Scruton with Energy Efficiency Research
3 Office.

4 One small correction: The contract is
5 500-08-044.

6 We're asking for your approval of this amendment
7 to carry out two projects. Both projects advance the
8 policy goals of California to develop very low or zero
9 energy commercial buildings and both leverage the unique
10 strengths of the Center for the Built Environment, which
11 are fundamentally evaluating indoor environment quality,
12 developing simulation tools for very low energy, heating,
13 cooling, and ventilation systems, and partnership with
14 over 30 firms, paid partnership, including the California
15 utilities and large institutions, and most of the local
16 luminaries in the architecture and engineering field.

17 So the first project would continue testing and
18 developing an advanced energy efficient personal comfort
19 system. And the concept of this system is that it uses a
20 small amount of energy to deliver space conditioning and
21 ventilation precisely where it's needed to offset a much
22 larger amount of energy to condition an entire building.
23 So this project would work with furniture makers and with
24 the institutional owners to develop and test this concept.

25 The second project would be working with owners

1 and designers and operators of some of the near zero net
2 energy buildings that have already been constructed and
3 also with some of the new facility's at Lawrence Berkeley
4 Labs that are being built by the Department of Energy.
5 And what they intend to investigate in three case studies
6 are how well these systems are working, how can they
7 optimally be working, and how to improve the designs and
8 simulation tools that we have, and then to publicize these
9 results to reduce the barriers and to increase the
10 confidence of the people who would be making the
11 investments in these sorts of buildings.

12 So I would be pleased to answer any questions.

13 CHAIRPERSON WEISENMILLER: Commissioners, any
14 questions or comments?

15 COMMISSIONER DOUGLAS: Just one question. Can we
16 get one of those personal comfort systems installed right
17 up here?

18 MR. SCRUTON: Actually, you could. We actually
19 had one over at the security guard's desk.

20 COMMISSIONER DOUGLAS: Oh, boy. That's funny.
21 Ask a question, get an answer.

22 Thank you.

23 Commissioners, I think this is really valuable
24 work. I'd like to -- it's a research project. I think
25 it's valuable. If there are no other questions, I'll move

1 Item 12.

2 COMMISSIONER MC ALLISTER: I'll second. I'm
3 familiar with the Center, and they do really great work.
4 It's definitely worth it.

5 CHAIRPERSON WEISENMILLER: All those in favor?
6 (Ayes)

7 CHAIRPERSON WEISENMILLER: This item passes
8 unanimously. Thank you.

9 Item Number 13, Lawrence Berkeley National
10 Laboratory. Possible Approval of Amendment 1 to Contract
11 50-10-052, U.S. Department of Energy. The adds 1.55
12 million and funds six projects. This is PIER electricity.
13 Heather Bird.

14 MS. BIRD: Good afternoon, Commissioners.
15 I'm Heather Bird with the Energy Efficiency
16 Research Office.

17 We are seeking approval of a contract amendment
18 with Lawrence Berkeley National Laboratories. We propose
19 to add six new projects with no term extension.

20 Project 1: Graphical user interface for
21 EnergyPlus. Additional features are needed for this
22 building energy modeling tool in the areas of advanced
23 heating and cooling systems, energy envelope systems, and
24 the advanced hot water generation and distribution.
25 \$300,000 will be applied to develop these features.

1 Project 2: EnergyIQ action oriented
2 benchmarking. EnergyIQ is building energy software that
3 helps identify cost-effective ways to reduce energy waste
4 in existing buildings and helps nonresidential building
5 owners and operators comply with AB 1103. \$300,000 will
6 be invested in upgrades related to natural gas use and the
7 addition of an application interface to make the software
8 accessible through third-party developers and smart
9 phones.

10 Project 3: Improved hot water distribution
11 efficiency. It's estimated that as much as one billion
12 dollars worth of water in energy is wasted in California
13 residents each year due mainly to line loss and standby
14 losses of water heaters in poorly designed hot water
15 distribution systems. This project will apply \$500,000
16 towards addressing poorly designed hot water distribution
17 systems by installing temperature and flow sensors to
18 track energy and water usage patterns with the goal of
19 providing proven simulation models and energy efficiency
20 standards.

21 Project 4: Improved residential programmable
22 thermostats. Programmable thermostats have not saved
23 energies expected due to programming complexity. This
24 \$150,000 project will determine factors that enhance
25 usability of Programmable thermostats with goals to

1 increase use and energy benefits, reduce costs, and
2 recommend changes to Title 24 standards.

3 Project 5: More efficient residential heating
4 and cooling by air flow instrument standards. This
5 \$200,000 project will develop a rigorous test standard for
6 flow hoods that measure air flow through residential
7 return grilles during commissioning. An official standard
8 will be developed and a test method will be provided for
9 Title 24.

10 Project 6: Grading method for roofing aggregate.
11 This \$50,000 project will develop a practical, accurate,
12 and economical method for testing reflectivity of
13 aggregate roofs using simple and economical method that
14 will significantly reduce the cost of testing required by
15 Title 24.

16 We request approval of this amendment. If you
17 have any questions, I would be happy to answer them now.
18 Thank you.

19 CHAIRPERSON WEISENMILLER: Thank you.

20 Commissioners, any questions or comments?

21 COMMISSIONER DOUGLAS: This is all really
22 valuable work. The comment on being able to better
23 measure the performance of aggregate roofing, it would be
24 great to have that tool today. It's good it's being
25 developed.

1 So I'll move Item 13.

2 COMMISSIONER MC ALLISTER: I'll second.

3 CHAIRPERSON WEISENMILLER: All those in favor?

4 (Ayes)

5 CHAIRPERSON WEISENMILLER: Item 13 has passed.

6 Thank you.

7 Item 14. Item 14 will set the context for the
8 Items 14 through 23 since they're all one solicitation.

9 So Item 14 is Altex Technologies Corporation.

10 Possible Approval of Agreement for PIR-11-021 for Altex
11 Technologies Corporation for a grant of \$1,390,941. And
12 this is PIER electricity funding.

13 Michael Lozano.

14 MR. LOZANO: Good afternoon, Commissioners.

15 My name is Michael Lozano with the Industrial Ag
16 Water Team.

17 This project for biomass blending and
18 densification system, or BBADS, as well as the following
19 nine projects were the result of our competitive 2011
20 Emerging Technologies Demonstration Grant.

21 California ranks fifth in the world in
22 agricultural production worth approximately \$40 billion, a
23 source from over 75,000 farms. Some of these projects are
24 transported in bail form. Take, for example, hay.
25 California accounts for 21 percent of the country's

1 established hay market, which represents seven million
2 tons per year.

3 Distributors must control transport cost to
4 markets. This requires that the low density of three to
5 five pounds for loose hay be increased to 35 pounds per
6 cubic foot for the most economical transport and
7 containers from the farm to the market. In short, it
8 fully utilizes your flatbed truck from the farm.

9 Current methods of densification, including
10 cubing and double bailing require substantial electric
11 power of three dollars per ton of densified material.
12 Furthermore, these densities achieved are only 20 to 25
13 pounds per cubic foot. Through development efforts by
14 Altex, the BBADS, biomass densification system has been
15 shown to create biomass logs with a density of 30 to 60
16 pounds per cubic foot, depending on the materials.
17 Therefore, the system, BBADS, can achieve the ideal
18 transport density of 35 pounds per cubic foot.

19 Most importantly, the process achieves the
20 density at an electric power cost of only \$1.16 per ton,
21 which is about 60 percent lower than the conventional
22 state-of-the-art methods. Applying this reduction to 7.5
23 million tons of feed hay, the power and cost savings just
24 for the hay market alone would be 110 megawatt hours per
25 year and almost \$14 million in electricity costs.

1 This 33 month project will be located in Davis,
2 California and benefits from \$481,391 in match.

3 We request your approval of this project and I
4 welcome any questions.

5 CHAIRPERSON WEISENMILLER: Thank you.

6 Commissioners, any questions or comments? Again,
7 this is going through the -- reviewed all these PIER
8 contracts as the Lead Commissioner.

9 COMMISSIONER DOUGLAS: Sounds like a great
10 project. I'll move approval of Item 14.

11 COMMISSIONER PETERMAN: I'll second.

12 CHAIRPERSON WEISENMILLER: All those in favor?

13 (Ayes)

14 CHAIRPERSON WEISENMILLER: Thank you. This has
15 been approved unanimously.

16 Let's go to Item 15, Palo Alto Research Center,
17 Incorporated. Possible approval of Agreement PIR-11-006
18 for a grant of \$1,001,899. And this is PIER electricity
19 natural gas funding. Anish.

20 MR. GAUTAM: Good afternoon, Commissioners.

21 Anish Gautam from the Energy Research Division.

22 And we are here to seek approval of this project,
23 Palo Alto Research Center, also known as PARC. Now
24 California has approximately 5800 wastewater treatment
25 facilities, consuming over 2,000 megawatt hours of

1 electricity annually. For the most part, the secondary
2 treatment step is the most energy intensive, can be
3 50 percent of more of the facility's total use.

4 In this project, PARC will be demonstrating their
5 novel hydrodynamic separation technologies. This is
6 compact, modular, highly scalable unit. And it will start
7 to significantly increase the primary clarifier
8 performance by removing the difficult to settle solids,
9 which ends up in the secondary treatment step. This
10 project will be demonstrated at the city wastewater
11 treatment facility, which is in PUC territory.

12 Now unlike current technologies that rely on
13 gravity-based settling, the PARC technology is independent
14 of particle-specific gravity. It's able to remove the
15 suspender and neutral volume particles that are part of
16 the clarifying effluent. PARC technology utilizes the
17 equilibrium of multiple hydrodynamic forces to separate
18 suspended particles in specially designed spiral channels
19 and continuous flow process without the use of a physical
20 barrier.

21 The additional solid waste removal will be
22 dewatered and sent to on-site digester for biomethane
23 production that can be used on site.

24 In terms of any savings, we anticipate a 4
25 percent market penetration by the year 2017. And that's

1 approximately 30 megawatt hours per year of energy
2 savings, which represents almost \$5 million a year savings
3 to the industry.

4 A system demonstration of this project will
5 provide the Energy Commission information performance and
6 economic data the end users require in order to adopt the
7 technologies. And to also give an opportunity to
8 electrical utilities to possibly offer incentive for
9 replacement technology.

10 The project has a term of 33 months. And during
11 that term, PARC will partner and provide a little over
12 380,000 dollars in match funding.

13 We request your approval. If you have any
14 questions, we'll be happy to answer them for you. Thank
15 you.

16 CHAIRPERSON WEISENMILLER: Thank you very much.
17 Commissioners, any questions or comments?

18 COMMISSIONER PETERMAN: No questions.

19 I'll just add this is a good project. I could
20 comment of many of these things or wax poetically on the
21 value of the renewable system and the transportation
22 system, but thank staff for their tremendous work on this.
23 But considering the interest of time, I won't be making
24 those types of comments. But please know they apply to
25 you. That was my only comment, now, back and going

1 forward.

2 COMMISSIONER DOUGLAS: If Commissioner Peterman
3 resists the temptation to wax poetic, I better do
4 something. I'm kidding. I'll second.

5 CHAIRPERSON WEISENMILLER: All those in favor?
6 (Ayes)

7 COMMISSIONER PETERMAN: I move Item 15.

8 COMMISSIONER DOUGLAS: Second.

9 CHAIRPERSON WEISENMILLER: All those in favor?
10 (Ayes)

11 CHAIRPERSON WEISENMILLER: Item passes
12 unanimously.

13 Go to Item 16, Kennedy/Jenks Consultants.
14 Possible Approval of PIR-11-018 for a grant of \$1,418,800.
15 And this is PIER electricity funding.

16 Jeffrey Doll.

17 MR. DOLL: Good afternoon, Commissioners.

18 My name is Jeff Doll. I'm with the Energy
19 Efficiency Research Office. I'm here to seek approval for
20 the project with Kennedy/Jenks Consultants.

21 This project is a wastewater treatment energy
22 efficiency project, like the PARC project.

23 Unlike the PARC project, this project will
24 demonstrate a filtration system. And it is like the PARC
25 project; it is designed similarly to reduce aeration power

1 requirements and also increase recovery of digester gas
2 for additional energy production.

3 The project demonstration site will be at the
4 Linda County Water District's wastewater treatment plant
5 in Marysville, which is in PG&E service territory.

6 As I said, Kennedy/Jenks would place a filtration
7 system in the primary clarifier as an intermediary
8 treatment step before the secondary treatment process,
9 which is known as the aerated activated sludge. This
10 would have the effect of decreasing the amount of solids
11 going to the secondary treatment process.

12 The additional solids removal will result in a
13 reduction of the aeration energy required for the
14 secondary treatment process.

15 In addition, the additional solid removed by the
16 filtration process will be sent to an on-site anaerobic
17 digester for increased biomethane production for
18 electricity generation.

19 Kennedy/Jenks estimates market penetration will
20 increase initially from two to three percent to five to
21 ten percent by 2017. Staff estimates that 25.4 gigawatt
22 per year will be saved in electricity. And in addition to
23 that, 18.4 gigawatt hours per year in electricity will be
24 saved through biomethane production.

25 There is an \$8 million estimate in overall cost

1 savings. The successful demonstration of this project
2 will provide the necessary performance, reliability, and
3 economic data necessary for adoption by the industry and
4 to provide the utilities with the information needed for
5 incentives and rebates.

6 We request approval for this project. Thank you.
7 And I'm available if you have any questions.

8 CHAIRPERSON WEISENMILLER: Thank you.

9 Commissioners, any questions or comments?

10 COMMISSIONER PETERMAN: I made my comment
11 earlier.

12 COMMISSIONER DOUGLAS: Move approval of Item 16.

13 COMMISSIONER PETERMAN: I'll second.

14 CHAIRPERSON WEISENMILLER: All those in favor?

15 (Ayes)

16 CHAIRPERSON WEISENMILLER: Item 16 passes
17 unanimously. Thank you.

18 Takes us to Item 17, UTS Bioenergy, LLC.
19 Possible Approval of Agreement PIR-11-026 for a grant of
20 \$1,933,551. And these are PIER natural gas funding.
21 Rajesh Kapoor.

22 MR. KAPOOR: Good afternoon, Chair.

23 My name is Rajesh Kapoor from Energy Research and
24 Development Division in Ag Water Group.

25 I'm requesting an approval of municipal digester

1 revolving demonstration project with UTS Bioenergy Company
2 located near San Diego, California.

3 This project will demonstrate a retrofit
4 technology to increase biogas production and reduce
5 organic solid disposal from wastewater treatment plants.
6 This technology will allow wastewater treatment plants to
7 increase biogas production for on-site electricity
8 generation. This project addresses limitation of
9 conventional anaerobic digestion by installing a high
10 solids anaerobic digester retrofit package and is intended
11 to double or triple the solids contents of the tank by
12 removing water and concentrating the solids.

13 This technology has the process advantage of
14 retaining more active bacteria in the tank and also
15 retaining the solids for a longer time. Installation of
16 this technology will allow the plant to digest fats, oils,
17 and grease along with waste solids. This project will
18 demonstrate this technology in full scale at San Luis
19 Obispo water reclamation facility.

20 Through this demonstration project, the plant
21 will be capable of producing enough energy to cover all of
22 the plant's current electricity needs and provide an
23 additional 100 kilowatt of electricity to sell to the
24 grid. This will result in annual savings of 366,000 to
25 the grant. Anaerobic digestion is employed nationwide at

1 approximately 700 wastewater treatment plants. And in
2 California alone, 117 municipal wastewater treatment
3 plants utilize anaerobic digestion.

4 For this project, we are provide 1,933,551
5 natural gas funding, and UTS will provide 607,722 in match
6 funding. The project term is 33 months.

7 We request an approval of this project. If you
8 have any questions, I will be happy to answer them.

9 CHAIRPERSON WEISENMILLER: Thank you.

10 Commissioners, any questions or comments?

11 COMMISSIONER PETERMAN: No. I'm supportive of
12 this project. No other comments, I'll moved Item 17.

13 COMMISSIONER MC ALLISTER: I'll second.

14 I want to say there is a lot of money flowing
15 through these items. And the fact it's going very quickly
16 hides the staff and lots of processes have been behind
17 this, bringing all of these things right up to us so it's
18 all prepped. And we don't have to make many comments
19 because there's so much work already.

20 So I'll second.

21 CHAIRPERSON WEISENMILLER: Again, I got to sit
22 through the presentation on all of these items in great
23 detail. So certainly have done a lot of screening.

24 So a motion. All those in favor?

25 (Ayes)

1 CHAIRPERSON WEISENMILLER: This item passes
2 unanimously. Thank you.

3 Autogrid systems. Possible approval of Agreement
4 PIR-11-007 for a grant of \$1,199,544. This is PIER
5 electricity funding. And Anish Gautam.

6 MR. GAUTAM: Good afternoon. Hello again.

7 My name is Anish Gautam from the Energy Research
8 and Development Division's Ag Water Group. We are here to
9 seek your approval of this project with the Autogrid
10 Systems.

11 In this project, Autogrid will be demonstrating
12 their demand response optimization and management system.
13 This will allow end users to broadly engage in not just
14 additional capacity getting demand response, but also the
15 emerging demand response and ancillary services all in an
16 integrated and optimized manner.

17 The software/hardware system will be demonstrated
18 in two initial facilities, a wastewater treatment plant
19 and a recycling facility, both in the city of Sunnyvale
20 and they are in competing service territory.

21 Now, the current market options for industrial
22 end users to participate in the demand response are
23 complex and costly, such that most end users either do not
24 participate. Or if they do, there is not a maximum
25 economic advantage. For example, if an end user is to

1 participate in ancillary service programs, they're
2 required to install CAL ISO improved meters which cost
3 \$70,000 each. That can be a cost detriment to the end
4 user to prevent them from participating in demand
5 response.

6 This project will demonstrate the off-the-shelf
7 IT equipment and controlled equipments that have been
8 shown and proven in energy efficiency applications can
9 provide equal or better performance of existing meters
10 while costing 10 or 20 percent less, 10 to 20 percent of
11 all their cost.

12 Another major focus will be to demonstrate the
13 software's advanced analytics and optimization techniques
14 to improve the efficiency and reliability of the grid.
15 The software and its learning engine will keep track of
16 all demand tech resources and the facility's participation
17 demand response. It will take all the data team to build
18 a partial profile of the facility such that the software
19 itself can determine what the shared capacity is, the
20 shared duration, and any rebound effects that may occur at
21 the end of the demand response cycle as the facility ramps
22 back up to 100 percent power. All occurred in a
23 commercially available package with the software utilizing
24 Cloud to further reduce the cost to the end users.

25 In terms of energy savings, we anticipate a ten

1 percent reduction in the industrial end user peak demand
2 charge. We also anticipate equipment cost of less than
3 \$10,000 per site -- this is telemetry equipment -- and a
4 system payback of two years or less without initiatives
5 and rebates. The project has a term of 33 months. And
6 for that term, Autogrid and partners will be provide
7 \$603,000 in match funding.

8 If you have any questions, we'll be happy to
9 answer them for you. We seek your approval for this
10 project. Thank you.

11 CHAIRPERSON WEISENMILLER: Thank you.

12 We also have a gentleman on the phone, Chris
13 Knudson.

14 MR. GAUTAM: He's the PI for the project. I
15 don't know if he has a comment or he's just on the line.

16 CHAIRPERSON WEISENMILLER: Chris? Guess not.

17 MR. KNUDSON: I'm here. Can you guys hear me?

18 CHAIRPERSON WEISENMILLER: Yes.

19 MR. KNUDSON: Yes. Anish asked me to be on the
20 line in case there were any detailed questions I needed to
21 answer. So I'm here to answer any questions that you
22 have. I'm the Chief Technology Officer for Autogrid.

23 COMMISSIONER MC ALLISTER: Good stuff.

24 CHAIRPERSON WEISENMILLER: Any questions or
25 comments?

1 COMMISSIONER MC ALLISTER: No, I don't think so.
2 Clearly valuable.

3 COMMISSIONER DOUGLAS: So I'll move Item 18.

4 COMMISSIONER MC ALLISTER: I'll second.

5 CHAIRPERSON WEISENMILLER: All those in favor?

6 (Ayes)

7 CHAIRPERSON WEISENMILLER: This item passes
8 unanimately.

9 Thanks for being on the line, Chris.

10 We're going to take a five-minute break.

11 (Whereupon a recess was taken at 4:08 PM.)

12 CHAIRPERSON WEISENMILLER: Back on the record.

13 Number 19, Great Circle Industries. Possible
14 Approval of Agreement PIR-11-011 for a grant of \$750,000.
15 This is PIER electricity funding. Heather Bird again.

16 MS. BIRD: Good afternoon.

17 Heather Bird again with the Energy Efficiency
18 Research Office.

19 We're seeking approval of the i50 decentralized
20 wastewater treatment water recycling project with Great
21 Circle Industries, also known as GCI. This project is the
22 result of a competitive solicitation.

23 The i50 unit is an alternative wastewater
24 treatment and water recycling technology. The treated
25 water is suitable for use in irrigation of food and

1 non-food crops.

2 GCI will formally test, demonstrate, and seek to
3 obtain State of CALIFORNIA Title 22 regulatory approval
4 for the unique modular wastewater treatment and reuse
5 processes and equipment.

6 Obtaining regulatory approval is needed in order
7 to use the resulting claimed wastewater for direct
8 irrigation. The project demonstration site will be the
9 Dublin-San Ramon services district in Pleasanton,
10 California, which is in PG&E service territory.

11 The energy consumption of the i50 is anticipated
12 to be less than 33 percent of the electrical energy
13 consumed by pumping water to Southern California via the
14 State Water Project.

15 GCI expects to demonstrate power consumption
16 below three watt hours per gallon. The State of
17 California has a goal to increase recycled water by
18 500,000 acre feet per year in the next decade. If the GCI
19 model meets only ten percent of that volume, 1,000 acre
20 feet of water and correspondingly 215 megawatt hours of
21 electrical energy will be saved annually.

22 At an assumed rate of ten cents per kilowatt
23 hour, this corresponds to a total cost savings of
24 approximately \$21.5 million per year.

25 GCI's project partner, Mica Energy Corporation,

1 will provide \$250,000 of matched funding. The project
2 term is 33 months.

3 We request approval of this project. And if you
4 have any questions, I'd be happy to answer them now.
5 Thank you.

6 CHAIRPERSON WEISENMILLER: Thank you.

7 Commissioners, any questions or comments on this?

8 COMMISSIONER DOUGLAS: This looks like a really
9 efficient project. Move approval of Item 19.

10 COMMISSIONER MC ALLISTER: Second.

11 CHAIRPERSON WEISENMILLER: All those in favor?

12 (Ayes)

13 CHAIRPERSON WEISENMILLER: This item passes
14 unanimously.

15 Item 20, Black & Veatch. Possible Approval of
16 Agreement PIR-11-020 for grant of \$799,860. And this is
17 PIER electricity funding. Paul Roggensack.

18 MR. ROGGENSACK: Good afternoon, Commissioners.

19 My name is Paul Roggensack with the Energy
20 Efficiency Research Office.

21 And before I begin, I would like to make a
22 correction to the business meeting agenda, which says that
23 the project is funded with both natural gas and
24 electricity. It's actually 100 percent PIER electric
25 funds.

1 This project requests approval of a full-scale
2 demonstration of an innovative electro dialysis technology
3 for zero liquid discharge desalination for \$799,860 for a
4 term of 34 months with Black & Veatch.

5 The project will demonstrate a new technology
6 called electrodialysis metathesis at the city of Beverly
7 Hills desalination facility to achieve zero liquid
8 discharge. Electrodialysis metathesis is an improvement
9 over conventional electrodialysis. It increases the water
10 recovery from brine waste from 80 percent to between 87 to
11 98 percent. It also purifies the salt in the brine waste
12 by producing two separate brine streams: One stream
13 having just sodium salts and the stream having calcium and
14 magnesium salts. This purification can increase the
15 likelihood of commercial value for the salt waste.

16 This technology will have wide applicability in
17 both municipal and wastewater -- industrial desalination
18 purposes, such as power plant cooling water. However,
19 this project will demonstrate its effectiveness in zero
20 liquid discharge for brine disposal, brine disposals of
21 major impediment for inland communities for using brackish
22 groundwater for their water supply.

23 To achieve zero liquid discharge requires thermal
24 desalination to completely remove water from the brine
25 waste. However, thermal desalination is very

1 energy-intensive, requiring up to 80 kilowatt hours per
2 meter cubed -- per meter cubed. The electro dialysis
3 metathesis can significantly reduce that energy
4 requirement. It can reduce the energy to remove water
5 from brines to as low as a half a kilowatt hour per meter
6 cubed.

7 Pilot tests have shown that electro dialysis
8 metathesis prior to thermal desalination reduced the
9 energy required for thermal desalination by 75 percent.
10 The U.S. Bureau of Reclamation did a study on the market
11 potential for this technology. They estimated that in
12 southern California there was over 47 million gallons per
13 day of brine waste in Southern California in the year
14 2010. And they estimated that that number will increase
15 by the year 2035 by 135 million gallons per day.

16 This technology could reduce the cost of zero
17 liquid discharge of that brine from \$12 per 1,000 gallons
18 to \$4 per thousand gallons and the energy consumption
19 would be reduced from 80 kilowatt hours per 1,000 gallons
20 to ten kilowatt hours per thousand gallons.

21 Using this proposed technology to treat 135
22 milligrams per day of costs could save the State
23 approximately \$394 million per year in treatment costs and
24 would reduce energy consumption by up to 144 gigawatt
25 hours per year. The match for this will be \$249,000 from

1 Viola Corporation.

2 Be happy to answer any questions you have about
3 this.

4 CHAIRPERSON WEISENMILLER: Thank you.

5 Commissioners, any comments or comments on this
6 item?

7 COMMISSIONER MC ALLISTER: I would just say in
8 southern California there is lots of talk about
9 desalination and there are a couple plants that are moving
10 forward. One in particular is under construction, and
11 they don't use this kind of technology. They are on the
12 coast. The one that's most advanced is on the coast. But
13 clearly, going forward, this is something we have to have
14 a handle on when there is an ever stronger push for desal.
15 This is a good project.

16 I will make a motion to approve Item 20.

17 COMMISSIONER DOUGLAS: Second.

18 CHAIRPERSON WEISENMILLER: All those in favor?

19 (Ayes)

20 CHAIRPERSON WEISENMILLER: This item passes
21 unanimously.

22 Number 21, ICF International. Possible Approval
23 of agreement PIR-11-014 for a grant of \$974,179 to ICF
24 International. This is PIER national gas funding.

25 And Paul again.

1 MR. ROGGENSACK: Thank you, Commissioners.

2 This project is called the Data Center
3 Demonstration with combined heat and power technology for
4 \$974,179 for 26 months to ICF Corporation.

5 The technology demonstrated will be a hybrid
6 microturbine, which is a new application of an existing
7 technology. Microturbines normally do not apply to data
8 centers. However, this demonstration will bridge the gap
9 and using this technology in a data center.

10 The hybrid micro turbine will replace a standard
11 uninterrupted power supply based on battery technology to
12 provide power quality during energy fluctuations. And it
13 can also provide a backup power to replace a backup diesel
14 generator in the event of power failure. This technology
15 is based on inverter modules installed on a standard cap
16 sell C65 microturbine to provide AC power connections to
17 both the data center load and the grid. And the electric
18 chiller will be replaced with an absorption chiller
19 powered by the clean exhaust from microturbines to provide
20 the data center's cooling requirements. Thus, this
21 technology will incorporate combined heat and power in a
22 data center.

23 The system will have a capability to totally
24 remove the data center from the electric grid and run on
25 either natural gas or renewable energy sources or can be

1 used only at peak hours for load shifting and use the grid
2 at lower electric grid hours.

3 The estimated energy cost savings will reduce
4 utility bills up to 41 percent and reduce the NOx produced
5 at a local power plant by 80 percent for generating a
6 similar amount of electricity.

7 The match on this will be \$500,000 from partner
8 Cap Microturbines, Thermal USA, and Southern California
9 Gas Corporation. This project will be demonstrated at a
10 Southern California gas data center in Monterey Park.

11 Be happy to answer any questions.

12 CHAIRPERSON WEISENMILLER: Thank you.

13 Commissioners, any questions or comments?

14 COMMISSIONER DOUGLAS: No. The data center has
15 come up often. They use a lot of energy. They're an
16 important part of the economy and important part of the
17 high tech sector in California. This looks like a good
18 opportunity area.

19 I move approval of this item.

20 COMMISSIONER MC ALLISTER: Second.

21 CHAIRPERSON WEISENMILLER: All those in favor?

22 (Ayes)

23 CHAIRPERSON WEISENMILLER: This item passes
24 unanimously. Thank you.

25 Number 22, Berkeley Energy Sciences Corp.

1 Possible Approval of Agreement PIR-11-010 for a grant of
2 1.8 million. And this is PIER electricity funding. Kiel
3 Pratt.

4 MR. PRATT: Good afternoon, Commissioners.

5 I'm Kiel Pratt with the Energy Research and
6 Development Division.

7 This item today is for a demonstration of two
8 novel flywheels at the San Diego Food Bank in San Diego,
9 California. Flywheels have conventionally been used as a
10 means of energy storage, but primarily as power devices.
11 They're capable of high-powered delivery for a short
12 duration.

13 They've also been in mobile applications and
14 hybrid vehicles as a means of kinetic energy recovery, in
15 which case, the objective was to maximize energy content
16 per kilogram of mets.

17 The innovation with these flywheels is that the
18 objective and the optimization is different. They're
19 trying to maximize energy content per dollar. And instead
20 of expensive materials like carbon fiber that can spin at
21 higher rates, Berkeley Energy Science Corporation is using
22 a proprietary steel alloy for a durable material at a low
23 cost optimized for stationary applications.

24 Another innovation of these flywheels is that
25 they have a longer discharge time. They're capable of

1 higher energy storage capacity relative to their power
2 discharge, which enables new applications, permanent load
3 shifting, peak shaving. They can discharge over a course
4 of several hours. This helps save costs for commercial
5 industrial customers. Often a component of the utility
6 bill is the peak demand electricity charge. That's
7 separate from the energy charge, which may be on a time of
8 use basis, in which case load shifting and peak shaving as
9 economical applications.

10 Berkeley Energy Sciences Corporation is providing
11 800,000 in match funding to our \$1.8 million grant. And
12 I'm happy to answer any other questions.

13 CHAIRPERSON WEISENMILLER: Thank you.

14 Commissioners, any questions or comments?

15 COMMISSIONER MC ALLISTER: I'll just say when I
16 read through the description of this, in my limited time
17 to get prepared, my first question was what's the
18 run-through capacity of the this particular. And you
19 answered that question. And that's a good answer.
20 Because I think the short term nature of most flywheel
21 storage means it's good for momentary responses, but not
22 for longer-term responses like the one you talked about.
23 So I think this is a promising.

24 And move to approve Item 22.

25 CHAIRPERSON WEISENMILLER: 23. 22. 22.

1 COMMISSIONER DOUGLAS: I'll second that.

2 CHAIRPERSON WEISENMILLER: All those in favor?

3 (Ayes)

4 CHAIRPERSON WEISENMILLER: Item 22 passes
5 unanimately. Thank you.

6 Item 23, West Biofuels, LLC. Possible Approval
7 of Agreement PIR-11-008 for a grant of two million. And
8 this is PIER natural gas funding. Leah Mohney.

9 MS. MOHNEY: Good afternoon.

10 My name is Leah Mohney from the Energy Efficiency
11 Research Office. And Matt Summers from West Biofuels is
12 here if case you have any questions.

13 This project will demonstrate the use of advanced
14 thermal chemical conversion systems to produce both heat
15 and electricity using readily available sustainable almond
16 biomass as feedstock.

17 West Biofuels has developed a thermal reforming
18 process which breaks down biomass into its molecular
19 components through a chemical reaction run by heat and
20 oxygen and steam under low pressure. The biomass CHP
21 conversion system utilizes indirect heating of biomass to
22 produce a high quality gas that is suitable for power
23 production and for synthesizing into thin liquid fuels.

24 An existing dual-fluidized bed biomass
25 gasification system operated by West Biofuels will be

1 reconfigured to maximize synthetic gas production while
2 meeting California's air emission standards. Two emission
3 control systems will be designed and tested.

4 An absorber with microwavable regeneration for
5 the combustor exhaust and a compact selective catalytic
6 reduction system for the engine exhaust. The project
7 components will be designed, fabricated, and installed in
8 Woodland, which is in PG&E service territory. This system
9 will be demonstrated on almond shells, greens, and other
10 almond byproducts.

11 This process is much more efficient than other
12 reforming technologies because it does not require high
13 pressures or a separation plan to remove nitrogen from the
14 air. This demonstration unites the biomass gasification
15 system with an existing compatible system and is expected
16 to produce gas at a 20 percent higher heating value and
17 much lower engine emissions. Additionally, it is less
18 expensive than existing technology and will produce a
19 clean ash residual that has the potential to be re-sold as
20 fertilizer.

21 The goal is to determine whether the reconfigured
22 system can be commercially employed in the agricultural
23 processing sector while complying with the state's
24 strictest air emission requirements. There are over 1.5
25 million tons of almond biomass produced annually in

1 California. This material has the potential of replacing
2 the equivalent of 300 million therms of natural gas and
3 generating 150 megawatts of electricity, while reducing
4 CO2 emissions by 1.5 million tons annually. This project
5 will produce energy in excess of the almond industry's
6 annual production needs at an estimated value of \$202.4
7 million. A successful demonstration will provide the
8 necessary performance, reliability, and data necessary for
9 adoption by the industry.

10 This project includes match funding of
11 approximately \$1,451,000. Other partners involved in this
12 project, Renewable Energy America, U.C. San Diego, and
13 Western Agricultural Processors Association.

14 We request approval of this project. If you have
15 any questions, I would be happy to answer them.

16 CHAIRPERSON WEISENMILLER: Thank you.

17 And this gentlemen from West Biofuels want to
18 make any comments?

19 MR. SUMMERS: I'm just here to answer questions.

20 CHAIRPERSON WEISENMILLER: Thank you. Thank you
21 for being here.

22 Commissioners, any questions or comments for
23 staff or the gentleman?

24 COMMISSIONER PETERMAN: Sounds like a very
25 interesting project. I'm supportive.

1 COMMISSIONER DOUGLAS: It's really good to see
2 projects around the biomass and agricultural and food
3 processing sectors, which are important sectors in
4 California. I'll move Item 23.

5 COMMISSIONER PETERMAN: I'll second.

6 CHAIRPERSON WEISENMILLER: All those in favor?

7 (Ayes)

8 CHAIRPERSON WEISENMILLER: Item 23 pass
9 unanimately.

10 Let's look at Item 24, University of California
11 Berkeley. Possible Approval of Contract 500-11-017 for
12 \$300,000 with the Regents of the University of California
13 on behalf of Berkeley Campus. This is federal WESTCARB
14 funding. Kiel.

15 MR. PRATT: Good afternoon, Commissioners.

16 Kiel Pratt again from the Energy Efficiency
17 Research Development Division.

18 I'd like to note this item, as opposed to ones
19 that came before, is the first that is not the result of
20 the industrial agriculture and water program competitive
21 solicitation bid solicitation that Michael outlined back
22 in Item 14. This begins a new set. And this is federal
23 WESTCARB funding.

24 The Department of Energy is funding seven
25 regional carbon sequestration partnerships, of which

1 WESTCARB is one, to investigate carbon capture,
2 utilization, and storage. This has been ongoing for
3 several years. And research is ongoing.

4 This agreement with Berkeley would allow the
5 Berkeley geospatial innovation facility to serve as a data
6 clearinghouse for parallel efforts in the WESTCARB region.
7 Data will be collected, analyzed, organized, and moved
8 into standard geographic information system formats.

9 This data will then be published and made
10 available to the public through both an interactive
11 website and through the publications of the biennial
12 national carbon sequestration. I have the 2010 version
13 here. Results from this project will appear in the 2014
14 version.

15 I'm happy to answer any questions you have.

16 CHAIRPERSON WEISENMILLER: Thank you.

17 Commissioners, any questions or comments?

18 COMMISSIONER PETERMAN: No questions, but I'll
19 say I'm happy to see this project and focus on carbon
20 capture and sequestration and communicating the results to
21 the public.

22 As we work very aggressively to develop
23 renewables, we don't want to forget about opportunities to
24 capture carbon dioxide fossil generation that very well
25 may be useful. And particularly communicating these new

1 resources, some of the challenges as well and the risk
2 with siting them in certain communities is very important.
3 I'm incredibly supportive.

4 I'll make a motion on Item 24.

5 COMMISSIONER DOUGLAS: Second.

6 CHAIRPERSON WEISENMILLER: All those in favor?

7 (Ayes)

8 CHAIRPERSON WEISENMILLER: Item 24 passes
9 unanimately. Thank you.

10 Item 25 Pacific Gas and Electric Company.
11 Possible Approval of Contract 500-11-018 for \$1,535,725
12 and with the Pacific Gas and Electric Company. This is
13 PIER electricity funding. Jamie.

14 MR. PATTERSON: Good afternoon, Commissioners.

15 I'm Jamie Patterson, Senior Electrical Engineer
16 for the Energy Technology Systems Integration area of PIER
17 program.

18 I will be presenting Item 25, 26, and 27 today.
19 Items 25 and 26 are complimentary projects that will be
20 sharing a common hat, which is a Technical Advisory
21 Committee and also data between the two and are very
22 closely related.

23 Item 25 with Pacific Gas and Electric Company is
24 a modeling -- distribution modeling project that will be
25 modeling distribution feeders with increasing amounts of

1 electric vehicles and renewable to assess their impacts
2 and to see if not only traditional methods of voltage
3 control, but also smart grid technologies such as energy
4 storage and solid state dynamic voltage regulators and
5 photovoltaic inverter for reactive power dispatch
6 capability could help the utility to maintain conservation
7 voltage reduction limits. Conservation voltage reduction
8 limits have been shown in California to have significant
9 energy savings, and they would like to keep those if we
10 move forward with the smart grid.

11 And that basically sums it up. I'm available for
12 any questions.

13 CHAIRPERSON WEISENMILLER: Valerie.

14 MS. WINN: Just a few quick comments. Did want
15 to thank the Commission for their support of this project.
16 And we did want to note that we're going to be working
17 with Cal State Sacramento's Smart Grid Center on this
18 project. And we're hoping through this project to really
19 learn about how the voltage impacts -- you know, on our
20 distribution system, how are we going to handle those with
21 higher penetrations of PV, which is an area we've been
22 struggling with over the last year. How do we learn more
23 about some of these issues before we actually put policies
24 in place.

25 So we're looking forward to this feasibility

1 analysis of what are the possible solutions and look
2 forward to sharing the information with Commission later.
3 Thank you.

4 CHAIRPERSON WEISENMILLER: Thank you.

5 Commissioners, any questions for Valerie or for
6 staff?

7 COMMISSIONER MC ALLISTER: Just a comment, maybe
8 a question. This is hugely valuable. All the utilities
9 and stakeholders have been struggling with what the
10 realities here are and let's get the facts and figure out
11 what -- under different scenarios what the penetration
12 limits ought to be, what the real impacts are in practical
13 terms.

14 I guess one question I would have is there a --
15 say on a given circuit, is there built into the plan
16 understanding sort of what the end of the circuit looks
17 like more towards the center of it or something like that,
18 sort of the locational issues here are actually important
19 and you can't really ignore them. And that's a good part
20 of the learning peak. You can have an electricity project
21 like this. The end of the line is going to be very
22 different from more in towards the substation part of that
23 circuit. So -- yeah

24 MR. PRATT: Actually, yes. That is going to be
25 part of the project. The distribution system as it's

1 being modeled, it's the locational aspects about where
2 best to put the technologies, such as energy storage, come
3 into play.

4 And what's significant about this is the PIER
5 program in Energy Technology Systems Integration can do a
6 number of things in this area, for example -- and this is
7 why it's important to the utilities such as San Diego Gas
8 and Electric, Pacific Gas and Electric, Southern
9 California Edison, have been very proactive in looking
10 forward to meeting the 2020 goals of 33 percent renewables
11 and have been developing these smart grids demonstrations
12 with us and research efforts.

13 One of the areas, for example, I'd like to
14 highlight for San Diego is they are specifically looking
15 at whether it's better to take and mitigate some of the
16 renewables and EVs using storage at the 240 volt side of
17 the transformer down at the end of the feeder or along
18 the -- distributed along the feeder versus placing that
19 energy storage up at the head end at the feeder at the
20 substation level.

21 And I would be happy to talk more about this if
22 you would like to get more involved with some of our
23 research efforts.

24 COMMISSIONER MC ALLISTER: That would be great.
25 I don't want to -- I want to respect everybody's time,

1 including the other Commissioners. So I don't want to dig
2 down too deep in this. But I'm very interested in this
3 stuff, and particularly some of the ways PG&E interacts
4 with the utility side issues. And I think the inverter
5 that can supply ancillary services is a great way to do
6 that. So would be interested in really digging into the
7 scope of this project a little bit and seeing what's what.

8 MS. WINN: We're looking forward to these results
9 as well because each circuit is different. And certainly
10 our experience in Northern California I think is somewhat
11 different from what we might be seeing in the southern
12 part of the state. So this will really help inform our
13 understanding.

14 And again, this is a feasibility study. And
15 we're hoping the results will then lead to identification
16 of testing and other pilot programs with potential
17 solutions to the voltage issues. So a critical first
18 step.

19 COMMISSIONER MC ALLISTER: Great. Thank you.

20 Make a motion, finally. This is Number 25.
21 Motion to approve Item 25.

22 COMMISSIONER DOUGLAS: Second.

23 CHAIRPERSON WEISENMILLER: All those in favor?

24 (Ayes)

25 CHAIRPERSON WEISENMILLER: This item passes

1 unanimously.

2 So 26, California Institute for Energy and the
3 Environment 26 and 27.

4 MR. LEVY: Commissioners, I believe Commissioner
5 Peterman has recused herself on Items 26 and 27, assuming
6 the Energy Institute at Haas is a person within the
7 meaning of Section 87450. Commissioner Peterman's recusal
8 and resign ends on May 13th of this year.

9 COMMISSIONER PETERMAN: May 13th is my last
10 recusal.

11 CHAIRPERSON WEISENMILLER: Thank you, Michael.
12 Jaime, do you want to do these combined or
13 separately?

14 MR. PATTERSON: These two I'd like to do
15 separately. 26 is very similar to Number 25. It happens
16 to be collecting data across all of California utilities
17 using the same tactic from 25, only it's measuring what's
18 existing out there. So that way we can get a base line
19 for the impacts of electric vehicles and also renewables.
20 This will help feed into the modeling effort at PG&E we
21 just talked about. So those two projects are very closely
22 related.

23 And I have letters of recommendation from San
24 Diego and from PG&E, Pacific Gas and Electric, on these
25 projects. They're very supportive. All the utilities

1 actually are quite supportive of our research on the
2 distribution area and moving toward the smart grid here in
3 California.

4 CHAIRPERSON WEISENMILLER: Could we get these
5 letters into the record?

6 MR. PATTERSON: Do you want me to read them?

7 CHAIRPERSON WEISENMILLER: No, I just want them
8 submitted for the record.

9 MR. PATTERSON: Oh, okay.

10 COMMISSIONER DOUGLAS: While Mr. Patterson hands
11 the letter to the Executive Director to get them on the
12 record, I just want to say it looks like a really valuable
13 project. I don't know if any Commissioners have
14 questions, but I will make a motion to approve Item 26.

15 COMMISSIONER MC ALLISTER: I'll second.

16 CHAIRPERSON WEISENMILLER: All those in favor.

17 (Aye)

18 CHAIRPERSON WEISENMILLER: Item 26 passes
19 unanimously.

20 Let's go onto Item 27, California Institute for
21 Energy and Environment. Possible approval of Contract
22 500-11-021 for 1.2 million with Regents of the University
23 of California on behalf of the California Institute for
24 Energy and Environment. And this is PIER electricity
25 funding. Jaime again.

1 MR. PATTERSON: Okay. Item 27, this is the final
2 phase of a large research effort that we have in
3 underground cable diagnostics and condition monitoring.

4 The University of California has been for some
5 time developing various sensors and other diagnostic means
6 to determine the condition of underground cables.

7 California has about 60,000 miles of underground
8 cables, and we know from experience from the utilities
9 that have helped with this that about 75 percent of them
10 are good and 25 percent of them are bad. Unfortunately,
11 we have no way of really telling which is which at this
12 time, unless you take them out. And the cost of taking
13 them out is so expensive that you just replace the cable.

14 To help determine the condition so that way we
15 can save money and hopefully do a better job of
16 maintaining a reliable underground system, the University
17 of California at Berkeley has developed some diagnostic
18 systems. And we are going to do in field testing and then
19 go onto commercialization. And we have letters of
20 support, of course, from San Diego Gas and Electric,
21 Pacific Gas and Electric, and Agilent Technologies. They
22 have been great supporter throughout the project in
23 helping us with the diagnostic tools themselves and a
24 place they will actually manufacturer those here in
25 California at their Santa Rosa facility should they prove

1 productive.

2 With that, that just about sums that one up as
3 well. And I can answer any questions that you may have.

4 CHAIRPERSON WEISENMILLER: Thank you. Let's get
5 the letters into the record.

6 And we'll note one utility that they had
7 discovered one that was defective that was underground.
8 They knew exactly how much of the cable had been installed
9 but not where. Certainly these type of devices could be
10 quite helpful. I understand Mark Pierpoint is on the
11 line. He's there if we have questions.

12 COMMISSIONER MC ALLISTER: I have a basic
13 curiosity. Agilent obviously manufacturers a lot of
14 equipment like this. I'm assuming it's resistant capacity
15 test. But anyway. We don't have to resolve the technical
16 issues right now.

17 CHAIRPERSON WEISENMILLER: Actually, no. Since
18 we have the gentleman on the line, let's get the answer.

19 COMMISSIONER MC ALLISTER: What basic description
20 of the device is.

21 CHAIRPERSON WEISENMILLER: Mr. Pierpoint.

22 MR. PIERPOINT: So yes, if you can hear me okay.

23 So just very briefly, it's actually a
24 non-innovative microwave technique that we use to not only
25 identify salt location but to position that salting

1 distance. So if an operator is diagnosing a particular
2 cable, they know exactly how far away from a particular
3 trench they can dig.

4 I know that U.C. Berkeley are also investigating
5 several other possible diagnostic methods as well as part
6 of this and obviously correlating those results. It is
7 essentially a microwave technique. And the nice piece is
8 that we've been able to miniaturize a technology there
9 over the last several years with research done out of our
10 Santa Rosa facility and able to provide a hand-held device
11 that allows this measurement to be made. And the
12 University of California have been great to work with in
13 terms of providing the interfacing needed to be able to do
14 this safely on high voltage cables.

15 CHAIRPERSON WEISENMILLER: Great.

16 COMMISSIONER MC ALLISTER: No further questions.
17 Thanks a lot. That's very helpful.

18 So I'll move to approve Item 27.

19 COMMISSIONER DOUGLAS: Second.

20 CHAIRPERSON WEISENMILLER: All those in favor?
21 (Ayes)

22 CHAIRPERSON WEISENMILLER: Passes unanimously.

23 Let's go onto Item Number 28, University of
24 California Davis. Possible Approval of Contract
25 500-11-020 for \$2 million with University of California on

1 behalf of Davis campus. And this is PIER electricity
2 funding.

3 COMMISSIONER MC ALLISTER: I'll recuse myself
4 from this one. The California Center for Sustainable
5 Energy is mentioned in this item and is a sub to U.C.
6 Davis. That's my former employer, and I will step down
7 from this item.

8 MR. LEVY: Thank you.

9 MS. CLOSSON: Good afternoon, Commissioners.

10 I'm Cheryl Closson with the Research and
11 Development Division.

12 This contract before you is a 34-month \$2 million
13 interagency agreement with U.C. Davis for renewable energy
14 technical assessments in the solar biomass off-shore wind
15 small hydro and geothermal energy resource areas.

16 As you know, California has established ambitious
17 goals for renewable energy use. California energy
18 developers, utilities, industries, and government agencies
19 need current information on the major renewable energy
20 resources, technologies, and economies in order to reach
21 those goals, take advantage of deployment opportunities
22 and address potential challenges.

23 The research to be completed under this contract
24 is designed to help address some of the complex issues
25 related to renewable energy deployment and provide

1 renewable energy resource and integration data needed by
2 developers, utilities, agencies, and the public.

3 The contract's technical tasks were identified
4 from recommendations made by the PIER Advisory Board's
5 renewable energy groups and the Commission's 2011
6 Bioenergy Action Plan. The research to be undertaken
7 includes updates to existing resource data, feasibility
8 assessments for collocating renewable energy facilities,
9 integrated assessments of renewable energy technology
10 options, including biogas cleanup technologies, and
11 economic feasibility evaluations of the technologies
12 considered.

13 Thank you very much for your consideration today,
14 and we request your approval of this contract.

15 CHAIRPERSON WEISENMILLER: Thank you.

16 Commissioners, any questions or comments?

17 COMMISSIONER PETERMAN: No. I would just say I
18 actually had a good meeting with U.C. Davis a couple
19 months ago talking about this type of work, and I'm
20 supportive.

21 So I'll make a motion on Item Number 28.

22 COMMISSIONER DOUGLAS: Second.

23 CHAIRPERSON WEISENMILLER: All those in favor?

24 (Ayes)

25 CHAIRPERSON WEISENMILLER: This item passes

1 unanimously. Thank you.

2 Number 29, Sacramento Municipal Utility District.
3 Possible Approval of Agreement PIR-11-005 for a Grant of
4 \$500,000 to Sacramento Municipal Utility District. These
5 are ARRA funds -- this is a cost share for ARRA funds and
6 PIER electricity funding. Rizaldo Aldas.

7 MR. ALDAS: Good afternoon, Commissioners.

8 My name is Rizaldo Aldas with the Energy Research
9 and Development Division.

10 This proposed agreement with the Sacramento
11 Municipal Utility District are the next three items, Items
12 30, 31, 32, which will be presented to you separately, are
13 all part of the American Recovery and Reinvestment Act and
14 part of the competitive grants solicitation designed to
15 provide much funding for applicable California projects,
16 energy-related research and development. The intent is to
17 maximize the federal dollars of ARRA to California
18 entities.

19 For this particular project with SMUD, the
20 agreement will provide cost-share \$500,000 through DOE
21 ARRA award of 5,050,000 dollars. The match funding from
22 non-DOE sources, that is SMUD and other partners, amount
23 to about \$10.1 million so that the cost share leverage
24 about \$15 million.

25 The SMUD projects under the Community Renewable

1 Energy Employment Program, the programs to support the
2 widespread deployment of renewable energy technologies
3 throughout communities on a sustained basis. The specific
4 goal of the project here is to demonstrate and deploy
5 renewable energy technologies of an estimated 5.2
6 megawatt, bringing clean renewable energy to the
7 electricity market.

8 This project will be conducted in two phases.
9 The first phase, which is the scope of today's request,
10 involves a task on the bioenergy subprojects. These are,
11 number one, the co-digestion of fats, oils, and grease,
12 liquid, food waste, and COH, at the Sacramento Regional
13 Wastewater Treatment facilities. The biogas that will be
14 generated from that will be used in a combined cycle
15 farmland to generate about three megawatts.

16 The second project is the installation of the
17 anaerobic digestion at the New Hope Dairy in Galt,
18 California. Again, the biogas from that will be used to
19 run an engine that could generate 450 kilowatts in the
20 combined heat and power generation.

21 And the third project is the installation of
22 anaerobic digestion system at the Van Warmerdam Dairy in
23 Elk Grove. And again, the biogas from that will be used
24 to generate 250 kilowatt in combined heat and power
25 application.

1 The second phase of the project -- which will be
2 discussed later in the business meeting -- if you approve
3 the solar energy project and that will install about 1.5
4 megawatts of PV.

5 Some of the estimated benefits from the project
6 include the additional generating capacity from the
7 renewable energy estimated at about 37 kilowatt hour
8 reduction in carbon dioxide emissions estimated about
9 24,000 tons per year and creation of additional jobs of
10 about 200.

11 With that, I would like to acknowledge Mr. Tim
12 Tutt from SMUD to answer any questions you may have.

13 I request approval and I'm here to answer any
14 questions. Thank you.

15 CHAIRPERSON WEISENMILLER: Thank you.

16 Do you want to say anything?

17 MR. TUTT: I'm good.

18 CHAIRPERSON WEISENMILLER: It's a good project?

19 MR. TUTT: Yes.

20 COMMISSIONER DOUGLAS: On the basis of Mr. Tutt's
21 assertion and also of the great staff presentation and the
22 materials that we have here, I move approval on Item 29.

23 COMMISSIONER PETERMAN: I'll second.

24 CHAIRPERSON WEISENMILLER: All those in favor?

25 (Ayes)

1 CHAIRPERSON WEISENMILLER: Item 29 passes
2 unanimously.

3 Let's go the Item 30, Los Angeles Department of
4 Water and Power. Possible Approval of Agreement
5 PIR-11-009 for a grant of one million dollars. This is
6 again our matching ARRA funds. And this is PIER
7 electricity funding. Avtar Bining.

8 MR. BINING: Afternoon.

9 My name is Avtar Bining. I manager in the
10 Storage Program and the American Recovery and Reinvestment
11 Act Projects on Smart Energy Storage at Energy Commission.

12 Also Mr. Emil Abdelshehid from Los Angeles
13 Department of Water and Power is within the business
14 meeting on the phone.

15 Under this agreement, Los Angeles Department of
16 Water and Power, also known as LADWP, will install and
17 demonstrate a range of smart grid technologies. The
18 demonstration projects include collecting data on the
19 health of human and variety of assessments, testing the
20 next generation of cyber security technologies, and
21 examining the effect of plug-in hybrid electric vehicles
22 on the grid, and demonstrating how the smart grid can be
23 applied to the demand response programs. The project is a
24 partnership LADWP and University of Southern California,
25 the University of California Los Angeles, and the Jet

1 Propulsion Laboratory.

2 The surrounding neighborhoods, city facilities,
3 and LADWP labs will be used as testing grounds for this
4 research.

5 The lessons learned and results from this
6 research will be available to other utilities in
7 California and the nation.

8 The expected benefits include reduced emissions,
9 lower electricity costs and user liability and greater
10 security and flexibility to accommodate new energy
11 technologies including renewable and distribution energy
12 resources.

13 This agreement is an essential part of LADWP's
14 \$120.6 million project called Smart Grid Demonstration.
15 For this project, LADWP received \$60.3 million in American
16 Recovery and Reinvestment Act from the U.S. Department of
17 Energy. LADWP is contributing \$59.3 million for this
18 project. The term of this agreement is about 40 months.

19 I request your approval of this. And we will be
20 happy to answer your questions. Thank you.

21 CHAIRPERSON WEISENMILLER: Thank you.

22 I would note the USC event on Thursday. And part
23 of that talked about the cyber security issues and
24 certainly that there seems to be developing a very strong
25 center on these issues and would note this week there's

1 been some degree of press coverage of the supposed cyber
2 security tax on the systems. So certainly this is a very
3 important topic. And we were obviously quite happy to be
4 able to help our utilities to come in with the ARRA money.

5 Certainly appreciate Mr. Abdelshehid being on
6 line from LADWP if you have any comments.

7 MR. ABDELSHEHID: Well, regarding the cyber
8 security, yes, we are definitely making some major moves
9 in next generation of cyber security, trying to
10 demonstrate grid resilience against cyber attacks,
11 maintain system integrity, and maintain the security of
12 all of our data management.

13 Being that we are introducing so many other entry
14 points into the system, we need to take these steps to
15 make sure our grid is as resilient and as strong and
16 reliable as can be. And definitely cyber security with
17 these efforts will help us get there.

18 CHAIRPERSON WEISENMILLER: Thank you.

19 Commissioners, any questions or comments?

20 COMMISSIONER MC ALLISTER: I'll just make a
21 comment having just the other day been on the other side
22 of the project in a funding stream in dealing with ARRA
23 funds and all that kind of stuff, really having the
24 Commission be so open to providing match funding is really
25 essential for DOE to have the confidence to work for it.

1 So that hand over to the Energy Commission and
2 DOE is essential. We're seeing a lot of that play out in
3 the final phase of ARRA funding. But I think the
4 marketplace will really benefit from this match approach.

5 So I would motion to approve Item 30.

6 COMMISSIONER DOUGLAS: Second.

7 CHAIRPERSON WEISENMILLER: All those in favor?

8 (Ayes)

9 CHAIRPERSON WEISENMILLER: Item 30 passes
10 unanimately. Thank you.

11 Let's go onto 31, Modesto Irrigation District.
12 Possible Approval of Agreement PIR-11-015 for a grant of
13 \$149,315 to Modesto Irrigation District. Again this is
14 ARRA match funds coming out of PIER electricity funding.

15 Steve Ghardiri.

16 MR. GHARDIRI: Yes. Good afternoon, Mr. Chairman
17 and Commissioners.

18 I'm Steve Ghardiri. And I'm at the Energy
19 Research Division, Office of Electricity System
20 Integration Office.

21 Modesto Irrigation District, Item 31, is seeking
22 the grant for \$149,315 for improved communication and
23 control. This award will be cost shared for the recipient
24 by a \$1,493,000 from the American Recovery and Investment
25 Act of 2009, better known as ARRA, from the Department of

1 Energy. And the Modesto Irrigation District has already
2 committed and has spent some of it, about \$2 million of
3 their own funds as well.

4 The objectives for this ARRA project grant is,
5 number one, to operate distribution equipment for improved
6 communication and compatibility with the smart meters that
7 they have installed and some are being installed. And
8 number two is to facilitate the customers access to and
9 use of their load profile. These are data while
10 implementing a customer portal interface so that they can
11 get more smarter information.

12 And I seek your approval of this item.

13 CHAIRPERSON WEISENMILLER: Thank you.

14 I believe we have a gentleman on the line from
15 Modesto Irrigation District.

16 Do we have further questions?

17 MR. HONDEVILLE: This is Bob. Just here to
18 answer any questions.

19 COMMISSIONER DOUGLAS: No questions.

20 This sounds like another very good project. I
21 don't know if the person who just came on the line would
22 like to say anything about it that wasn't covered in the
23 summary, but I'm certainly very supportive of moving
24 forward with this.

25 COMMISSIONER PETERMAN: I'm happy to see this and

1 other projects that are focused on upgrades to the
2 distribution system that will make more suitable to use
3 both DG and smart grid. And since we have these upgrades
4 anyway to the system -- glad to see all this happening at
5 the same time. Very supportive.

6 I will motion this item, Item 31.

7 COMMISSIONER DOUGLAS: Second.

8 CHAIRPERSON WEISENMILLER: All those in favor?

9 (Ayes)

10 CHAIRPERSON WEISENMILLER: This item passes
11 unanimously. Thank you.

12 Let's go on to Item Number 32, Burbank Water and
13 Power. Possible Approval of the Agreement PIR-11-017 for
14 a grant of one million dollars to Burbank Water and Power.

15 This is again matching funds for ARRA money. And
16 Steve again.

17 MR. GHADIRI: Yes, Mr. Chairman. That is for
18 Burbank Water and Power.

19 This is -- I'm seeking the possible approval of
20 this agreement for a grant of one million dollars to BWP
21 to demonstrate integration of smart grid technologies.

22 The Commission's award with the contribution to
23 Burbank as they have \$20 million from ARRA from Federal
24 Government U.S. Department of Energy. And they also have
25 provided \$39 million and committed in the matching funds.

1 The total cost of this smart grid project is
2 \$62.7 million.

3 This research will help develop a comprehensive
4 and secure smart grid for California. And this project
5 encompasses many different sectors. It has a distribution
6 automation, energy storage. It even has a micro grid in
7 it. And basically demonstrates the integration of the
8 smart grid technology to improve the reliability of the
9 state's electrical grid and use of existing transmission
10 assets. It will also help the integration of renewable
11 energy resources into the grid and onto the grid. And key
12 components of this research include secure WI-FI network
13 and metered data management system, advanced smart meters,
14 and an energy demand management system. They also get
15 involved in cyber security, sir.

16 I seek your approval, please.

17 CHAIRPERSON WEISENMILLER: Thank you.

18 Any questions or comments, Commissioners?

19 COMMISSIONER DOUGLAS: No. No questions or
20 comments.

21 Move Item 32.

22 COMMISSIONER MC ALLISTER: Actually, I have a
23 quick comment.

24 This seems a little bit unique because one of the
25 components it's focusing on optimizing the use of existing

1 transmission assets. So not just leaping into the
2 distribution grid, but also trying to raise the level to
3 even more aggregated place.

4 And I think that's really important for the long
5 term and even for the ISO job potentially down the road.
6 So that even just that component makes it very interesting
7 for me. But all the sub-components that you mentioned are
8 very necessary. And I think the integration of them is a
9 great project.

10 I'll second.

11 CHAIRPERSON WEISENMILLER: All those in favor?

12 (Ayes)

13 CHAIRPERSON WEISENMILLER: This item passes
14 unanimously. Thank you.

15 So Item Number 33, Southern California Gas
16 Company. Possible approval of Agreement PIR-11-023 for a
17 grant of \$1,502,699. And this is PIER natural gas
18 funding.

19 MR. GUTIERREZ: Thank you, Commissioners, and
20 good afternoon.

21 I request your approval for \$1.5 million funding
22 agreement with Southern California Gas Company. This
23 agreement will be a 33-month duration with \$3.9 million in
24 match share.

25 This project, along with the energy project,

1 which precedes this agenda item were recommended for
2 funding through hybrid generation fuel flexible DG CHP CCH
3 solicitation.

4 The purpose of this competitive solicitation was
5 to fund research, development, and demonstration projects
6 that will advance the science and market penetration of
7 grid connected DG CHP CCH technologies and integrate
8 emerging multiple DG CHP CCH technologies, including
9 energy storage and fuel flexibility in diversified
10 applications.

11 This project research objective includes the
12 integration of a CHP system that consists of full-scale
13 3.3 megawatt reciprocating natural gas engine with a
14 thermal storage unit at a state-of-the-art greenhouse
15 located in Santa Maria, California. The CHP system will
16 provide all of the greenhouse's electrical demands. The
17 greenhouse is a 63-acre glass structure equipped with
18 climate controls that optimizes daytime and seasonal
19 temperatures, humidity, light and CO2 levels.

20 One of the innovative features of the project is
21 the use of CO2 from the engine's exhaust greenhouse CO2
22 levels, thereby accelerating plant photosynthesis. CO2
23 uptake will be closely observed by documenting any effects
24 on plant growth.

25 The harmful engine exhaust byproduct such as NOX,

1 CO, and VOCs will be treated and monitored below the local
2 air district's emission standards and the 2007 CARB air
3 emission levels for DG CHP systems.

4 The other novel aspect of this project is the use
5 of the engine's heat in a hot water thermal storage system
6 that will provide the greenhouse radiant heat during
7 clouded and cold weather conditions and during nighttime
8 hours to maintain a constant 70 degree temperature
9 24 hours a day, 365 days a year.

10 The economics assessment portion of this project
11 includes an evaluation of operational and capital cost,
12 shortening the time frame for grid interconnection and
13 implementation of a power purchase agreement with Pacific
14 Gas and Electric Company.

15 The proposed project plays well with
16 environmentally active greenhouse owners who sell their
17 produce to environmentally conscious consumers. If you
18 have any questions, I would be pleased to entertain them
19 right now.

20 CHAIRPERSON WEISENMILLER: Thank you.

21 Commissioners, any questions or comments?

22 COMMISSIONER DOUGLAS: No questions or comments.

23 I think this looks like a great project.

24 Move approval of for Item 33.

25 COMMISSIONER PETERMAN: I agree. A very good

1 project. I'll second.

2 CHAIRPERSON WEISENMILLER: All those in favor?

3 (Ayes)

4 CHAIRPERSON WEISENMILLER: This item passes
5 unanimously.

6 Item Number 34, Zere Energy and Biofuels, Inc.
7 Possible Approval of Agreement PIR-11-016 for a grant of
8 \$998,346. And this is PIER natural gas funding. Mike
9 Kane.

10 MR. KANE: Thank you. I'm Mike Kane with the
11 Energy Generation Research Office.

12 This project is Zere Energy and Biofuels follows
13 worked performed under the Energy Innovation Small Grant
14 Program to demonstrate the feasibility of an air
15 independent internal oxidation process where methyl oxides
16 are used to oxidize fuel for the production of heat and
17 electricity in lieu of burning that same fuel in
18 atmospheric air.

19 In that project, researchers successfully
20 demonstrated at the laboratory scale open cycle oxidation
21 and regeneration processes that were capable of burning
22 methane without any significant gaseous emissions to the
23 atmosphere.

24 This is possible because the exhaust from the
25 fuel combustion consists only of carbon dioxide and steam,

1 both of which can readily be separated for recycling or
2 sequestration. Regeneration process, which on the other
3 hand does occur in the presence of air, occurs below NOX
4 formation temperatures.

5 The current research will expand on the prior
6 findings in three ways. First, the researchers will
7 perform laboratory scale testing to extend thermal dynamic
8 and emissions performance results to a variety of biogas
9 and biosolid solid fuels typically available in
10 California.

11 In addition to achieving NOX formation well below
12 ARB standards, the researchers expect tests will verify
13 capture of sulfur compounds in the reactor fluidized bed
14 as might be needed in the case of digester gases or other
15 sulfur rich fuels.

16 Second, the project team will model and develop a
17 biogas capable closed loop reactor system for supporting
18 continuous electricity generation or heating.

19 The plan approach will employ two reactors
20 interconnected by shuttle valves and control systems to
21 alternately act as oxidation and generation vessels so to
22 supply continuous heat and steam for the desired
23 application.

24 Third, the project team will build and
25 demonstrate at the laboratory scale in prototype

1 continuous reactors system integrated heat exchangers and
2 the turbine generator for demonstrating electricity
3 generation. In addition to verifying emissions and
4 physical form of the continuous cycle reactor models,
5 prototype demonstration is expected to yield operational
6 and life cycle data that will be valuable for assessing
7 the commercialization potential of the scaled up system.

8 If successful, the air independent internal
9 oxidation process will achieve NOX emissions of more than
10 one order of magnitude lower than the current ARB
11 standards and capture other gaseous and particulate
12 pollutants as well. Because the technology will be able
13 to accept a wide range of renewable fuels, it will be well
14 suited for deployment in non-attainment or heavily
15 polluted agricultural areas, such as the Central Valley,
16 for reducing uncontrolled methane and organic gas
17 emissions or landfills.

18 We are requesting approval of this agreement.
19 And I'm more than happy to answer any questions you may
20 have.

21 CHAIRPERSON WEISENMILLER: Thank you.

22 Commissioners, any questions or comments?

23 COMMISSIONER PETERMAN: I would just say we have
24 had a couple of items on the agenda today with combined
25 heat and power. And combined heat and power is a large

1 part of the Governor's Energy Plan. The target of 6500
2 megawatts of CHP, this is an area the Commission has been
3 looking at increasingly so after the settlement. So I'm
4 glad to see advances in this area.

5 CHAIRPERSON WEISENMILLER: Thank you.

6 Probably should note at this point the CHP Task
7 Force the Governor's Office has set out I'm co-Chair of.

8 So certainly want to move toward progress.

9 COMMISSIONER MC ALLISTER: Also very nice to see
10 the Small Grants Program providing value for a scale-up
11 and follow-up. Also within the out-of-compliance air
12 districts, obviously this is very important for NOX
13 because of the low NOX issues. To relevant in lots of
14 different ways. Good project.

15 COMMISSIONER DOUGLAS: So with that, I will move
16 approval of Item 34.

17 COMMISSIONER MC ALLISTER: Second.

18 CHAIRPERSON WEISENMILLER: All those in favor?

19 (Ayes)

20 CHAIRPERSON WEISENMILLER: This item passes
21 unanimously. Thank you.

22 Item 35, Lawrence Berkeley National Laboratory.
23 Possible Approval of Contract 500-11-024 for \$600,000 U.S.
24 Department of Energy, Lawrence Berkeley National
25 Laboratories. This is part of the matching funds for \$16

1 million WESTCARB award. This is PIER natural gas funding.

2 Joe O'Hagan.

3 MR. O'HAGAN: Good afternoon, Commissioners.

4 I'll be speaking on this project and the following two.

5 As you know, geologic carbon sequestration has
6 been identified as a potential significant strategy to
7 reduce greenhouse gas emissions. And in California, the
8 deep sedimentary basins here in the Central Valley have
9 been identified as a prime geologic carbon sequestration
10 source, a major challenge to full-scale deployment of
11 geologic carbon sequestration. However, there has been the
12 potential for impacts to ground water quality.

13 And geologic carbon sequestration can effect
14 groundwater in several different ways. One major way is
15 because of the large increase in pressure in the aquifers
16 where the CO2 is stored effects a much greater area than
17 the actual CO2 plume. And this may effect aquifer
18 characteristics, recharge areas, things like that,
19 displaced saltwater, brine, into freshwater aquifers. And
20 PIER has a project going on addressing that issue
21 currently.

22 The other major mechanism for sequestration
23 effects on groundwater is, of course, interactions with
24 the CO2 with organic compounds, especially with
25 hydrocarbons and toxic constituents such as uranium or

1 arsenic.

2 So, you know, the concern here in California is,
3 of course, that the Central Valley is very dependent on on
4 groundwater supplies.

5 So the proposed project would evaluate how the
6 carbon sequestration would interact with groundwater
7 supplies and the organics and inorganic constituents all
8 the way from the storage aquifer to the surface, basically
9 following a hypothetical leak.

10 These interactions as super critical CO2 very,
11 very good solvent for organic compounds and those strata,
12 especially in the San Joaquin Valley, there are a lot of
13 the constituents that would be getting into the water.

14 In addition, with the organic compounds mixed in
15 the CO2, you get different mobilization of toxic
16 chemicals. Currently, about 16 percent of the wells in
17 the San Joaquin Valley exceed drinking water standards for
18 uranium. It's a large concern.

19 So this project would collect strata sediment
20 samples and water quality issues from different bore hole
21 efforts here in California and then run lab tests,
22 including the high pressure CO2 to analyze how these
23 constituents would interact and react.

24 And as I said, they follow all the way from the
25 deep storage aquifer up to the surface. There is things

1 such as low salinity CO2 under high pressure start to
2 reach the surface. The pressure is reduced and sometimes
3 in some of the reactions are reversed.

4 This project is leveraging on previous Department
5 of Energy research, but it does provide a
6 California-specific basis for the water quality issues.

7 And as Commissioner Weisenmiller said that this
8 project is identified as a match for the Energy
9 Commission's \$16 million grant application to DOE for
10 WESTCARB.

11 I'm available for any questions, if you have any.

12 CHAIRPERSON WEISENMILLER: Thank you.

13 I would note obviously on impacts of CO2, we
14 focus a lot on climate change. But I think one of the
15 most significant from the science perspective is the
16 acidification of the oceans. It's a very good
17 presentation by the Long Beach Aquarium director two years
18 ago. It's still on line. But he stated the top three
19 things he worried about for the ocean. This was very
20 serious. So certainly having the acidification of the
21 groundwater could again have a fairly substantial
22 implications.

23 So I think this -- and again certainly we've gone
24 through this in the review process, but it's certainly the
25 impacts of CO2 on the oceans on groundwater is very, very

1 significant from a scientific perspective.

2 COMMISSIONER DOUGLAS: I agree. I will move -- I
3 agree with the Chair's comments. And I've also followed
4 the development with interest and concern. Move Item 35.

5 COMMISSIONER PETERMAN: I'll second.

6 CHAIRPERSON WEISENMILLER: All those in favor?

7 (Ayes)

8 CHAIRPERSON WEISENMILLER: Item 35 passes
9 unanimately.

10 We're now going to segue into another group of
11 contracts all coming from one RFP, so for solicitation.
12 So first one is 36, Shawn Smallwood. Possible Approval of
13 Agreement PIR-11-022 for a \$716,596. This is PIER
14 electricity funding. And I think Joe will give us some
15 context for Items 36 through 41.

16 MR. O'HAGAN: Thank you, Chairman.

17 As background, the PIER environmental area
18 released this solicitation late last year entitled
19 "Addressing Environmental Issues for Clean Energy
20 Systems." This was a \$4.3 million solicitation made up of
21 both electricity and natural gas funding.

22 We had four topics that were addressed in this
23 solicitation. First one was removing environmental
24 barriers to renewable energy deployment.

25 The second topic was improving water --

1 COMMISSIONER PETERMAN: Excuse me. Can you speak
2 a bit more into the microphone?

3 MR. O'HAGAN: Sorry about that.

4 The first topic was removing environmental
5 barriers to renewable energy deployment.

6 The second one was research to improve water
7 conserving cooling technology for power plants.

8 The third topic was methane emissions from the
9 State's natural gas system.

10 And the fourth topic was beneficial uses of CO2.

11 We received 21 proposals. We received no
12 proposals on topic three, which was the methane emission
13 topic. And only one for the improvements to water cooling
14 technology for power plants.

15 So this proposal that I'm going to talk to you
16 about now was one of the six awarded. I'm going to speak
17 about this project and the following one. And then after
18 that, there will be two that will be addressed by Misa
19 Milliron and Guido Franco, while I address the next two.

20 The Smallwood proposal is to evaluate the
21 potential for bird collisions with the innovative wind
22 turbine design. The wind turbine is highly efficient, but
23 the manufacturers calls it a mixed emitter wind turbine
24 which has greater efficiency than most of your standard,
25 horizontal access turbines. But it has a key design that

1 has a shroud. And the thought is that being smaller that
2 it will be more visible to birds or bats and it would
3 reduce collisions. This study would verify whether that
4 is true or not.

5 Flow design working with some of the wind energy
6 developers in the Altamont Pass area will deploy from 10
7 to 15 of these turbines I believe. And then the study
8 would evaluate fatalities from these turbines as well as
9 the control using the traditional turbines and things.

10 The study also involves doing behavioral studies
11 in the Altamont area looking at bird and bat behavior
12 around turbines, both during the day and night. They'll
13 use a thermal camera to identify flying birds in the area
14 in the evenings. The benefits of the study would be not
15 only to address the flow designs of the turbines, but also
16 the behavioral information would be very important for
17 modeling future wind development in this area as well as
18 potentially other areas.

19 I'm available for questions if you have any.

20 CHAIRPERSON WEISENMILLER: Actually, I was trying
21 to figure out -- I know I've heard of a similar design. I
22 wasn't quite sure if it was the same company, but one I
23 think Jim Walker and John Howe had developed. I was just
24 wondering if that was the same --

25 MR. O'HAGAN: There are similar -- there are

1 companies with similar designs, but this one did get \$8
2 million grant ARE from DOE to study.

3 CHAIRPERSON WEISENMILLER: So maybe you want
4 to -- obviously, if we can reduce avian impacts from the
5 Altamont pass that would be a big --

6 COMMISSIONER DOUGLAS: It would be a huge
7 benefit. Move Item 36.

8 COMMISSIONER PETERMAN: I'll second.

9 CHAIRPERSON WEISENMILLER: All those in favor?

10 (Ayes)

11 CHAIRPERSON WEISENMILLER: 36 passes unanimously.
12 Thank you.

13 37, John Maulbetsch. And that's agreement
14 PIR-11-024, \$749,577. PIER natural gas funding. Joe.

15 MR. O'HAGAN: Thank you.

16 As you are aware, using air cool condensers from
17 power when cooling is what's referred to as dry cooling
18 can save up to about 95 percent of the water a power plant
19 uses wet cooling would utilize. There are, however,
20 performance penalties associated with using dry cooling.
21 In particular, high ambient temperatures and winds can
22 reduce the performance of the air cooling condenser,
23 reduce power plant generation, and actually lead to, say,
24 under a gust of wind sharp pressure increases which make
25 the turbines shut off. So it can lead to shutting down

1 the power plant for a while.

2 It's been documents that wind speeds on a hot day
3 of about 20 miles an hour can cause about a 15 megawatt
4 reduction in power plant production. And so that's not a
5 real significant wind speed. So you can imagine that
6 occurs quite often over the course of a year.

7 As you know, air cooling condensers are elevated
8 fairly high off the ground to enhance air movement up to
9 the fans, which are below the condenser, to help move the
10 air through the condenser. And many power plants to try
11 to deal with wind effects on the air cooling condenser set
12 up these wind barriers or wind fences. And these are very
13 much an ad hoc affairs that are not sanctioned by the air
14 cooling condensers vendor. Lots of time, they look like
15 chain-linked fence with fabric hung on them. And there's
16 really no standards for evaluating where they should be,
17 how they should be designed.

18 So this proposed project is looking at doing
19 numerical modeling, which is computational fluid dynamic
20 wind tunnel modeling, collecting data from actual field
21 studies to evaluate what's the best options that address
22 wind effects on these air cooling condensers through
23 utilizing these wind barriers.

24 The applicants soon think they can reduce that 15
25 megawatt penalty by maybe half if we can properly site

1 these wind barriers under air cooling condensers.

2 And if you have any questions, I would be happy
3 to answer them.

4 COMMISSIONER MC ALLISTER: Seems like a valuable
5 plan.

6 COMMISSIONER DOUGLAS: I think this is another
7 really valuable project. I don't know if other
8 Commissioners might have comments. I'll start with a
9 motion for Item 37.

10 COMMISSIONER PETERMAN: I'll second.

11 CHAIRPERSON WEISENMILLER: All those in favor?

12 (Ayes)

13 CHAIRPERSON WEISENMILLER: This item passes
14 unanimously.

15 Number 38, Randel Wildlife Consulting, Inc.
16 Possible Approval of Agreement PIR-11-012 for a grant of
17 \$606,257. And this is PIER electricity funding. Misa
18 Milliron.

19 MS. MILLIRON: Good afternoon. I'm Misa Milliron
20 from the PIER environmental area.

21 Before I begin with the background, I do have a
22 correct to the match amount on the agenda. The correct
23 amount is \$29,710. Looked like there was a typographical
24 error there.

25 Scientific studies are needed to document base

1 line requirements for sensitive species likely needed to
2 be effected by utility-scale solar projects. One such
3 species triggered as sensitive by the Department of Fish
4 and Game is the desert kit fox. Ecological and
5 demographic data are significantly lacking for this
6 species, and impacts to desert kit fox and disease
7 prevalence have been issues at recent solar siting
8 projects.

9 Base line scientific information is necessary to
10 more accurately evaluate and assess the potential impacts
11 of solar projects to desert kit fox populations at the
12 local, regional, and range-wide levels. This agreement is
13 a collaborative project between Randel Wildlife Consulting
14 and the Department of Fish and Game. It would quantify
15 desert kit fox movement in home ranges and desert areas
16 with existing and planned future solar developments and
17 provide insights regarding disease prevalence and genetic
18 flow of populations.

19 Forty desert kit foxes will be captured and
20 fitted with radio collars in the Chuckwalla Valley in
21 eastern Riverside County. These individuals will be
22 tracked three times a week for a period of 24 months to
23 measure their daily and seasonal movements and seasonal
24 and annual home ranges of individual kit foxes.

25 The researchers will also conduct disease testing

1 and conduct DNA sampling to study population genetics.

2 The project would provide scientific insights on
3 how large solar projects may affect the home range
4 movements, disease and mortality prevalence and genetic
5 flow of desert kit fox populations.

6 Such information will be very useful in future
7 CEQA analysis for determining potential impacts and
8 appropriate mitigation measures. I'm here to request
9 approval of this project and happy to answer any questions
10 you may have.

11 COMMISSIONER DOUGLAS: I'll just comment briefly
12 that both in the experience of permitting renewable power
13 plants, solar thermal power plants, and also desert energy
14 conservation plan work, the importance of accurate
15 baseline data and comprehensive baseline data on the
16 health of the species and location of the species and so
17 on is really critical. So I strongly support this and
18 move approval of Item 38.

19 COMMISSIONER MC ALLISTER: Second.

20 CHAIRPERSON WEISENMILLER: All those in favor?

21 (Ayes)

22 CHAIRPERSON WEISENMILLER: Item 38 passes
23 unanimously.

24 39, Redlands Institute, University of Redlands.
25 Possible Approval of Agreement PIR-11-013 Redlands

1 Institute and University of Redlands. I believe it's
2 563,776 of PIER electricity funding.

3 MS. MILLIRON: That's correct. Thank you.

4 This is an agreement -- again another
5 collaborative agreement between the University of Redlands
6 and the Fish and Wildlife Services Desert Tortoise
7 Research Office.

8 And I have another correction on the match
9 amount. The amount is \$62,970. As you know, a major
10 concern for permitting utility-scale solar projects has
11 been impacts to the State and federally listed desert
12 tortoise.

13 The University of Redlands and the Fish and
14 Wildlife Service are developing a spatial decision support
15 system for recovery and management of the species.

16 The system primarily uses GIS data to quantify
17 the impacts and threats to tortoise populations and
18 identifies and prioritizes recovery actions that are most
19 likely to ameliorate those threats. This proposed
20 research leverages more than ten years of data and
21 collaborative research on the species as well as
22 significant investment in the system by the Department of
23 Defense, Fish and Wildlife Service, BLM, and the Energy
24 Commission.

25 This new project would improve impact and

1 recovery models to evaluate the effects of solar energy
2 development at the species at the project-specific scale,
3 including testing with actual solar project data and
4 provide sensitivity analysis, improving statistical
5 measures of uncertainty and allow the capability of
6 producing error bars and calculations. And it would
7 develop tools for cumulative effects evaluation, including
8 climate change effects, population fragmentation, and
9 recovery action portfolios.

10 This research would enable the Energy Commission
11 and other agencies to more rapidly and efficiently obtain
12 potential solar project impacts to the desert tortoise and
13 evaluate alternative mitigation scenarios. This would
14 reduce risk, uncertainty, and delay the permitting process
15 while maintaining environmental protection.

16 This project will provide input into the DRECP
17 and ultimately help reduce environmental conflict over
18 solar energy projects by providing timely access to
19 scientific information and decision support technology for
20 the desert tortoise in California.

21 Request approval and happy to answer any
22 questions on this project.

23 CHAIRPERSON WEISENMILLER: Thank you.

24 Commissioners, any questions or comments?

25 COMMISSIONER DOUGLAS: Another comment.

1 These tools that help support decision-making on
2 species are really valuable and the ability to model
3 impacts to desert tortoise connectivity and other needs of
4 the desert tortoise is -- I mean, there is some ability
5 that's actually pretty good. This will strengthen it
6 significantly.

7 So I move approval of Item 39.

8 COMMISSIONER PETERMAN: I would just echo
9 Commissioner Douglas' comments about the importance of
10 this proposal as well as the ones just mentioned in terms
11 of helping us to site renewables in real time as we deal
12 with siting cases. There are a number of questions that
13 will come up. And things are uncertain. And I applaud
14 the PIER program for identifying projects that really help
15 us wade through the current uncertainty as well as reduce
16 our risk.

17 I use this as an opportunity to say -- appreciate
18 Commissioners Douglas' leadership with the DRECP because
19 this is topic she's been working with in depth and
20 appreciate the good products that will come out of that
21 process that will facilitate siting renewables long term
22 in California.

23 I'll second that motion.

24 CHAIRPERSON WEISENMILLER: All those in favor.

25 (Ayes)

1 CHAIRPERSON WEISENMILLER: This item passes
2 unanimously. Thank you.

3 Item Oakbio, Inc. Possible Approval of Agreement
4 PIR-11-019 for a grant of \$474,843. This is PIER
5 electricity funding. Guido.

6 MR. FRANCO: Good afternoon.

7 My name is Guido Franco. I'm with the
8 environmental area in the PIER program.

9 This project -- actually this and the next one
10 has the objective to develop technologies that could be
11 used to take the CO2 status from power plants and convert
12 it into useful products.

13 So the first one with Oakbio, they have already
14 developed a technology as microbes that can convert the
15 CO2 through acid from cement plants and convert it to raw
16 materials that could be used for the production of
17 bioplastics and fuels.

18 So what they're going to be doing now is to
19 enhance the testing, do some bio-scale testing, but also
20 to start using fuel gases from natural gas burning power
21 plants. In the end, they will come out with a
22 technology -- with a feasibility study of how to bring
23 that technology to the marketplace in the future.

24 So I would be happy to answer any questions that
25 you may have.

1 CHAIRPERSON WEISENMILLER: Thank you.

2 Commissioners, any questions or comments?

3 COMMISSIONER PETERMAN: I have no questions or
4 comments. So I will move Item 40.

5 COMMISSIONER MC ALLISTER: I'll second.

6 CHAIRPERSON WEISENMILLER: All those in favor?

7 (Ayes)

8 CHAIRPERSON WEISENMILLER: This item passes
9 unanimately. Thank you.

10 Let's go on to Item 41, Kiverdi, Inc. Possible
11 Approval of Agreement PIR-11-025 for a Grant of \$747,126.
12 This is also PIER electricity funding. Guido.

13 MR. FRANCO: Yes. So this is a similar
14 technology using microbes. Different type of microbes
15 that react with CO₂ with hydrogen as input to produce
16 biodiesels or oils. It has been already tested at the
17 laboratory scale.

18 So again, what they're trying to do is move to
19 the pilot scale. In the end, they will come out again
20 with a business plan on how to bring their technology to
21 the marketplace. Kiverdi has a match funding, and they
22 already have \$587,000.

23 I would be happy to answer any questions that you
24 may have.

25 CHAIRPERSON WEISENMILLER: Thank you.

1 Commissioners, any questions or comments?

2 COMMISSIONER DOUGLAS: No questions.

3 This also looks like a really valuable project
4 and the sort of thing if this can be done and done at
5 scale and economically would be a real game changer.

6 So I'll move approval of Item 41.

7 COMMISSIONER PETERMAN: I'll second.

8 CHAIRPERSON WEISENMILLER: All those in favor of
9 Item 41?

10 (Ayes)

11 CHAIRPERSON WEISENMILLER: Item 41 passes
12 unanimously.

13 So we've finished this block of contracts. And
14 now we're moving to Lawrence Livermore National
15 Laboratory. Possible Approval of Contract 500-11-022 for
16 \$600,000, Department of Energy, Lawrence Livermore
17 National Laboratory. And this is PIER natural gas
18 funding.

19 MR. FRANCO: Yes, Commissioners.

20 One of the problems with the distributed
21 generation small scale is that there are no -- I mean,
22 they are not available low cost NOX sensors that could
23 measure low emissions but also have facet in such a way
24 that would be easily integrated with a control system that
25 will lower NOX emissions in these small DG units.

1 Lawrence Livermore National Lab has already
2 developed these technologies but for cars, for
3 automobiles. And they believe they can develop a similar
4 technology at low cost for applications for DG units.

5 With input from the stakeholders, the Lawrence
6 Livermore National Lab will select an appropriate DG
7 technology, most likely one using ICM, internal combustion
8 engines. Then they will develop the sensors in the
9 laboratory and finally test the sensors at an actual
10 operating DG unit.

11 So I would be happy to answer any questions that
12 you may have.

13 CHAIRPERSON WEISENMILLER: Commissioners, any
14 questions or comments on this contract?

15 COMMISSIONER DOUGLAS: No. I'll move item 42.

16 COMMISSIONER PETERMAN: I'll second.

17 CHAIRPERSON WEISENMILLER: All those in favor?

18 (Ayes)

19 CHAIRPERSON WEISENMILLER: Item 42 passes
20 unanimously.

21 Commissioners, I think it's time to take a break.

22 And what I wanted to note was, first of all,
23 Lori's heroic efforts -- and I guess three things. One is
24 we've just finished the PIER contract block. And it's
25 been a real tribute to get this work done, at the same

1 time as working very heavily on the Epic proposal. And
2 we've had a very good working relationship with the PUC on
3 the Epic proposal. That's moving forward. I think it's
4 now up for a vote at the PUC I believe on the 24th. And
5 so obviously we'll following that. But again, it's not
6 100 percent what we were looking for, but certainly a lot
7 better than where we were a few months ago. But certainly
8 there's been a lot of work on that.

9 At the same time trying to keep the basic bread
10 and butter going of the contracts. And also I've been
11 certainly encouraging her on the other side too. So she
12 and her staff have been very busy.

13 And I think looking at the group of very
14 thoughtful contracts that we worked through today that
15 again it really shows the dedication of the PIER staff.
16 And I think we have a lot of very interesting science here
17 that would help move California energy policy along. So
18 again, hats off to Lori and her division for that and for
19 the other activities.

20 COMMISSIONER PETERMAN: I agree with those
21 comments. I think this shows us the value and the
22 near-term -- the particular value of the research and the
23 PIER research. I'm incredibly supportive of it continuing
24 to be funded at the level it is now or more in the Epic
25 proposal, because the work that's being done in the PIER

1 program, as we talked about, will translate into a lot of
2 economic development and some of the goals we have here.
3 And those who don't know, the PIER program is housed in a
4 different building, so I feel the need to go visit them
5 soon to make sure they're getting water and being let out
6 the door and not getting locked in because this is such a
7 tremendous haul. I can only image how you got it done.
8 So many congratulations to Lori on this.

9 COMMISSIONER MC ALLISTER: I'll just as a newbie
10 here, I tend to burrow in on one topic, renewable or
11 efficiency or one particular focus. The diversity of
12 projects here is just pretty amazing. And all of it's
13 relevant, as we live in a hugely complex society. Our
14 energy sources are diverse. All of this stuff is equally
15 necessary. There is no silver bullet.

16 Way to go. There are a lot of stakeholders
17 involved in this, too. So just the fact there's so much
18 good stuff to choose from. And we can get a crop of such
19 amazing activities, it's what's wonderful about living in
20 California. So thanks for all the hard work.

21 CHAIRPERSON WEISENMILLER: Commissioners, let's
22 go on to Item 43, California Institute of Technology.
23 Possible Approval of Contract 500-11-023 for \$5 million.
24 This is JCAP. And this is cost share with their
25 Department of Energy funding. And this is ARFVT funding.

1 Aleecia.

2 MS. GUTIERREZ: Good afternoon, Commissioners.

3 My name is Aleecia Gutierrez from the Energy
4 Research and Development Commission. And I'm presenting
5 for your approval a contract with the California Institute
6 of Technology, or CalTech for the Joint Center for
7 Artificial Photosynthesis.

8 The proposed five million dollar contract is
9 funded by the alternative and renewable fuel and vehicle
10 technology program and will be managed by the Energy
11 Research and Development Division as part of an ongoing
12 partnership between the divisions for R&D oriented
13 projects.

14 In 2010, the Department of Energy afforded 122
15 million to a California-based team led by CalTech to run
16 the fuels from sunlight energy innovation hub of the Joint
17 Center for Artificial Photosynthesis, or JCAP.

18 JCAP will incorporate research results from labs
19 investigating aspects of artificial photosynthesis,
20 including 20 DOE energy frontier research centers and in
21 turn provide metrics and benchmarking of catalysts in
22 system performance to the scientific community.

23 JCAP will replicate the natural photosynthesis
24 process using non-organic materials to develop a solar
25 fuels generator that will produce hydrocarbon fuels from

1 sunlight, carbon dioxide, and water.

2 The scalable and cost-effective solar fuels
3 generator will, without use of rare materials or wires,
4 produce fuel from the sun ten times more efficiently than
5 the natural photosynthesis process.

6 The contract will provide funding for the JCAP
7 team to develop, test, and integrate specially designed
8 components, including light absorbers, catalysts, and
9 membranes that will be used in artificial photosynthesis
10 process and solar fuels generator.

11 Thank you for your consideration. And Hall Daily
12 is here from CalTech is here to make some remarks.

13 CHAIRPERSON WEISENMILLER: Please.

14 MR. DAILY: Thank you very much. I'm Hall Daily
15 with CalTech.

16 One of my counterparts from Lawrence Berkeley
17 Lab, Sam Chapman, is here. And probably on the phone is
18 Elizabeth Callihan at the JCAP Center, if you have any
19 questions Lucinia Amashculi (phonetic) is probably picking
20 up her child right now. She was going to be on the phone,
21 too, if you have any questions.

22 This is the end have a two-and-a-half year
23 journey for us. We began working with the State of
24 California at the invitation of the Governor's Office to
25 apply for this grant, which was the first Department of

1 Education innovation hub. And this one is centered on
2 solar fuels.

3 I want to thank the staff, particularly Aleecia
4 and Pat and Randy for their patience and expertise and
5 also mostly for their good humor.

6 We were encouraged by the State to apply. Two
7 different teams applied. It's a big state. We've got a
8 lot of good science. Unfortunately, we came to the Energy
9 Commission, talked to the staff. We met with two then
10 Commissioners Eggert and Boyd. We were activity
11 encouraged to apply for qualification under this program,
12 and we were qualified two years ago.

13 When the CalTech led team won, it was in no small
14 part because inside the proposal to DOE, which was direct
15 composition with other states, was this issue of the state
16 being behind in its research science.

17 We've worked with the staff over the last --
18 seems like a long time -- about a year-and-a-half to come
19 up with the right kind of qualification for the proposal.

20 And at this point, as it was mentioned I think in
21 Pat's presentation this morning, this is a very high
22 leverage opportunity for the state of California. It's
23 about one to 24, so it's kind of hard to beat that.

24 I just want to say that one of the amazing things
25 about the state of California is when it does get behind

1 with great science in the state, it does help the research
2 universities actually compete against other states. And
3 in this particular case and in the other proposal that
4 came out in California, they were all California schools.
5 So we would appreciate your favorable consideration of
6 this.

7 And I want to thank you, Chairman for letting me
8 bend your ear last fall when I had a chance.

9 CHAIRPERSON WEISENMILLER: Certainly. We
10 appreciate the opportunity to participate in this.

11 Obviously, we always try to encourage the
12 universities to have one proposal from the State that was
13 quoting so we don't have fracture side in D.C. Certainly
14 I think all of us are excited about the opportunities
15 here. And would note that certainly Senator Carol Liu's
16 office was very strong advocate of this.

17 MR. DAILY: And Senator Padilla.

18 COMMISSIONER PETERMAN: This is an example of one
19 of the emerging opportunities that was discussed earlier
20 that we want to take advantage of opportunities for cost
21 share. And I think it's a real new meaning to the term
22 "sun power."

23 I'm excited to see what comes out of this
24 project. And thank you for continuing to work with our
25 staff on this.

1 So with that, I will move Item 43.

2 COMMISSIONER DOUGLAS: Second.

3 CHAIRPERSON WEISENMILLER: All those in favor?

4 (Ayes)

5 CHAIRPERSON WEISENMILLER: Item 43 passes
6 unanimately. Thanks again. And let's take a five-minute
7 break.

8 (Whereupon a recess was taken from 5:40 to
9 5:54 PM)

10 CHAIRPERSON WEISENMILLER: We're back on the
11 record.

12 We're now at Item 44, which is Rand Corporation.
13 Possible Approval of Contract 600-11-004 for \$4,474,558.
14 And this is ARFVTP funding.

15 And Monica Rudman.

16 MS. RUDMAN: Good evening.

17 As you said, my name is Monica Rudman. I work in
18 the Special Projects Office of Appeals and Transportation
19 Division.

20 I'm here today to request approval of an
21 approximately \$4.5 million contract with Rand to conduct
22 evaluation, measurement, and verification, or as we say,
23 EMV, for the Energy Commission's alternative and renewable
24 fuel and vehicle technology program and projects.

25 The term of the contract is from June 2012 until

1 June 1st, 2016.

2 In recognition of the importance of good
3 stewardship of public funds, Commissioner Douglas directed
4 staff to incorporate an EMV component into the Fuels and
5 Transportation Division's Alternative and Renewable Fuel
6 Vehicle Technologies Program.

7 The broad goal of EMV is to assess the success of
8 this program, to provide accountability, and to document
9 benefits.

10 On December 23rd, 2011, the Energy Commission
11 released a request for proposals to hire a team of experts
12 to evaluate the impacts process, market-baseline market
13 effects and cost of the ARFVTP program and projects.

14 Deliverables from this contract will provide
15 insight on cost and preferred features of ARFVTP
16 activities and technologies, assess program performance in
17 meeting policy goals and targets, determine how the
18 markets for these projects changed as a result of the
19 program, and suggest how program processes can be
20 improved.

21 In addition, an advisory group will review and
22 comment on the contractor's projects and assessments.
23 Products from the contract will also include case studies,
24 recommendations on program status indicators to track an
25 assessment of the feasibility of a web-based tracking

1 system.

2 The final report will be used by the Energy
3 Commission to document the benefits and challenges of the
4 ARFVTP programs and will inform future programs of market
5 inventions.

6 The Energy Commission received qualified
7 proposals from three firms. A scoring Committee ranked
8 these firms on their approach to the task and the work
9 statement, the prime and subcontractor qualifications
10 examples and cost.

11 The EMV work is challenging and demands a breadth
12 and depth of knowledge in the areas of alternative fuels
13 and vehicle technologies, industries and markets. In
14 addition, requires knowledge of program and project
15 evaluation methods. The Scoring Committee selected Rand
16 Corporation as the highest ranking proposal.

17 Staff is confident that's Rand's approach is
18 sound and will lead to replicable, reliable, and unbiased
19 findings. The Rand Corporation is a widely respected
20 nonprofit institution that helps improve policy and
21 decision-making through research and analysis.

22 Rand has assembled a team that provides a
23 comprehensive set of skills and experience, which will be
24 working out of offices primarily located throughout
25 California.

1 In conclusion, the Energy Commission's program
2 have been subject of intense scrutiny. In order to
3 provide for transparent and responsible program
4 administration and to provide clear information on the
5 results of the ARFVTP programs, the Energy Commission
6 should approve the contract with Rand.

7 The evaluation, measurement, and verification for
8 this contract will help to deploy public funds in a
9 transparent manner, help the Energy Commission improve
10 program administration, and provide information so that
11 future investments can be targeted to the most effective
12 projects. This will help the ARFVTP program increase the
13 availability of alternative fuels and vehicle
14 technologies, increase customer awareness, and ultimately
15 increase cost effective reductions in petroleum fuel use
16 and greenhouse gas emissions. Thank you.

17 CHAIRPERSON WEISENMILLER: Thank you.

18 Obviously, we started off today here with the
19 Advisory Committee talking about metric, and it's good to
20 come sort of full circle back to an effort to quantify.

21 COMMISSIONER DOUGLAS: I was just briefly going
22 to say Monica reminded me of my role in asking for this,
23 which did not occur to me as I read the agenda and the
24 item. But I thought it was a brilliant idea.

25 And I also remember not only today the Advisory

1 Committee -- a couple of Advisory Committee members
2 talking about the importance of metric, but the very first
3 Advisory Committee that we had the first year of this
4 program where there was a lot of interest in program
5 metrics and demonstrated outcomes. So this is exactly how
6 we have to go about getting them.

7 So I will make a motion to see if there are any
8 other comments. I move Item 44.

9 COMMISSIONER MC ALLISTER: I'll make a quick
10 comment.

11 So I guess actually with a question attached to
12 it. So I think the complex markets -- this idea of market
13 transformation/market facilitation is really difficult to
14 quantify. And in some of these relatively complex
15 projects, they do sort of a process and then a very
16 technical evaluation. And they sort of do them in
17 parallel.

18 I think, in this case, both are really critical
19 to figure out. You mention sort of the administration
20 program and how to improve that and how to make it market
21 relevant and how to encourage -- how to really leverage
22 the funds to encourage the players to not only seek out
23 and have all the information they need, but actually take
24 action. And I think that's those -- if we're to grow
25 markets and we're trying to do things that don't put up

1 barriers, but actually sort of remove barriers, then that
2 evaluation is absolutely critical for having insight.

3 As the program administrator, it's really hard to
4 get that insight without having some external person to go
5 ask independently. So I think this is really critical and
6 obviously a core program for the Commission going forward
7 and should be.

8 So thank you.

9 COMMISSIONER PETERMAN: Also, I'll just
10 comment -- first of all, thank you to Monica for her
11 tremendous work on this. She's been working diligently on
12 this issue for I don't know how long. But great it's see.

13 And particularly one of the challenges with doing
14 in this space, we have -- \$100 million is a large fund,
15 but relative for the overall market for vehicles and
16 fuels, it's quite small. So the challenge for us and
17 always welcome additional suggestions how do you look at
18 market impact when you're a relatively small player in
19 global markets.

20 That being said, I think that these 118 funds
21 solicitations are having an impact. And what we need to
22 do is how to quantify that and relay that. Frankly, not
23 underestimate it, which could be easy.

24 So with that and all that support, was there a
25 second, Andrew?

1 COMMISSIONER MC ALLISTER: No, I didn't. Go
2 ahead.

3 COMMISSIONER PETERMAN: I will second. I think
4 Karen moved it.

5 CHAIRPERSON WEISENMILLER: All those in favor?
6 (Ayes)

7 CHAIRPERSON WEISENMILLER: This item has been
8 approved. Thank you.

9 Let's go on to 45, Electricore, Inc. Possible
10 Approval of Agreement ARV-11-012 for a grant of
11 \$2,325,954. And this is also ARFVTP funding. And John
12 Mathias.

13 MR. MATHIAS: Good afternoon.

14 I'm John Mathias with the Emerging Fuels and
15 Technologies Office.

16 This project is ZeroTruck battery electric
17 medium-duty truck demonstration was selected from grant
18 solicitation PON-10-603, which was the advanced medium and
19 heavy-duty technologies pre-commercial demonstration
20 solicitation.

21 The project will demonstrate the operation of
22 medium-duty electric truck that is being developed by Zere
23 Trucking Incorporated.

24 Electricore, Incorporated, which is based in
25 Valencia, California is awardee and administrator for this

1 project. And ZeroTruck, Incorporated, which is based in
2 the Laguna Niguel, California, is the sub-awardee.

3 Fourteen vehicles will be demonstrated at various
4 sites in northern and southern California. Confirmed
5 demonstration locations include Google, the city of Santa
6 Monica, the Port of Los Angeles, and other locations in
7 San Diego, North Hollywood, and Los Angeles County.

8 Demonstration vehicles will entail freeway and
9 local operation. And the ZeroTruck can be deployed in
10 various configurations, including as tow trucks, dump
11 trucks, cargo trucks, and other types of vehicles, other
12 types of truck configurations.

13 The ZeroTruck vehicle is based on the Isuzu N
14 series chassis. It has a range of between 60 and 100
15 miles and employs lithium batteries. The project will
16 build upon a recent prototype vehicle that is in use by
17 the city of Santa Monica.

18 As demand increases, the company expects to
19 employ approximately 15 people by 2015. And the ZeroTruck
20 vehicle that operates 30,000 miles per year is expected to
21 save approximately \$19,000 year on operations and
22 maintenance cost, compared to a diesel vehicle.

23 I can answer any questions.

24 CHAIRPERSON WEISENMILLER: Thank you.

25 Commissioners, any questions or comments?

1 COMMISSIONER PETERMAN: I just offer a comment
2 that this proposal as well as the next one are both
3 examples of the work the Energy Commission is doing in the
4 medium- and heavy-duty vehicle space, which was
5 acknowledged by a number of commentators this morning as an
6 important area to continue to focus. And it has my
7 support.

8 I will move Item 45.

9 COMMISSIONER MC ALLISTER: I'll second.

10 CHAIRPERSON WEISENMILLER: All those in favor?

11 (Ayes)

12 CHAIRPERSON WEISENMILLER: Item 45 passes
13 unanimously. Thank you.

14 46, Electric Power Research Institute. Possible
15 Approval of Agreement ARV-11-013 for grant of \$964,210.
16 And this is ARFVTP funding. And Aida.

17 MS. ESCALA: Good evening. I'm Aida Escala from
18 the Emerging Fuels and Technologies Office.

19 I'm presenting for possible approval a grant of
20 \$964,210 to Electric Power Research Institute, or EPRI, to
21 administer the project of Odyne systems to retrofit five
22 heavy-duty diesel work trucks with plug-in hybrid electric
23 vehicle drive systems.

24 The vehicle is powered by an alternative fuel
25 electricity in addition to either diesel or gasoline fuel.

1 The project will demonstrate the operating performance,
2 fuel savings, and emissions reduction of one Verizon
3 telephone phone installation or removal work truck and
4 four West Coast arborists tree care service trucks. All
5 demonstration trucks will be operated in the South Coast
6 air basin.

7 The demonstration project will position Odyne for
8 commercialization of its PHEV retrofit system. It will
9 partner with Utility Equipment and Leasing Corporation of
10 Ontario, California, who will install the systems.

11 The Odyne plug-in hybrid drive system provides
12 launch-assist regenerative braking, high-capacity
13 electrical energy storage, and zero or significantly lower
14 emissions at the job site.

15 It performs in high horsepower demand
16 applications, such as bucket trucks and cranes. Its quiet
17 operation means safer working conditions and Extended work
18 days.

19 Among its benefits are it reduces fleet operating
20 and maintenance costs. And depending on duty cycle,
21 enables large trucks to obtain fuel economy improvements
22 of 50 percent or greater, compared to traditional diesel
23 or gas engines.

24 This efficiency is expected to result in annual
25 fuel savings of 1,750 gallons of diesel or gasoline per

1 year or \$8,750 per year based on 250 work days.

2 Estimated reduction is up to 19.25 tons of GHG
3 per year. Payback period is 3.4 years. And the project
4 is estimated to generate 80 jobs by 2015.

5 Match share for the project is 671,000, or 41
6 percent of the project costs.

7 I will be happy to answer questions.

8 CHAIRPERSON WEISENMILLER: Thank you.

9 Commissioners, any questions or comments?

10 COMMISSIONER PETERMAN: I think it's a good
11 project. I'll move Item 46.

12 CHAIRPERSON WEISENMILLER: I was going to note we
13 did hear from the South Coast today about how important
14 this type of research is. So again we seem to be going
15 full circle between the morning and the afternoon.

16 COMMISSIONER PETERMAN: Yes. Beautiful day.

17 COMMISSIONER DOUGLAS: Second.

18 CHAIRPERSON WEISENMILLER: All those in favor?

19 (Ayes)

20 CHAIRPERSON WEISENMILLER: This item passes
21 unanimously. Thank you.

22 47, Lawrence Berkeley National Laboratory.
23 Possible Approval of Contract 500-11-025 for one million.
24 U.S. Department of Energy, Lawrence Berkeley National
25 Laboratory. And this is ARFVTP funding. And Kiel Pratt

1 again.

2 MR. PRATT: Thank you. I'm Kiel Pratt with the
3 Energy Technology Systems Integration Office.

4 This item today is proposed for match funding for
5 competitive award that Lawrence Berkeley Lab won under a
6 Department of Defense competitive solicitation. That
7 solicitation is the Environmental Security Technology
8 Certification Program. This project is being managed by
9 Research and Development Division staff. It uses AB 118
10 funding, and it furthers AB 118 program goals by
11 accelerating the adoption of heavy-duty electric vehicles.

12 What this demonstration will do is demonstrate
13 the revenue-generating capability of what's called
14 vehicle-to-grid functionality. That means allowing
15 vehicles to not only charge but also discharge energy into
16 the grid during demand response events.

17 The demonstration will take place at the Los
18 Angeles Air Force Base. It will comprise of five or six
19 approximately heavy-duty electric vehicles. The layers of
20 software and hardware necessary to coordinate vehicle to
21 grid functionality and to participate as fully as possible
22 in the utility and California ISO ancillary services
23 markets. Ancillary service are the most expensive service
24 that power generators provide. And to shift some of this
25 capability to a distributed sets to electric vehicles

1 would have the economic benefit.

2 This type of technology is poised to be deployed
3 on at least four additional California military bases and
4 also nationwide.

5 Several technological hurdles will be
6 characterized and the software and hardware levels -- I'm
7 sorry. The software and hardware capabilities for
8 managing the grid functionality will be developed and
9 optimized and data will be collected.

10 And I'm happy to answer any questions you have.

11 CHAIRPERSON WEISENMILLER: Thank you very much.

12 I would note that when I was at China Lake, that
13 once came up. The Navy has very aggressive goals for the
14 non-tactical vehicle fleet. So certainly there are a lot
15 of good opportunities for us to work with them on really
16 pushing this as test beds, the basis, to really push
17 electrification of advanced technologies on the
18 transportation fleet. We're hoping this is the first of
19 many opportunities. And I think all of us are
20 particularly interested in grid -- this sort of vehicle to
21 grid benefits.

22 And certainly all of us, too, would like to see
23 the CalISOs and some of these services markets really
24 being able to use this type of option to really broaden
25 the issues, particularly for the integration. So great

1 project. Hopefully, we can replicate this more and more.

2 COMMISSIONER PETERMAN: I would say there is a
3 tremendous amount of good activities happening in this
4 project, and we won't have an opportunity to go through
5 complimenting every single one.

6 But again as the Chairman has mentioned, this is
7 one of the ways we've been collaborating with the military
8 and appreciate that component of the federal partnership
9 as well as the federal cost share.

10 So as the Chair said, I hope this is the first of
11 many projects similar that we do around the state and is
12 another example of the great work that can be done with
13 the emerging opportunities solicitation of the 118
14 program. So I will move the Item 47. But of course my
15 fellow Commissioners may have any other comments.

16 COMMISSIONER MC ALLISTER: You guys said it all.
17 I'll go ahead and second. I think it's a great project as
18 well

19 MR. PRATT: If you allow, I can comment on the
20 fact that the heavy-duty electric vehicle market is quite
21 small, and this project would propel this to expansion.
22 These wouldn't be Chevy Volts or Nissan Leafs, but the
23 small size of the heavy-duty electric vehicle market could
24 be bolstered by this project. And there is a natural
25 pathway to adoption in the civilian sector for companies

1 like UPS and FedEx that use heavy vehicles with city
2 driving, which is a prime candidate for electric vehicle
3 technology.

4 COMMISSIONER PETERMAN: Thank you.

5 CHAIRPERSON WEISENMILLER: Thank you for that
6 clarification.

7 COMMISSIONER PETERMAN: I think I did do a
8 motion.

9 CHAIRPERSON WEISENMILLER: It's been seconded.
10 All in favor?

11 (Ayes)

12 CHAIRPERSON WEISENMILLER: This item passes
13 unanimously. Thank you again.

14 48, Alternative and Renewable Fuel and Vehicle
15 Technology Buy-Down Incentive Reservation. Possible
16 Approval of a Total of 1,074,000 in vehicle buy-down
17 incentive reservation. ARFVT funding. Andre Freeman.

18 MR. FREEMAN: Good evening, Commissioners.

19 My name is Andre Freeman. I'm a staff member in
20 the Fuels and Transportation Division's Emerging Fuels and
21 Technology Office.

22 Today, I'll be seeking approval of the third
23 batch of reservations for the natural gas and propane
24 vehicles funded through the Alternative Renewable Vehicles
25 Technology Program.

1 The total amount for these reservations would be
2 \$1,074,000. The natural gas and propane vehicle buy-down
3 program is designed to promote the purchase of clean
4 alternative-fueled vehicles to replace the aging gasoline
5 and diesel fleets in California.

6 This program provides incentives for consumers to
7 adopt these new technologies that have both environmental
8 and economic benefits for the state of California.

9 The Natural Gas and Propane Vehicle Buy-Down
10 Program began taking reservations on February 8th of 2012.
11 This third batch of reservations represents the sale of 41
12 additional vehicles for this program -- 41 additional
13 natural gas and five additional propane vehicles.

14 To date, this program has funded a wide variety
15 of vehicles everywhere from light-duty passenger natural
16 gas vehicles to light, medium, and heavy-duty propane
17 vehicles.

18 This year, total for the 2012 buy-down program,
19 we have over 600 vehicles that have been funded to date,
20 five hundred or more of those being natural gas and over
21 100 being for propane buses and heavy duty vehicles.

22 For Commissioner McAllister, I would just mention
23 this is our natural gas and propane version of the CVRP
24 HVIP programs put together.

25 Available for any questions you may have.

1 CHAIRPERSON WEISENMILLER: Thank you.

2 Commissioners, any questions? Comments?

3 COMMISSIONER PETERMAN: There's been a tremendous
4 amount of interest in this program. And I thank staff for
5 continuing to meet some of the demand with all these
6 funds. I'm move Item 48.

7 COMMISSIONER DOUGLAS: Second.

8 CHAIRPERSON WEISENMILLER: All those in favor?

9 (Ayes)

10 CHAIRPERSON WEISENMILLER: This item passes
11 unanimously.

12 49, New Leaf Biofuel, LLC. Possible Approval of
13 Agreement ARV-11-015 for a grant of \$511,934. And this is
14 ARFVTP funding. Phil Cazel.

15 MR. CAZEL: Good afternoon.

16 My name is Phil Cazel from the Emerging Fuels and
17 Technology Office.

18 Presenting for approval agreement ARV 11-015 in
19 the amount of \$511,934 for New Leaf Biofuel. This is a
20 small biodiesel production company located in the city of
21 San Diego that plans to more than double their capacity of
22 biodiesel produced from waste cooking oil.

23 If approved, the recipient will contribute over
24 \$753,000 in match. And the project will be completed and
25 operational by the end of 2013.

1 Specifically, this grant will support the
2 purchase and installation of new processing equipment that
3 will increase the facility's biodiesel production capacity
4 from one and a half million gallons to five million
5 gallons per year.

6 In addition to increased capacity, the project
7 includes a co-generation system and a high efficiency
8 ethanol recovery process. These features will decrease
9 the carbon intensity of the fuel currently produced --
10 these features will decrease the carbon intensity of the
11 fuel currently produced at this facility an additional 10
12 percent, which results in a total of 90 percent lower
13 carbon intensity than that of ultra-low sulfur diesel.

14 Various users of the fuel produced by this plant
15 include local refiners, blenders, fleet vehicles from
16 several local cities, San Diego Unified School District,
17 the U.S. Navy, San Diego Gas and Electric, and Pearson
18 Fuels.

19 This project will benefit California in many
20 ways. It will result in an additional three-and-a-half
21 million gallons per year of low carbon biodiesel fuel for
22 California consumers. It will immediately bring seven new
23 full-time permanent green jobs to a designated enterprise
24 zone where an estimated 66 percent of the population makes
25 less than \$30,000 per year. And increased production will

1 indirectly create jobs in surrounding community through
2 increased demand for new raw materials and the
3 distribution of the finished product.

4 Put simply, completion of this project will
5 increase the supply of an alternative transportation fuel
6 the significantly reduces greenhouse gas emissions,
7 reduces petroleum fuel demand, and will stimulate economic
8 development within the state of California.

9 Staff is requesting the Commission's support and
10 approval of this proposed grant award. Thank you.

11 COMMISSIONER PETERMAN: Commissioners, I will say
12 that this is a very good project. Again, it represents an
13 alternative -- one of the many alternative fuels that we
14 support.

15 And before we vote on this item, since this is
16 the last transportation item on the agenda and I fear once
17 we vote on it everyone in the room will get up and
18 leave -- I did want to take a second and extend a special
19 thank you to our Executive Director Rob Oglesby and Drew
20 Bohan for the involvement they've had and the work they've
21 done to get all of these transportation solicitations out,
22 as well as support on the Investment Plan. It truly has
23 been appreciated, as well as their support with getting
24 the Renewable Guidebook out. It has been a heavy lift for
25 all.

1 Also like to extend a thank you to my advisor,
2 Tim Olson, Transportation Advisor, who has been absolutely
3 tremendous in his wealth of knowledge and support. He has
4 taken a position as a Manager of the Fossil Fuels Office.
5 And so will at some point perhaps be sitting on that side
6 of the dais and bringing items to our attention. But his
7 service to the Commission on these issues has been great.

8 And I'm glad we were able to get all these
9 solicitations out and the plan while he was still with his
10 tenure with my office.

11 So anyone has any other comments before I make a
12 motion -- then I will happily move Item Number 49.

13 COMMISSIONER DOUGLAS: Second.

14 CHAIRPERSON WEISENMILLER: All those in favor?

15 (Ayes)

16 CHAIRPERSON WEISENMILLER: Item 49 is nominally
17 approved.

18 Item 50, Minutes. A possible approval of April
19 11th, 2012, Business Meeting Minutes.

20 COMMISSIONER DOUGLAS: Move approval.

21 COMMISSIONER PETERMAN: Second.

22 CHAIRPERSON WEISENMILLER: All those in favor?

23 (Ayes)

24 CHAIRPERSON WEISENMILLER: Possible approval
25 of --

1 COMMISSIONER MC ALLISTER: Abstain.

2 CHAIRPERSON WEISENMILLER: Yes. You're
3 abstaining. So not unanimous. Three to zero. Three,
4 zero, one.

5 Possible approval of April 25th, 2012, Business
6 Meeting notes.

7 COMMISSIONER DOUGLAS: Move approval.

8 COMMISSIONER PETERMAN: Second.

9 CHAIRPERSON WEISENMILLER: All those in favor?
10 (Ayes)

11 CHAIRPERSON WEISENMILLER: Three, zero, with one
12 abstention.

13 Item 45, Lead Commissioner and Presiding Members
14 reports.

15 COMMISSIONER DOUGLAS: Nothing to report.

16 COMMISSIONER PETERMAN: You've seen what I've
17 done.

18 CHAIRPERSON WEISENMILLER: I'm going to do a very
19 brief summary of update.

20 COMMISSIONER PETERMAN: Please.

21 CHAIRPERSON WEISENMILLER: Basically, the good
22 news is when you look at the action plan we've developed
23 jointly with the CalISO and the PUC Governor's Office, one
24 of the key linchpins was the restart of work with the Air
25 Board. And as of today, that's been accomplished. A lot

1 of work, particularly Mary Nichols from the Air Board, but
2 certainly our compliance staff have been on the ground
3 trying to make sure it's been done and it's done. We did
4 that.

5 The other items we are working on for this summer
6 is accelerating Barre-Ellis line of Edisons, an upgrade;
7 also accelerating the Sunrise line, and the associated
8 remedial action schemes. But at this point, it's probably
9 more safety schemes.

10 Flex Your Power has been approved by the PUC.
11 And at this stage, a lot of demand response programs I
12 think both Edison and San Diego 10/10 -- a variety of
13 programs, including 10/10. For those of you in crisis
14 year we had a 20/20 program and these are now 10/10, but
15 they're geared more for commercial.

16 In terms of -- also we had a good outreach with
17 military in San Diego. And in fact, we had dinner with
18 Rear Admiral Dixon Smith last week to talk about the
19 opportunities.

20 Andrew, prior at to becoming a Commissioner was
21 at a meeting with Assistant Secretary Jackie Pfannensteil
22 on these issues. And Jackie stayed on point. I got
23 e-mails from her today that responded to the issues there.
24 That's been pushing forward. And also dealing with
25 maintaining the existing plans to make sure they're

1 available. Some of the plants in San Diego are 50, 60
2 years old. So it's important to keep those up.

3 On the San Onofre side, the last time I indicated
4 Edison thought it identified the issue of what's causing
5 the vibrations. And we're working on mitigation
6 strategies. At this point, the mitigation strategies are
7 becoming clearer. They have announced that the number is
8 1300 tubes in the plants. They have about 18,000 in each
9 of them. But again, this is sort of a substantial number;
10 800 in Unit 3, which has the worst conditions.

11 They are hoping -- there was a lot of press, but
12 they were hoping to restart the units in early June, June
13 1st, which was not possible this year. But then the NRC
14 Chair clarified this week they have not seen any of the
15 regular requirements from Edison, that he was certainly
16 not going to commit to any schedule until he saw it. But
17 safety first.

18 So again, our basic assumption of if the plants
19 are not available this summer, it's still true. And
20 Edison is also as part of it talking about a de-reg, which
21 would be 50 percent both the units. The restarts, if and
22 when they occur, would be for a short period of time.
23 Unit 2 might be five months or so, and then a one month
24 shut down. Unit 3 might be three months or so with the
25 one-month shut down.

1 The one month would be to redo all the tests
2 they've done to see if the mitigation reducing the loading
3 actually has cured the issue or not. So still a lot of
4 concerns, but bottom line is significant progress on
5 dealing with the issue.

6 And I would note today we've been alerted by the
7 NRC there is an unsubstantiated terrorist threat against
8 seven unspecified states in the U.S. targeting its nuclear
9 plants, including one in Los Angeles. So -- okay.
10 Anyway, progress on that front.

11 We did have a good legislative hearing this week
12 on our mitigation plans for the summer.

13 COMMISSIONER MC ALLISTER: Chair Weisenmiller,
14 can I ask a question? The Huntington Beach plans are
15 supposed to be brought on line.

16 CHAIRPERSON WEISENMILLER: Yes.

17 COMMISSIONER MC ALLISTER: Is that on schedule to
18 be there by June and sort of a status report of that
19 related to the San Onofre issue.

20 CHAIRPERSON WEISENMILLER: We have finished -- we
21 have certified the repairs, and at this point, people are
22 starting to do the testing. So they will definitely be on
23 line for June 1st.

24 COMMISSIONER PETERMAN: Thank you for the report.
25 And I'm glad that -- thank you for the work you're doing

1 with the other sister agencies to try to avoid any issues
2 down there. It's one of the things where if you do the
3 job well, you won't know about it. So thank you for
4 continued attention.

5 CHAIRPERSON WEISENMILLER: I think we've had a
6 Chief Counsel's report. So 53, Executive Director Report.

7 EXECUTIVE DIRECTOR OGLESBY: Really briefly, nine
8 days ago, we came across the federal deadline for the
9 conclusion of the ARRA SEP. No funds will go back to the
10 federal governmental. Funds will be utilized in
11 California, as promised.

12 Special thanks to Drew Bohan, Randy Roesser, Mark
13 Hutchison, and too many others to name right now. But I
14 wanted to note the deadline has passed, and we will be
15 utilizing all the funds here in California and none will
16 revert to the Feds.

17 COMMISSIONER DOUGLAS: Thank you. That's great.

18 CHAIRPERSON WEISENMILLER: That is fantastic.
19 And obviously the big cost and certainly some of the
20 reason why the 118 contracts were up today was the long
21 hours by the transportation folks on the ARRA funds.

22 COMMISSIONER PETERMAN: And I'd request the
23 Executive Director at our next business meeting in the
24 beginning you also make that announcement. I think that's
25 great news and worth -- with many people in the Commission

1 having been involved with it, it would be great to have
2 more attention to it. So congratulations.

3 Congratulations also, Commissioner Douglas, in
4 particular, for the work she's been doing tirelessly on
5 the ARRA rollout. Thank you.

6 CHAIRPERSON WEISENMILLER: Public Advisor's
7 report.

8 PUBLIC ADVISOR JENNINGS: I don't have a report,
9 but I would like to thank you for considering my concerns
10 about the RPS appeal process. Thank you.

11 CHAIRPERSON WEISENMILLER: Thank you for raising
12 it.

13 COMMISSIONER PETERMAN: And I would just say the
14 Chief Counsel has noted we're not sure what form we'll
15 deal with it, but in whatever form it is, I hope you will
16 be involved and continue to participate.

17 CHAIRPERSON WEISENMILLER: 55, public comment.
18 Nothing.

19 We're going adjourn the meeting.

20 (Whereupon the California Energy Commission
21 Business Meeting Adjourned at 06:27 PM.)

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