



Commissioners Present

Robert B. Weisenmiller, Chair  
James D. Boyd, Vice Chair  
Karen Douglas  
Carla J. Peterman

Staff Present:

Ron Oglesby, Deputy Director  
Michael Levy Chief Counsel  
Jennifer Jennings, Public Advisor  
Harriet Kallemeyn, Secretariat

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Galen Lemei	2
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Interested Parties

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Peter Spaulding, CalTrans	5

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1. CONSENT CALENDAR	11
a. The Regents of the University of California: Possible approval of Amendment 4 to agreement 500-02-004 with the Regents of the University of California, California Institute for Energy and Environment (CIEE) for no-cost time extensions to complete eight critical projects that require additional time.	
1. UC-MRA-026. Air Quality Research Project. Possible approval of Amendment 3 for a six-month no-cost time extension to complete the field program.	
2. UC-MRA-045. West Coast Regional Carbon Sequestration Partnership, Phase II. Possible approval of Amendment 3 for an eight-month no-cost time extension to update reports and complete the final deliverables due to delays.	
3. UC-MRA-70. Fault Analysis in Underground Cables. Possible Approval of Amendment 3 for a six-month no-cost time extension to complete field testing and documentation.	
4. UC-MRA-084. PIER State Partnership for Energy Efficiency Demonstrations. Possible approval of Amendment 2 for an 8-month no-cost time extension to allow time to benchmark, install and monitor the energy savings from the demonstration projects and enhance the quality of the results.	
5. UC-MRA-088. Strategic Analysis of Energy Storage Technology. Possible approval of Amendment 1 for a six-month no-cost time extension needed to complete the project due to delays.	
6. UC-MRA-089. Life Cycle Greenhouse Gas and Energy Analyses of Production of Algae Biofuels. Possible approval of Amendment 1 for a six-month no-cost time extension which is needed to complete the project due to delays.	

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1. CONSENT CALENDAR (Continued).
  7. UC-MRA-090. Under-measured and Overlooked Fuel-Saving Opportunities in California's Light Duty Vehicles. Possible approval of Amendment 1 for a six-month no-cost time-extension which is needed to complete the project due to delays.
  8. UC-MRA-001. Administration. Possible approval of Amendment 4 for an eight-month no-cost time extension to complete the administration portion of the Master Research Agreement 500-02-004.
- b. WESTERN INTERSTATE ENERGY BOARD. Possible approval of Contract 150-10-005 for \$36,000 with Western Interstate Energy Board for two years' dues. (ERPA funding.)
- c. CITY OF TURLOCK. Possible approval of Amendment 1 to Loan Agreement 001-10-ECC with the City of Turlock for a one-year, no-cost time extension to August 31, 2012. This term extension will allow the City to complete the upgrade of streetlights from sodium vapor and mercury vapor to induction lighting.
- d. LAWRENCE BERKELEY NATIONAL LABORATORY. Possible approval of Amendment 1 to Contract 500-09-003 with the U.S. Department of Energy, Lawrence Berkeley National Laboratory for a 12-month no-cost time extension to complete EnergyIQ tool enhancements and service extension upgrades.
- e. SACRAMENTO MUNICIPAL UTILITY DISTRICT. Possible approval of Amendment 2 to Contract 400-09-023 with Sacramento Municipal Utility District (SMUD) to reallocate funds among task budgets to achieve the adjusted single-family and multi-family unit goals, and to add Task 3 for rebate and marketing enhancement activities to enable SMUD to effectively implement the Home Performance Program. The amendment will not increase the total amount of the contract or extend the contract period.

## Items

## 1. CONSENT CALENDAR (Continued).

- f. Item moved to June 15 meeting. ~~COUNTY OF LOS ANGELES INTERNAL SERVICES DEPARTMENT. Possible approval of Amendment 1 to Contract 400 09 024 with the County of Los Angeles Internal Services Department to reallocate funds among various tasks and add two job classifications to allow the county to implement their program more effectively. The amendment will not increase the total amount of the contract or extend the contract period.~~
- g. CITY OF WILDOMAR. Possible approval of Amendment 1 to Agreement CBG 09-114 to modify the budget and scope of work, change the type of parking lot lighting from 150 watt induction lighting to 150 watt LED lighting, add pedestrian LED signals, and reduce the number of traffic signal light replacements. The total grant amount of \$134,140 is unchanged.
- h. CITY OF CALIMESA. Possible approval of Amendment 1 to Agreement CBG 09 048 with the City of Calimesa to change the scope of work, add an additional five ton HVAC unit to the City Hall Annex building, reallocate funds from direct labor, fringe and contract labor to non-labor contract expense and extend the term of the grant from July 15, 2011, to May 31, 2012. There is no change to the total grant budget of \$35,958.
- i. C & G TECHNOLOGY SERVICES, INC. Possible approval of an augmentation of \$15,000 to Contract 09-409-016 with C & G Technology Services, Inc. to complete two final tasks for the development and implementation of an Internet-based version of the California Utility Allowance Calculator.
- j. CITY OF PACIFICA. Possible approval of the City of Pacifica's locally adopted building energy standards to require greater energy efficiency than the 2008 Building Energy Efficiency Standards.

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2. ENERGY COMMISSION COMMITTEE APPOINTMENTS. Possible approval of Siting Committee appointment to the Calico Solar Project Amendment (08-AFC-13C), and ratification of prior Siting Committee orders and actions relating to the Calico Solar Project Amendment (08-AFC-13C).	15
3. THE RESULTS GROUP. Possible approval of Contract 400-10-014 for \$75,000 with The Results Group for strategic planning service to assist the Energy Commission's Efficiency and Renewable Energy Division's evaluation and implementation of strategic priorities, structural re-alignment, project management protocol and stakeholder engagement efforts. (ERPA funding.)	18
4. CALIFORNIA INSTITUTE FOR FOOD AND AGRICULTURAL RESEARCH. Possible approval of Contract 400-10-013 for \$425,000 with the Regents of the University of California, California Institute for Food and Agricultural, to support the implementation of the Department of Energy Superior Energy Performance Program in the food and beverage industry. (DOE funding.)	22
5. CALIFORNIA DEPARTMENT OF TRANSPORTATION. Possible approval of Contract 600-10-008 for a \$250,000 Interagency Agreement with the California Department of Transportation to add 500 completed surveys to the 1,200 households in the California Household Travel Survey that Caltrans has planned for the GPS and on-board diagnostic data loggers vehicle instrumentation. These funds will be used to increase the number of renewable and alternative fueled vehicles in the survey and the accuracy of on-road fuel economy measurement. (ARFVT funding.)	26

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6. VEHICLE BUY-DOWN INCENTIVE RESERVATIONS. Possible approval of a total of \$4,005,000 in vehicle buy-down incentive reservations (ARFVT funding).	31
a. ARATA EQUIPMENT COMPANY (American La France). \$1,280,000 for the buy-down of 40 natural gas vehicles of 26,001 pounds gross vehicle weight and greater.	
b. A-Z BUS SALES, INC. (Blue Bird Corporation). \$500,000 for the buy-down of 25 propane school buses of 14,001 pounds gross vehicle weight and greater.	
c. A-Z BUS SALES, INC. (Collins Bus Corporation). \$500,000 for the buy-down of 25 propane school buses of 14,001 pounds gross vehicle weight and greater.	
d. CREATIVE BUS SALES (El Dorado National). \$15,000 for the buy-down of 5 natural gas vehicles of up to 8,500 pounds gross vehicle weight and \$560,000 for the buy-down of 28 natural gas vehicle of 14,001 to 26,000 pounds gross vehicle weight for a total reservation amount of \$575,000.	
e. CREATIVE BUS SALES (Goshen Coach, Inc.). \$15,000 for the buy-down of 5 natural gas vehicles of up to 8,500 pounds gross vehicle weight and \$560,000 for the buy-down of 28 natural gas vehicle of 14,001 to 26,000 pounds gross vehicle weight for a total reservation amount of \$575,000.	
f. CREATIVE BUS SALES (Rockport Commercial Vehicles). \$15,000 for the buy-down of 5 natural gas vehicles of up to 8,500 pounds gross vehicle weight and \$560,000 for the buy-down of 28 natural gas vehicle of 14,001 to 26,000 pounds gross vehicle weight for a total reservation amount of \$575,000.	
7. LAWRENCE BERKELEY NATIONAL LABORATORY. Possible approval of Contract 500-10-052 for \$4,911,721 with the U.S. Department of Energy, Lawrence Berkeley National Laboratory for 15 projects to improve building and appliance energy efficiency by developing and deploying new technologies and standards. (PIER electricity and natural gas funding.)	33

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8. CALIFORNIA INSTITUTE FOR ENERGY AND ENVIRONMENT. Possible approval of Contract 500-10-048 for \$3,978,590 with the Regents of the University of California, California Institute for Energy and Environment, to conduct eleven projects to advance distributed energy and solar hot water generation, and to improve the efficiency of heating, ventilation, air conditioning, and lighting systems. (PIER electricity and natural gas funding.)	39
9. NATIONAL RENEWABLE ENERGY LABORATORY. Possible approval of Contract 500-10-053 for \$4.25 million with the U.S. Department of Energy, National Renewable Energy Laboratory to develop and demonstrate natural gas engines that meet or exceed California Air Resources Board 2010 emissions standards and have been integrated into refuse, transit, and Class 8 heavy-duty truck chassis. (PIER natural gas funding)	41
10. CALIFORNIA INSTITUTE FOR ENERGY AND ENVIRONMENT. Possible approval of Contract 500-10-049 for \$2,515,918 with the Regents of the University of California, California Institute for Energy and Environment, to demonstrate PIER-developed and other energy efficient emerging technologies at institutions of higher learning and other venues in California, and to pilot a wide-scale deployment program for established technologies that represent best practices for efficiency in energy-using systems. (PIER electricity funding.)	47
11. CALIFORNIA INSTITUTE FOR ENERGY AND ENVIRONMENT. Possible approval of Contract 500-10-023 for \$300,000 with the Regents of the University of California, California Institute for Energy and Environment, to track the progress and capture technical knowledge from California projects funded by the United States Department of Energy under the American Recovery and Reinvestment Act of 2009 to inform California utility smart grid implementation plans and Commission research roadmaps. (PIER electricity funding.)	49

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<p>12. CALIFORNIA INSTITUTE FOR ENERGY AND ENVIRONMENT. Possible approval of Contract 500-10-055 for \$1,027,230 with the Regents of the University of California, California Institute for Energy and Environment, to provide program support in the areas of technology assessments, research gap identification, technology roadmap development and coordination, and research technology transfer activities. (PIER electric support funding.)</p>	52
<p>13. LAWRENCE LIVERMORE NATIONAL LABORATORY. Possible approval of Contract 500-10-051 for \$1.75 million with the U.S. Department of Energy, Lawrence Livermore National Laboratory, to apply high performance computing technology to improve the knowledge of the intermittent generation challenges from integrating high levels of renewable generation on the California electric grid. This research will use advanced optimization and control techniques to assess the system wide need for energy storage, automated demand response and other fast acting energy services to better balance the energy needs of the grid of the future. (PIER electricity funding.)</p>	56
<p>14. SIMBOL, INC. Possible approval of Agreement PIR-10-059 for a grant of \$380,000 to Simbol, Inc., to research and develop extraction technologies for strategic value-added minerals from geothermal brines. This a cost-share grant to supplement the recipient's American Recovery and Reinvestment Act award under the Department of Energy's Geothermal Technologies Program. (PIER funding.)</p>	60
<p>15. PORTLAND STATE UNIVERSITY. Possible approval of Amendment 1 to Contract 500-08-024 with Portland State University to add \$984,100 and a 24-month time extension to study how households use energy to enable policy models, technologies and better-informed choices by residential consumers. (PIER natural gas funding.)</p>	63
<p>16. Item moved to June 20 meeting <del>GAS TECHNOLOGY INSTITUTE. Possible approval of Contract 500-10-050 with Gas Technology Institute for \$480,000 to evaluate the current state of hardware, software, and processes being used in California to assess and monitor the condition and health of the natural gas pipeline network.</del> (PIER natural gas funding.)</p>	

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17. ~~Items 17 - 24 moved to June 15 meeting KEMA, INC. Possible approval of Contract 500-10-064 for \$447,642 with KEMA, Inc., for evaluation and optimization of concentrated solar power coupled with thermal energy storage. (PIER natural gas funding.)~~
18. AWS TRUEPOWER. Possible approval of Contract **Postponed**  
500-10-05 for \$442,136 with AWS Truepower to develop, demonstrate, and validate an integrated forecasting system that can accurately predict solar photovoltaic plant production on timescales ranging from 15 minutes to 2 days ahead. Key partners include California Independent Operating System and Semptra Energy. (PIER electricity funding.)
19. CLEAN POWER RESEARCH. Possible approval of Contract **Postponed**  
500-10-059 for \$450,000 with Clean Power Research to develop a master solar photovoltaic (PV) database that includes all grid-connected PV systems in California, and validate the solar power output variability for any fleet of PV systems. This project will be done in coordination with the California Independent System Operator, which will integrate the results into its planning process. (PIER electricity funding.)
20. ENERNEX LLC. Possible approval of Contract 500-10-060 **Postponed**  
for \$450,000 with EnerNex LLC to gather and analyze intra-hour forecast data for solar photovoltaic production in the Inland Empire region. The resulting data will be used to model, monitor, and primarily analyze impacts of adding 500 MW of photovoltaic capacity to the grid. (PIER electricity funding.)
21. TRANSPORTATION POWER, INC. Possible approval of **Postponed**  
Contract 500-10-058 for \$2 million with Transportation Power, Inc., to design, build, and test a new, low cost and modular fast energy storage technology known as Grid-Saver system, with peak power capacity of 5 megawatts at a projected cost of about 5 times lower than competing battery systems and that can help facilitate integration of utility-scale renewable energy in California. (PIER electricity and natural gas funding.)

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- 22. PROJECT NAVIGATOR, LTD. Possible approval of Contract **Postponed**  
500-10-061 for \$120,000 with Project Navigator, Ltd.,  
to study the effects of utility-scale photovoltaic  
energy systems on landfill caps, and to develop a  
guidance manual for the development of landfill-based  
photovoltaics. (PIER electricity funding.)
  
- 23. COMBINED POWER COOPERATIVE. Possible approval of **Postponed**  
Contract 500-10-063 for \$1 million with Combined Power  
Cooperative to develop and demonstrate "hyperlight"  
concentrated solar thermal power technology. Hyperlight  
solar technology has lower costs, land use, and water  
use per megawatts produced compared to traditional utility-  
scale solar generation. (PIER electricity funding.)
  
- ~~24. WATER RESEARCH FOUNDATION. Possible approval of Contract 500-10-056 for  
\$425,000 with Water Research Foundation to advance process optimization and energy  
efficiency in the water industry and to develop a roadmap that identifies and prioritizes energy  
efficiency research and development opportunities in the water and wastewater industries.  
(PIER electricity funding.)~~
  
- 25. UNIVERSITY OF CALIFORNIA, BERKELEY. Possible approval 67  
of Contract 500 10 047 for \$900,000 with the Regents of  
the University of California, on behalf of the Berkeley  
campus, to develop long-term energy scenarios for California  
using a geographical information system framework and high  
temporal resolution to properly model intermittent sources  
of electricity. (PIER electricity funding.)

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b. In the Matter of U.S. Department of Energy (High Level Waste Repository), (Atomic Safety Licensing Board, CAB-04, 63-001-HLW);	
c. Public Utilities Commission of California (Federal Energy Regulatory Commission, Docket No. EL10-64-000); and Southern California Edison Company, et al. (Federal Energy Regulatory Commission, Docket No. EL10-66-000).	
d. Western Riverside Council of Governments v. Department of General Services (Riverside County Superior Court RIC10005849); California Energy Commission v. Superior Court (WRCOG) (California Court of Appeal E052018);	
e. 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));	
f. Richard Latteri v. Energy Resources, Conservation and Development Commission, et al. (Sacramento County Superior Court, 34-2011-99985).	
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P R O C E E D I N G S

MAY 31, 2011 10:05 a.m.

CHAIRMAN WEISENMILLER: Good morning. Let's start today's Business Meeting with the Pledge of Allegiance.

(Whereupon, the Pledge of Allegiance was received in unison.)

CHAIRMAN WEISENMILLER: Good morning. We have a few items that are going to be held. The first is on the Consent Calendar. It's Item 1F and then on the rest of the Business Meeting Items 16-24 will be held. So with that, let's start on the Consent Calendar.

COMMISSIONER PETERMAN: I'll move.

COMMISSIONER BOYD: All right. I'll second.

COMMISSIONER PETERMAN: I have to recuse myself.

CHAIRMAN WEISENMILLER: Let's go through the sequence. So you're recusing yourself from-

COMMISSIONER PETERMAN: Item A on the Consent Calendar.

CHAIRMAN WEISENMILLER: Okay.

COMMISSIONER PETERMAN: Due to a previous financial arrangement I had with UCEI which is a subsidiary of CIEE at UC Berkeley.

1                   COMMISSIONER BOYD:  And then perhaps we  
2  should break the Consent Calendar—

3                   CHAIRMAN WEISENMILLER:  Let's break it into  
4  pieces.  Let's move Item A to a separate Item and  
5  let's deal with A first and then come back to the rest  
6  of the consent calendar.

7                   COMMISSIONER DOUGLAS:  All right.  I'll move  
8  Item 1-A.

9                   COMMISSIONER BOYD:  Second.

10                  CHAIRMAN WEISENMILLER:  All in favor?

11                  (Ayes.)  Item 1-A passes.

12                  Let's now take up the rest of the Consent  
13  Calendar.  Yes.  Welcome back.  Do I have a motion on  
14  the rest of the Consent Calendar?

15                  COMMISSIONER BOYD:  I'll move the balance of  
16  the Consent Calendar and I would just like to point  
17  out on the Consent Calendar is another—the City of  
18  Pacifica's Building Energy Efficiency's Standards that  
19  are greater than the state.  These have become more  
20  and more routine.  We've moved this subject to consent  
21  but the city deserves notoriety for doing this.  So in  
22  moving the Consent Calendar, I'll also point out that  
23  this is a plus.  Except 4F which has already been  
24  removed.

25                  COMMISSIONER PETERMAN:  I'll second.

1 CHAIRMAN WEISENMILLER: All in favor?  
2 (Ayes.) This Item also passed unanimously.

3 Let's go to Item 2. Energy Commission  
4 Committee Appointments. Possible approval of Siting  
5 Committee appointment to the Calico Solar Project  
6 Amendment (08-AFC-13C), and ratification of prior  
7 Siting Committee orders and actions relating to the  
8 Calico Solar Project Amendment (08-AFC-13C). Galen.

9 MS. LEMEI: Good morning, Chair Weisenmiller  
10 and Commissioners. I'm Galen Lemei, Advisor to  
11 Commissioner Douglas. I'm here to ask for the  
12 Commission to take two actions related to a Siting  
13 matter referred to as the Calico Solar Project  
14 Amendment. The first action is to appoint the  
15 Commission's Siting Committee comprised of Presiding  
16 Member Douglas and Associate Member Weisenmiller to  
17 this matter. The second action is to ratify all  
18 actions and orders already taken to date by the Siting  
19 Committee related to this matter. Briefly, by way of  
20 background, last year in December the Committee  
21 approved the Calico Solar Project located on federal  
22 land in San Bernardino County. It was a nominal  
23 generating capacity of 663.5 megawatts using solar  
24 thermal technology. In March of 2011, the Project  
25 Donor submitted a petition to amend the Commission's

1 decision to make a number of modification to the  
2 approved Project. The Commissioner Siting staff  
3 preliminary review of the petition caused staff to  
4 determine that it would be appropriate for the  
5 Commission to process the petition as a major  
6 amendment requiring Committee oversight. Siting staff  
7 asked the Siting Committee to exercise oversight of  
8 the Project amendment which the Siting Committee has  
9 done. To date, with regards to the petition, the  
10 Siting Committee has taken actions that include  
11 conducting an informational hearing and site visit,  
12 granting intervener status to nine parties, issuing  
13 scheduling, briefing and procedural orders, conducting  
14 a status conference and allowing a party to ask be  
15 active in data requests and inviting parties to brief  
16 a number of thresholds, legal and factual issues. I'm  
17 happy to answer any questions otherwise I ask the  
18 Commission to take these actions.

19 COMMISSIONER DOUGLAS: On behalf of the  
20 Siting Committee, I conducted the informational  
21 hearing which we held in Barstow and we had a site  
22 visit. We had the applicant's staff there and a  
23 number of interveners petitioned to intervene. All of  
24 the petitioners have been granted the status of  
25 intervener in this amendment. The amendment, because

1 of the high profile and potential controversy in this  
2 case, the Siting Committee when it saw this amendment  
3 moved to hold an informational hearing and hold a  
4 fairly formal amendment process as opposed to a  
5 potentially less formal route that many amendments go  
6 through. So the Siting Committee also moved very  
7 quickly because of the timeline and I don't know if  
8 Officer Vaccaro is here but—oh there she is—but in any  
9 case she can attest to the extremely difficult  
10 timeline processing this amendment and for that reason  
11 the Siting Committee decided that it needed to move  
12 forward very quickly with scheduling the informational  
13 hearing.

14           CHAIRMAN WEISENMILLER: I was going to say  
15 that as the other member of the Siting Committee and  
16 the other member of this Committee I agree that all of  
17 us in this agency last year put a high priority on  
18 moving the ARRA projects through in a timely fashion.  
19 Obviously the federal timeline was extended but at the  
20 same time this project may or may not be able to  
21 qualify if we were to take timely action. So I  
22 appreciate the necessity to move this forward but also  
23 to make sure that we haven't given the unprecedented  
24 nature of this case in some respect an opportunity for  
25 participation in this process.

1           COMMISSIONER DOUGLAS:  If there are no other  
2 comments, are there any other comments or questions  
3 Commissioners?  Well then I will move Item 2.

4           COMMISSIONER BOYD:  Second.

5           CHAIRMAN WEISENMILLER:  All in favor?

6           (Ayes.) This also passed unanimously.  Thank  
7 you.

8           Item 3.  THE RESULTS GROUP.  Possible  
9 approval of Contract 400-10-014 for \$75,000 with The  
10 Results Group for strategic planning services to  
11 assist the Energy Commission's Efficiency and  
12 Renewable Energy Division's evaluation and  
13 implementation of strategic priorities, structural re-  
14 alignment, project management protocol and stakeholder  
15 engagement efforts.  (ERPA funding.)  Panama?

16           MR. BARTHOLOMY:  Good morning, Mr. Chair,  
17 Commissioners.  Welcome back from vacation.  My name  
18 is Panama Bartholomy.  I'm the Deputy Director for  
19 Efficiency and Renewables Division here at the Energy  
20 Commission.  I'm coming to you today to ask for your  
21 approval of a contract with The Results Group to help  
22 the Efficiency and Renewables Division work with  
23 Policy Committees and stakeholders to identify key  
24 priorities for the division moving forward and then to  
25 assist us in developing a structural realignment of

1 staffing assignments to be able to most efficiently  
2 deliver upon those priorities. The policy changes  
3 over the last few years, in particular AB-758, a 33  
4 percent renewable portfolio standard and then the  
5 upcoming Public Good Charges Reauthorization is  
6 causing significant need for a time to take a look at  
7 our current structure and think about how we can best  
8 deliver upon these new strategies and the new  
9 administration priorities within our structure. This  
10 will help us do that as well as help us develop common  
11 project management protocol within the organization to  
12 better allow for greater transparency and  
13 accountability within our operations.

14 Results Group was procured through the  
15 California Multiple Awards schedule process and would  
16 be happy to answer any questions and ask for you to  
17 take action on approval of this contract if you see  
18 fit.

19 CHAIRMAN WEISENMILLER: Commissioners, any  
20 questions or comments?

21 COMMISSIONER BOYD: I guess, Panama, a  
22 question. I'm sorry I didn't have time to get briefed  
23 on this now after I read it over the weekend. Are you  
24 comfortable that all of the programs and the policies  
25 for programs in the division will be established in

1 time to be reflected in this process in light of the  
2 significant discussions going on with regard to some  
3 of our program activities. To me it doesn't make  
4 sense to design an organization structure until we're  
5 comfortable with what our program, goals and  
6 objectives are. Is the timetable for carrying this  
7 out going to work such that you are confident that we  
8 will know what our program policies are so that you  
9 can then design the organization structure that these  
10 folks can help you with that to meet that program  
11 format?

12 MR. BARTHOLOMY: Commissioner, I think that  
13 the current timeline is going to line up particularly  
14 well with this legislative section. If approved  
15 today, this contract would then go to the Department  
16 of General Services which could take anywhere from two  
17 weeks to a month for approval and so that has us  
18 starting work in about the mid-July timeframe on this.  
19 At that point we'll be working with the policy  
20 committees for the scoping of setting policy  
21 priorities. We're not going to get down into actual,  
22 the detailed on the ground work of agreeing on this  
23 policy priorities with the priority Committees until  
24 the end of legislation session. So it'll be  
25 concurrent with the Good Charge conversation but the

1 current plan is absolutely to reflect the  
2 conversations that happen concurrently and then  
3 finally with the adoption of the new Public Good  
4 Charge, and any other legislation that may affect our  
5 priorities going forward, so we're going to have a  
6 number of months after the legislative session ends to  
7 be implementing this. I think it's going to line-up  
8 well, Commissioner. I'd be happy to talk to you more  
9 offline if you'd like about how to ensure that any  
10 particular parts are in alignment.

11 COMMISSIONER BOYD: Well, thank you for the  
12 offer. I think we'll probably have to have ongoing  
13 discussions as we watch the debate in the legislature  
14 gives us. I see the final presentation of an action  
15 plan to the CEC is in the timetable here, scheduled  
16 for September 14, and I would agree with you. I hope  
17 that everything is resolved in time for that to  
18 reflect that. All right. Thank you.

19 COMMISSIONER PETERMAN: Commissioner Boyd, I  
20 have the same concern and we discussed this when we  
21 had our briefing and discussed the value potentially  
22 of doing this now and moving forward and being  
23 cognizant of the larger policy issues that are  
24 occurring.

25 COMMISSIONER BOYD: Thank you.

1                   COMMISSIONER DOUGLAS: I would agree that  
2 it's very important how we assess how we're deploying  
3 the resources, the staff and the talent that we have  
4 available given changing priorities and given new  
5 responsibilities, significant responsibilities, for  
6 that division. I'm in support and obviously the work  
7 will have to reflect changes that are in action and in  
8 areas where we don't actually know what new priorities  
9 legislature might, for example, provide in addition to  
10 the ones I mentioned. So anyway, I'm strongly  
11 supportive of this. I will move Item 3. I'm sorry,  
12 what Item are we on? Three. All right. I move Item  
13 3.

14                   COMMISSIONER PETERMAN: If there are no  
15 further comments, I'll second that motion.

16                   CHAIRMAN WEISENMILLER: Okay. All in favor?  
17                   (Ayes.) This passed unanimously. Thank you  
18 Panama.

19                   Item 4. CALIFORNIA INSTITUTE FOR FOOD AND  
20 AGRICULTURAL RESEARCH. Possible approval of Contract  
21 400-10-013 for \$425,000 with the Regents of the  
22 University of California, California Institute for  
23 Food and Agricultural, to support the implementation  
24 of the Department of Energy Superior Energy  
25 Performance Program in the food and beverage industry.

1 (DOE funding.) Tony?

2 MR. WONG: Good morning, Chairman and  
3 Commissioners. My name is Tony Wong with the  
4 Appliances and Process Energy Office of the Efficiency  
5 and Renewable Energy Division. The proposed contract  
6 is funded with the Department of Energy's Industrial  
7 Technologies Program Grant. The California Institute  
8 of Food and Agriculture Research, CIFA, at the  
9 University of California - Davis will provide  
10 technical support to the Commission's Industrial  
11 Program effort to advance energy efficiency practice  
12 systems in food processing industry. CIFA will also  
13 recruit food processing companies to participate in  
14 the Department of Energy's Superior Energy Performance  
15 Program. This is a new program that will help  
16 industrial facilities to identify energy efficiency  
17 opportunities to understand how to implement energy  
18 efficiency improvements and also to apply a consistent  
19 organizational structure to effectively manage energy  
20 use. CIFA will promote a Department of Energy's Best  
21 Practices Training Education Program courses and offer  
22 the Commission's sponsored Energy System Assessment  
23 for steam, compressed air, pump and process heating  
24 systems. CIFA will also produce a case study brochure  
25 from plan assessment previously conducted at the food

1 processing industries and informational material will  
2 be produced to promote compress air system and risk  
3 assessment services. I'm requesting the Commission  
4 approve this contract.

5 CHAIRMAN WEISENMILLER: Commissioners, any  
6 questions or comments?

7 COMMISSIONER BOYD: Yes, question please, or  
8 maybe it's more of a comment. One, I'm highly  
9 supportive of this project but--well, this is not a  
10 disappointment but I want to address this to our  
11 research folks as well as others. This is a piece of  
12 the system and it's a very positive piece but in food  
13 processing it would really be nice if we could somehow  
14 or another address, by finding perhaps another program  
15 to dovetail this with, the rest of the process. Not  
16 so much from an efficiency standpoint, unless there's  
17 more to be realized there, but if we're working with  
18 this industry, if we're working with the university,  
19 it would be nice to follow the material all the way  
20 through the process and look at the end of the line  
21 waste material and what efficiencies or what products  
22 or what things can be done in that arena as well  
23 because oftentimes those materials lead to  
24 environmental problems for California and, as some  
25 people know here, I'm quite interested in using those

1 materials for other energy purposes. I'm just  
2 wondering if there's some dovetail, plug-in module  
3 that we could add to this and have folks look at a  
4 greater part of the system as they do these kind of  
5 activities.

6 As for this effort, this is a great effort.  
7 I think many of us brag upon this agency's work in  
8 efficiency in agriculture in California so I think  
9 it's very good to be doing this. I'm very glad to be  
10 seeing DOE offering up this program. Anyway, that's  
11 just a comment and not so much a question unless you  
12 happen to have an answer to volunteer.

13 MR. WONG: As part of this study, also, the  
14 UC Davis will help us to develop a methodology to  
15 account for better energy in the water sources and  
16 also the waste water area. Reluctantly, I can't get  
17 into very much detail in the biogas production arena.

18 COMMISSIONER BOYD: Well, I was addressing  
19 it to the Deputy Director to perhaps think about it in  
20 the future to the other synergistic opportunities  
21 here. Thanks.

22 CHAIRMAN WEISENMILLER: Any other questions  
23 or comments?

24 COMMISSIONER BOYD: If no other questions, I  
25 move approval of the Item.

1           COMMISSIONER PETERMAN: I also support this  
2 measure and I'll second that motion.

3           CHAIRMAN WEISENMILLER: All in favor?

4           (Ayes.) This passed unanimously. Thank  
5 you.

6           MR. WONG: Thank you.

7           CHAIRMAN WEISENMILLER: The next Item is the  
8 California Department of Transportation. Possible  
9 approval of Contract 600-10-008 for a \$250,000  
10 Interagency Agreement with the California Department  
11 of Transportation to add 500 completed surveys to the  
12 1,200 households in the California Household Travel  
13 Survey that Caltrans has planned for the GPS and on-  
14 board diagnostic data loggers vehicle instrumentation.  
15 These funds will be used to increase the number of  
16 renewable and alternative fueled vehicles in the  
17 survey and the accuracy of on-road fuel economy  
18 measurement. This is ARFVT funding. Aniss?

19           MS. BAHREINIAN: Good morning,  
20 Commissioners. My name is Aniss Bahreinian and I'm  
21 coming to you for approval of this interagency  
22 agreement with CalTrans. CalTrans conducts a  
23 statewide Household Travel Survey every 10 years. And  
24 this time around it is planning for a survey of 60,000  
25 households in California. This is a rare opportunity

1 to collaborate in a \$10 million plus project not only  
2 with CalTrans but also with other state and local  
3 agencies. For the first time, CEC's working with  
4 CalTrans to align and coordinate surveys as well as  
5 adding surveys. This collaboration has already  
6 resulted in multiple benefits such as improving  
7 quality of your final product and increasing data  
8 consistencies in agencies. The second interagency  
9 agreement will contribute \$250,000 to a \$10 million  
10 project which is going to add about 500 computer  
11 surveys for households with alternative and renewable  
12 fuel vehicles. So the 500 additional households are  
13 going to be selected from those households that are  
14 going to have renewable alternative fuel vehicles.  
15 These 500 households will be equipped with both GPS  
16 and OBD, or onboard diagnostics and data loggers, to  
17 better measurement of both their travel behavior and  
18 on road fuel consumption that is specific to  
19 California demographics, driver behavior as well as  
20 California road conditions and infrastructure. As  
21 many of you know, there is already data on fuel  
22 economy but most of these are national, at the  
23 national levels. So this is going to capture  
24 California specific conditions.

25 One week of OBD data will be collected for

1 each household. Device specifications and data  
2 elements have been determined in a technical advisory  
3 committee that is composed of both CEC, ARFVT and  
4 CalTrans. So we worked with a technical advisory  
5 committee to identify what device they should be using  
6 and what kind of data should be collected.

7 This collaboration will result in higher  
8 quality and higher quantity of data with substantial  
9 savings of public funds and it will also reduce  
10 redundant and divergent activities. So if you'll  
11 reduce duplications between different agencies, it  
12 will increase consistency with different agencies and  
13 it will provide better data to many public agencies.  
14 A lot of different state and local agencies will have  
15 access to this data.

16 The results will also improve the accuracy  
17 of the 2013 IEPR Forecast and Policy Analysis and  
18 better understanding of fuel choice. GPS also  
19 connects everything to land use so the data that will  
20 become available can be used, not as part of this  
21 project but in a data project, can be used to link to  
22 land use as well. Any questions?

23 COMMISSIONER BOYD: I have no questions. I  
24 was going to comment that the Fuel and Transportation  
25 Committee has discussed this subject here for quite

1 some time. I want to commend the staff for the work  
2 they've done in this area as Aniss indicated and I  
3 commend her. This is the first time, and for a very  
4 small investment, we're piggybacking on a very large  
5 activity that will benefit a multitude of agencies and  
6 programs as she indicated. It will really help us in  
7 the future in terms of data we have to influence the  
8 decisions we make with regard to the investments we  
9 make in both alternative vehicle technologies,  
10 alternatives fuels and in that the neglected, broken  
11 third leg of the transportation energy area the land  
12 use and transportation module. The integration of  
13 land use and transportation planning into the  
14 decisions that a lot of us in various agencies make so  
15 I'm very supportive of this and move its approval.

16 COMMISSIONER DOUGLAS: Second.

17 CHAIRMAN WEISENMILLER: Any other questions  
18 or comments?

19 COMMISSIONER PETERMAN: I'll just comment  
20 also that as we're increasingly trying to deploy and  
21 utilize alternative fuel vehicles, it's useful to have  
22 this data to understand how the preferences and  
23 driving behaviors of these customers might be  
24 different from others. So I also support this motion.

25 CHAIRMAN WEISENMILLER: The motion has been

1 seconded. All in favor?

2 (Ayes.) This also passed unanimously.

3 Thank you.

4 MS. BAHREINIAN: Thank you very much. I  
5 should also add that Mr. Pete Spaulding of CalTrans is  
6 here and prepared to present statement in support of  
7 the project.

8 CHAIRMAN WEISENMILLER: That's great.  
9 Please move forward.

10 MR. SPAULDING: Good morning, Commissioners.  
11 Thank you very much for passing that Item. I also  
12 want to thank the CEC for their participation in this  
13 project. It's probably been about two years that CEC  
14 staff have been working with us to develop the scope  
15 of work for the consultant to develop the RFP. As  
16 Aniss mentioned, the technical advisory committee that  
17 helped look at the data items that would be collected  
18 by the onboard diagnostic equipment. But CEC, Aniss  
19 and Bob McBride have been really super active  
20 participants in these dialogues that we've had. It's  
21 really helped us tremendously. And as you mentioned,  
22 this is benefiting not only CalTrans and our statewide  
23 modeling efforts but also the Air Resources Board, the  
24 Energy Commission and their understanding of  
25 alternative fuel vehicles. We're also working with

1 all the MPOs across the state. All this data is being  
2 shared with them and it's going to go into their  
3 modeling processes which are at various levels of  
4 development. Some are the traditional four step  
5 models, some are the activity based models so we're  
6 finally getting around to getting that land use  
7 transportation connection that we all need for energy  
8 and air quality and transportation purposes. So thank  
9 you for your support. We look forward to working with  
10 you over the next few years on this.

11 COMMISSIONER BOYD: Thank you for being here  
12 and supporting the Item. Obviously, you see the  
13 support of this Commission in that even before you'd  
14 given us all these good words we'd leaped at the  
15 occasion. In any event, I think it's very good. And  
16 as you indicated, two years of a lot of effort on part  
17 of a lot of people. Some of us who are graduates of  
18 the ARB remember the creation of onboard diagnostics  
19 so it's a long time ago which is now beginning to take  
20 off for lots of us.

21 CHAIRMAN WEISENMILLER: Thank you for coming  
22 today. Item number 6. Vehicle Buy-Down Incentive  
23 Reservations. Possible approval of a total of  
24 \$4,005,000 in vehicle buy-down incentive reservations  
25 ARFVT funding. Pete?

1                   MR. WARD: Good morning, Commissioners.  
2 Peter Ward. I'm Program Manager for the Alternative  
3 and Renewable Fuel Vehicle Technology Program. I'm  
4 pleased to bring this Item to you. This is the third  
5 Item on the vehicle buy-down incentives for a total of  
6 a little over \$4 million. With the approval of these  
7 incentives, that would put the total a little over \$10  
8 million of the \$14.5 million available. I'm here to  
9 answer any questions that you might have.

10                   CHAIRMAN WEISENMILLER: Thank you.  
11 Commissioners, any questions or comments?

12                   COMMISSIONER PETERMAN: I would just add  
13 that it's good to see this program continuing and  
14 moving into the area of school buses. A great  
15 opportunity, again, for public transportation as well  
16 as education about efficient energy in transportation  
17 for the youth so I support this motion.

18                   COMMISSIONER BOYD: Well, I'll just comment  
19 that this too was discussed in the Fuels and  
20 Transportations Committee and is recognized as another  
21 positive step in the many of down the pathway of  
22 alternative fuels in this state as we move away from  
23 petroleum and slowly make our way to other forms of  
24 transportation fuels. I would comment that it's good  
25 to see school buses in here but the Energy Commission

1 has a long record of administering a host of school  
2 bus programs so I'm glad to see once again this agency  
3 came up with a funding source to be able to continue  
4 to provide for school buses and to serve those areas  
5 of the state that have difficulty of getting other  
6 forms of alternative fuels. So I'm prepared to move  
7 approval of this Item.

8 COMMISSIONER PETERMAN: Second.

9 CHAIRMAN WEISENMILLER: This motion has been  
10 moved and seconded. All in favor?

11 (Ayes.) This passed unanimously. Thanks  
12 again, Peter.

13 MR. WARD: Thank you.

14 CHAIRMAN WEISENMILLER: Item 7. Lawrence  
15 Berkeley National Laboratory. Possible approval of  
16 Contract 500-10-052 for \$4,911,721 with the U.S.  
17 Department of Energy, Lawrence Berkeley National  
18 Laboratory for 15 projects to improve building and  
19 appliance energy efficiency by developing and  
20 deploying new technologies and standards. PIER  
21 electricity and natural gas funding. Chris?

22 MR. GRAVELEY: Sure.

23 COMMISSIONER PETERMAN: If you can give me  
24 one second.

25 CHAIRMAN WEISENMILLER: Can you wait one

1 second?

2 COMMISSIONER PETERMAN: Chairman, I need to  
3 recuse myself from this Item because I was employed by  
4 the Lawrence Berkeley National Lab through August 2010  
5 so I'll step out now.

6 CHAIRMAN WEISENMILLER: Okay. Thank you.  
7 Go ahead Mike.

8 MR. GRAVELEY: Yeah, I'm Mike Gravely from  
9 the Research Development Division. I just wanted to  
10 give a very little introduction to the upcoming  
11 projects because in the execution of research we do  
12 competitive awards which include number 7 and several  
13 of the ones you deferred to next week indicate are  
14 examples of. We also do work with the National Labs  
15 and with the University of California and other  
16 universities through government agencies so you have  
17 examples of those coming. I just wanted to point out  
18 that in many cases, as in Chris' case, we actually did  
19 limited competition because we don't normally match  
20 laboratories and universities with public and private  
21 industry go together in a seamless solicitation so in  
22 some cases we do actually do a competitive award.  
23 Chris will give you an example of those. In other  
24 cases, we go to the university or the government  
25 agency because they are uniquely qualified to do what

1 we need them to do. And they provide extra services  
2 in case of the laboratory, you'll find that there is  
3 considerable match funding, federal funding and other  
4 funding brought to bear. In the case of the  
5 university, California's Institute of Energy and  
6 Environment allows us to capture the best knowledge  
7 from within all of the universities in California so  
8 we have the ability to tap not just one campus but all  
9 campuses. So I just wanted to provide an overview  
10 that since there are so many of these coming up in a  
11 row that in fact this is part of our overall  
12 portfolio. It just worked out today that there are  
13 several. We do work both with private industry, we  
14 work with universities and laboratories and we do our  
15 best to pick the best opportunity to reach and you'll  
16 see some examples of those today.

17 CHAIRMAN WEISENMILLER: Okay. That's good.  
18 Mike, do you want to talk about the geographical  
19 diversity of these awards at this point?

20 MR. GRAVELY: One of the benefits, for  
21 example, in a university with CIEE is that we were  
22 able to use south and north and the folks at all the  
23 states we work with there. We have been working  
24 consciously to diversify our resources both north and  
25 south and throughout the state and we've also worked

1 to diversity our resources with the laboratories so we  
2 can get as much federal funds as possible. I think  
3 specifically the diversification is better addressed  
4 by each project.

5 CHAIRMAN WEISENMILLER: Okay. Great.  
6 Thank.

7 MR. GRAVELY: Thank you.

8 CHAIRMAN WEISENMILLER: Any questions or  
9 comments, Commissioners?

10 COMMISSIONER BOYD: Excuse me, we need to  
11 hear from Chris about this first Item.

12 MR. SCRUTON: It's my turn?

13 COMMISSIONER BOYD: It's your turn, Chris.

14 MR. SCRUTON: Okay. Morning, Commissioners.  
15 I'm Chris Scruton with the PIER Buildings Team. As a  
16 little bit of background to the next two items that  
17 we're going to present to you. We've been encouraged  
18 to do most of our work through competitive and more  
19 transparent processes. Department of General Services  
20 is not allowing us to compete with private entities,  
21 universities and the national laboratories in the same  
22 competitive solicitation. So what we decided to do in  
23 that spirit was to break down our competitive  
24 processes into three groups. What these two proposed  
25 contracts represent are the first two of those and the

1 third one will be coming later with the private  
2 sector. We're developing that at this time. We  
3 decided to take advantage of our facility to do  
4 interagency agreements with the Lawrence Berkeley Labs  
5 and with the universities, public universities and  
6 within the shell of an interagency agreement to  
7 conduct a quasi-competitive process. It's not really  
8 quasi competitive, it was actually quite competitive  
9 but it was an informal competitive process, we should  
10 say. In the middle of January, we had a bidders  
11 conference and we invited proposals from universities  
12 and the national laboratories and in this first  
13 contract from Lawrence Berkeley Laboratory we got back  
14 45 proposals in the first of February. And we are  
15 proposing 15 of those proposals for funding. There  
16 are five that are related to natural gas use, one in  
17 cool communities, there are three that involve  
18 significant technical innovations, there are three  
19 that involve building standards and building  
20 simulation and then three that are actually being  
21 funded by the Industrial Agriculture and Water Group  
22 that are primarily about data center efficiency.

23 I'd be pleased to answer any questions that  
24 you have about those projects, I invite those and ask  
25 you for your approval. These projects have been

1 reviewed by the R&D Committee and approved. And I'll  
2 ask for your approval at this time.

3 CHAIRMAN WEISENMILLER: Great. Thank you.  
4 Commissioners, any questions or comments for either  
5 Chris or Mike?

6 COMMISSIONER BOYD: Well, my only comment  
7 would be to echo—two things. One, I'd thank Mike for  
8 that overall overview and Chris for explaining the  
9 process that was undergone here. I know this agency  
10 and this program have taken a lot of questions about  
11 process and procedures over the past couple of years  
12 and it's hard for people to understand the  
13 complexities of conducting a research program. It's  
14 pretty obvious to many people that Lawrence Berkeley  
15 National Laboratory has been the locust of building  
16 and appliance energy efficiency expertise in work for  
17 years if not decades which has helped position  
18 California for many years as a leader in building and  
19 appliance energy efficiency and I won't quote the  
20 various numbers of power plants avoided, emissions  
21 avoided and what have you and of course the incredible  
22 dependence in the California climate change program  
23 and its scoping order, frankly, on efficiency measures  
24 which this agency is responsible for. As indicated by  
25 Chris this particular project was reviewed by the

1 Research and Development Committee consisting of its  
2 chairman, our chairman, and myself and I'm prepared to  
3 move approval of the Item.

4 COMMISSIONER DOUGLAS: Second.

5 CHAIRMAN WEISENMILLER: All in favor?

6 (Ayes.) This item passes unanimously.

7 Thanks Chris. The next Item is 8. California  
8 Institute for Energy and Environment. Possible  
9 approval of Contract 500-10-048 for \$3,978,590 with  
10 the Regents of the University of California,  
11 California Institute for Energy and Environment, to  
12 conduct eleven projects to advance distributed energy  
13 and solar hot water generation, and to improve the  
14 efficiency of heating, ventilation, air conditioning,  
15 and lighting systems. This is PIER electricity and  
16 natural gas funding. And again, it's Chris.

17 COMMISSIONER PETERMAN: Chairman, I have to  
18 recuse myself from this Item. I came back just to  
19 tell you that because I was previously employed wit  
20 the Energy Institute which is an energy subsidiary of  
21 the California Institute for Energy and Environment.

22 MR. LEVY: Chairman and Commissioners that  
23 would also apply to Items 10, 11 and 12 as I believe.

24 CHAIRMAN WEISENMILLER: Okay. Thank you.

25 COMMISSIONER BOYD: I'm going to need a

1 briefing from our Chief Counsel on previous employment  
2 conflicts.

3 MR. LEVY: Don't ask.

4 COMMISSIONER BOYD: I have so much previous  
5 employment it scares me a little. In any event.

6 MR. SCRUTON: So the comments that I stated  
7 previously also apply to this in terms of the process.  
8 Our goal here was to really get projects in that  
9 addressed the policy goals of the state that had  
10 practical applications to the energy issues that the  
11 state faces and also to increase the geographic  
12 diversity of our outreach to University of California.  
13 In the past, we've been perhaps too oriented from the  
14 Northern California universities, UC Davis and UC  
15 Berkeley. And as wonderful as they are, we recognize  
16 that there are wonderful resources in the south as  
17 well. So we made a special effort to reach out to the  
18 universities across the state, public universities,  
19 and we couldn't have done this without the assistance  
20 of California Institute for Energy and Environment.

21 Again through the same bidding process we  
22 got in 32 proposals from various universities in  
23 California and we're proposing to fund 11 of those.  
24 There's about half, a little more than half, in the  
25 southern part of the state we have two proposals from

1 the Cooling Center at UC Davis, two from the Lighting  
2 Center at UC Davis, one from UC Berkeley Center for  
3 the Built Environment, one from UC Merced, one from  
4 Cal Poly San Luis Obispo, two from UC Irvine, one from  
5 UC Riverside and one from UC San Diego. And we have  
6 some renewables funding and also some industrial ag-  
7 water funding in these projects. I'd be happy to talk  
8 about the projects if you care to hear about them but  
9 I guess I would invite your questions and mention that  
10 these have been approved by the R&D Committee and I  
11 would ask for your approval.

12 CHAIRMAN WEISENMILLER: Thank you.

13 Commissioners, any questions or comments?

14 COMMISSIONER BOYD: Baring no questions, as  
15 Chris indicated this was vetted and reviewed in the  
16 R&D Committee so I would move approval of the Item.

17 COMMISSIONER DOUGLAS: Second.

18 CHAIRMAN WEISENMILLER: Okay. All in favor?

19 (Ayes.) This passes unanimously. Thanks,  
20 Chris.

21 MR. SCRUTON: Thanks, Commissioners.

22 CHAIRMAN WEISENMILLER: We're now dealing  
23 with Item 9. National Renewable Energy Laboratory.  
24 Possible approval of Contract 500-10-053 for \$4.25  
25 million with the U.S. Department of Energy, National

1 Renewable Energy Laboratory to develop and demonstrate  
2 natural gas engines that meet or exceed California Air  
3 Resources Board 2010 emissions standards and have been  
4 integrated into refuse, transit, and Class 8 heavy-  
5 duty truck chassis. This is PIER natural gas funding.  
6 And Reynaldo?

7 MR. GONZALEZ: Morning, Chairman  
8 Weisenmiller and Commissioners. My name is Rey  
9 Gonzalez and I'm the Staff Lead for PIER  
10 Transportation and Vehicle Technologies focus area.  
11 I'm requesting approval of the agreement with the  
12 National Renewable Energy Laboratory for \$4.2 million.  
13 The purpose of this project is to conduct research  
14 that will increase the use of natural gases in  
15 transportation and fuel by developing advanced natural  
16 gas engines and vehicle technologies to address  
17 regulatory and economic barriers. As a transportation  
18 fuel, natural gas could offset over 750 million  
19 gallons of diesel per year by 2022. Using today's  
20 dollars, that's an estimated \$1.35 billion per year  
21 while reducing greenhouse gas emissions by 4 million  
22 metric tons per year. In early 2010, the U.S.  
23 Department of Energy directed \$5 million of funding  
24 from natural gas engine research and development with  
25 the requirement to encumber those funds by the 2010

1 fiscal year or the end of the 2010 fiscal year. DOE  
2 selected NREL to conduct a competitive solicitation  
3 and to subsequently manage the research projects.  
4 NREL, who had not been active in natural gas vehicle  
5 research and with this tight timeline contacted Energy  
6 Commission PIER staff to help in defining the research  
7 scope.

8 PIER staff also provided information with  
9 the research projects that we had funded previously  
10 and also looking at recommendations from the Natural  
11 Gas Vehicle Research Roadmap. It was at this time  
12 that we contacted South Coast Air Quality Management  
13 District to also participate in these discussions and  
14 soon afterwards a partnership was proposed where all  
15 three entities would provide funding.

16 NREL released a competitive solicitation in  
17 March of 2010 and once proposals were received, PIER  
18 staff participated in all phases of proposal reviewing  
19 and scoring. Preliminary NOPA was released in August  
20 of 2010 and NREL has been completing contract  
21 negotiations with one remaining contract to be  
22 finalized.

23 The objective of this project and through  
24 the three independent project teams that are rewarded  
25 is to develop a total of three natural gas engines

1 that meet or exceed CARB 2010 emission standards,  
2 integrate these engines into refuse transit and Class  
3 A vehicles and conduct demonstrations in the  
4 appropriate vehicle locations. The overall funding  
5 structure is that the DOE is providing \$5 million, the  
6 Energy Commission is proposing \$4.25 million and South  
7 Coast Air Quality Management District is contributing  
8 \$3 million of which \$500,000 is provided by the  
9 Southern California Gas Company. This is a total of  
10 \$12.25 million with a recipient cost share of \$5.2  
11 million.

12           The benefits to California include  
13 leveraging dollars from DOE to meet California goals  
14 of reducing petroleum dependency and lowering greenhouse  
15 gas emissions. This project also provides a pathway  
16 to enable renewable natural gas as a transportation  
17 fuel and this is mainly driven by developing  
18 additional natural gas engines and demonstrating those  
19 in a variety of different vehicles. This will also  
20 further accelerate natural gas vehicle technology into  
21 the marketplace through the expanded funding of all  
22 agencies.

23           There's also one project team that is both  
24 funded by PIER and the NREL agreement and the  
25 Alternative and Renewable Fuels and Vehicle Technology

1 Program. And both program worked together to ensure  
2 that there were no task duplication and that both  
3 agreements complimented one another.

4 I'm requesting approval of this agreement  
5 and at this time I can answer questions.

6 CHAIRMAN WEISENMILLER: Thank you. Welcome  
7 back Commissioner Peterman. Do we have any questions  
8 or comments?

9 COMMISSIONER BOYD: If no questions, a  
10 comment. Kudos to the staff for their involvement in  
11 this project. I think it speaks to the wisdom of this  
12 agency sometime back when it courageously pushed the  
13 subject of natural gases as a fuel to be reckoned with  
14 in the transportation sector. I think it's noteworthy  
15 that Mr. Gonzalez mentioned that DOE sought the  
16 guidance of the CEC in this arena. I commend him for  
17 referencing renewable natural gas which has more and  
18 more potential in this state if we can get past some  
19 of our hang-ups with bioenergy and therefore I think  
20 this activity is going to well serve the vehicle area  
21 in California in future years and as indicated fairly  
22 significant effects on production in the use of  
23 petroleum and the reduction in emissions, particularly  
24 emissions of concern being diesel in nature. I'm  
25 prepared to—this project was reviewed and recommended

1 to you by the R&D Committee and I'm prepared to move  
2 its approval.

3 COMMISSIONER PETERMAN: I'll second the  
4 motion.

5 CHAIRMAN WEISENMILLER: All in favor?

6 (Ayes.) This passed unanimously. Thank  
7 you.

8 MR. GONZALEZ: Thank you.

9 COMMISSIONER PETERMAN: Chairman, I have to  
10 recuse myself from Items 10-12 because I was employed  
11 within the last 12 months by a subsidiary of the  
12 California Institute for Energy and Environment.  
13 Thanks.

14 COMMISSIONER BOYD: Thank you for that  
15 clarification because I was worried we were going to  
16 be excusing you in perpetuity here. I'd like to see  
17 you back here.

18 CHAIRMAN WEISENMILLER: I would note that  
19 when I was employed, it was actually the Lawrence  
20 Berkeley Lab and last time I checked they couldn't  
21 find my employment records since they were paper and  
22 had gone off to Livermore.

23 COMMISSIONER BOYD: I've had that experience  
24 lately as people begin to check how long I've been  
25 around and the paper records are hard to find.

1                   CHAIRMAN WEISENMILLER:  And at that point,  
2  there was obviously not an energy division but anyway.  
3  So, it was a long time ago.

4                   Let's look at Item 10.  California Institute  
5  for Energy and Environment.  Possible approval of  
6  Contract 500-10-049 for \$2,515,918 with the Regents of  
7  the University of California, California Institute for  
8  Energy and Environment, to demonstrate PIER-developed  
9  and other energy efficient emerging technologies at  
10  institutions of higher learning and other venues in  
11  California, and to pilot a wide-scale deployment  
12  program for established technologies that represent  
13  best practices for efficiency in energy-using systems.  
14  This is PIER electricity funding.  David?

15                  MR. WEIGHTMAN:  Yes, good morning,  
16  Commissioners.  My name is David Weightman.  I'm the  
17  Contract Manager with the PIER Buildings Program.  And  
18  the agreement seeking your approval is a three year  
19  interagency agreement with the CIEE to continue our  
20  demonstration program and PIER we call the State  
21  Partnership for Energy Efficiency Demonstrations.  We  
22  originally established this program in 2004.  We've  
23  done over 110 demonstrations to date.

24                  This program serves as a catalyst to promote  
25  the commercialization path for cutting edge energy and

1 efficiency technologies that are just emerging. We've  
2 developed this portfolio of best practice lighting,  
3 HVAC and data center technologies over the years and  
4 this will help facilities move us closer towards our  
5 zero net energy buildings goals. So we want to  
6 continue that program. As you mentioned, this program  
7 is going to move into a new phase called Scaled  
8 Deployment. A number of our technologies have been  
9 demonstrated quite a bit and we feel that they're  
10 proven in terms of cost effectiveness and efficacy so  
11 with those we're going to market those as a wholesale  
12 retrofit opportunity to facilities in addition to  
13 continuing the demonstrations of the newer  
14 technologies. So primarily we're going to work with  
15 the institutions of higher learning in California  
16 although we will seek selected venues at private  
17 sector companies, local governments and—Right now the  
18 program is working diligently with the Navy and Marine  
19 facilities in southwest California to promote our  
20 technologies. Our goal is to help them put the  
21 specifications for PIER technologies into their  
22 retrofit programs. I understand that they have about  
23 \$60 million they can spend on retrofits. We're hoping  
24 that we're going to widely deploy PIER technologies in  
25 California and globally.

1           This was approved by the R&D Committee and  
2 I'm here to answer any questions.

3           CHAIRMAN WEISENMILLER: Commissioners, any  
4 questions or comments?

5           COMMISSIONER BOYD: If no questions or  
6 comments by my fellow Commissioners, again as a  
7 representative of the R&D Committee as indicated, this  
8 was reviewed in that Committee and approved and I'm  
9 prepared to move its approval here today.

10          COMMISSIONER DOUGLAS: I'll just briefly  
11 comment that it's good to get to this stage of  
12 deployment and this looks like a good opportunity to  
13 test this out at much more of a higher scale some of  
14 these interesting technologies. So with that I'll  
15 second Item 10.

16          CHAIRMAN WEISENMILLER: This Item has been  
17 moved and seconded. All in favor?

18          (Ayes.) This passes unanimously. Thank  
19 you.

20          MR. WEIGHTMAN: Thank you.

21          CHAIRMAN WEISENMILLER: Let's go to Item 11.  
22 California Institute for Energy and Environment.  
23 Possible approval of Contract 500-10-023 for \$300,000  
24 with the Regents of the University of California,  
25 California Institute for Energy and Environment, to

1 track the progress and capture technical knowledge  
2 from California projects funded by the United States  
3 Department of Energy under the American Recovery and  
4 Reinvestment Act of 2009 to inform California utility  
5 smart grid implementation plans and Commission  
6 research roadmaps. This is PIER electricity funding.  
7 Pedro?

8 MR. GOMEZ: Good morning, Chairman.  
9 Commissioners. My name is Pedro Gomez and I am a team  
10 lead in the PIER Program. I am here to request  
11 approval of a \$300,000 14 month contract with the  
12 Regents of the University of California, California  
13 Institute of Energy and Environment. This project  
14 will capture the technical knowledge from 15  
15 California-based projects and they are smart grid  
16 projects. These projects were funded through the  
17 American Recovery and Reinvestment Act Grants. Over  
18 \$1.3 billion will be invested in California through  
19 projects with investor-owned utilities, publicly owned  
20 utilities, research institutions and private industry  
21 over the next several years. Some of the areas of  
22 most-of considerable importance to California are what  
23 are the potential benefits and costs of the new  
24 technologies being introduced and demonstrated through  
25 these projects, what is the potential of workforce

1 development, what are the barriers to the adoption of  
2 these new technologies, what are the key issues with  
3 regards to standards, interoperability, security and  
4 privacy, do the new technologies being integrated do  
5 they work with the existing grid infrastructure.  
6 These are some of the questions that we look to learn  
7 through this project. The knowledge gained from this  
8 effort will be used to inform California utility's  
9 smart grid integration plans and will also be used to  
10 further refine California's research initiatives.  
11 This concludes my presentation and I would like to  
12 address any questions you may have.

13 CHAIRMAN WEISENMILLER: Thank you.

14 Commissioners, any questions or comments?

15 COMMISSIONER DOUGLAS: Briefly, I think this  
16 is a really important step. Because of the Recovery  
17 Act, there's been a tremendous uptick in funding for  
18 smart grid and just a really large investment in  
19 various parts of the state and so, tracking lessons  
20 learned and achievements of this funding is going to  
21 be very important in addition to making sure that we  
22 plan around what is happening that ensure  
23 interoperability and other system requirements. I'm  
24 pleased to see this project going forward.

25 COMMISSIONER BOYD: As Mr. Gomez indicated,

1 this has been reviewed by the R&D Committee and I  
2 would say reviewed at great length and project  
3 modified by the staff as a result of the dialogue  
4 between the Committee members and the staff and I'm  
5 pleased to indicate that the Committee then  
6 recommended the project for consideration here today.  
7 And as a representative of that Committee, I'm  
8 prepared to move its approval.

9 COMMISSIONER DOUGLAS: Second.

10 CHAIRMAN WEISENMILLER: All in favor?

11 (Ayes.) This passed unanimously. Thanks  
12 Pedro.

13 MR. GOMEZ: Thanks, Commissioners.

14 CHAIRMAN WEISENMILLER: Item 12. California  
15 Institute for Energy and Environment. Possible  
16 approval of Contract 500-10-055 for \$1,027,230 with  
17 the Regents of the University of California,  
18 California Institute for Energy and Environment, to  
19 provide program support in the areas of technology  
20 assessments, research gap identification, technology  
21 roadmap development and coordination, and research  
22 technology transfer activities. This is PIER electric  
23 support funding. Jamie?

24 MR. PATTERSON: Good morning, Commissioners.

25 I am Jamie Patterson, Senior Electrical Engineer in

1 the Energy Research and Development Division. I am  
2 here to ask for approval of the 36 months support  
3 contract with the Regents of the University of  
4 California, California Institute of Energy and  
5 Environment to provide program support in preparing  
6 technical analysis for the PIER program. Primary  
7 focus is providing support in the areas of electric  
8 transmission and distribution grid, renewable utility  
9 scale and distributed generation, technical challenges  
10 that are associated with renewable technologies,  
11 renewable energy resource mapping and assessment of  
12 renewable energy resources, costs associated with  
13 renewable energy systems and assessing the  
14 implications of energy storage, demand response,  
15 distributed generation, electric vehicle charging and  
16 other technologies or practices for meeting  
17 California's Energy Policy Goals. This is contracted  
18 for \$1,027,230 and will last 36 months ending on June  
19 30, 2014. In addition to research money, PIER's  
20 authorized support funding for these activities and  
21 these activities fall into that category. I can  
22 answer any questions that you may have.

23 CHAIRMAN WEISENMILLER: Thank you.

24 Commissioners, any questions or comments?

25 COMMISSIONER BOYD: I accept that challenge.

1 Let's see if you can answer any questions.

2 (LAUGHTER.)

3 There's a very interesting article in  
4 yesterday's local newspaper about microgrids.

5 MR. PATTERSON: By Peter Asmus.

6 COMMISSIONER BOYD: Yes. And a lot of  
7 discussion in your introduction about distributed  
8 generation. I wonder if you might indicate to the  
9 extent to which this activity here will include some  
10 look at and work on microgrids.

11 MR. PATTERSON: Actually, I anticipate that  
12 that will be part of their functions. As you know, as  
13 California moves toward a comprehensive smart grid  
14 across the entire state that could be evolving through  
15 a system of micro grids that will be interconnected  
16 and will be able share resources across the grid. As  
17 such, and also to support other energy policy goals.  
18 For example, the 12,000 megawatts of distributed  
19 generation that we are looking forward to analyzing  
20 for the use on state lands. We will probably be using  
21 CIEE to help gather some of the materials to help  
22 provide such feasibility analysis and support for  
23 those activities.

24 COMMISSIONER BOYD: Thank you. I knew you  
25 could handle it. I just want to comment that I

1 thought that was an outstanding article. I recommend  
2 it to any of my fellow Commissioners who didn't happen  
3 to see it yet. It does raise an issue of concern that  
4 perhaps not all people engaged in smart grid activity  
5 also include the concept of micro grids in that  
6 dialogue or in those studies. For reasons I won't go  
7 into but it does seem to me that if we are able to  
8 fulfill the Governor's charge for a significant amount  
9 of distributed generation we really do have to look  
10 more deeply at micro grids as part of the overall  
11 system solution. And I've gotten quite interested in  
12 this topic as a result of being named to an advisory  
13 panel and to Sandia Labs in Albuquerque on the topic of  
14 micro grids and I think, hopefully, we can benefit  
15 from activities of all and certainly this agency in  
16 particular. With Jamie's assurance we'll be delving  
17 into that, I'll move approval of this Item.

18 COMMISSIONER DOUGLAS: Second.

19 CHAIRMAN WEISENMILLER: All in favor?

20 (Ayes.) This passes unanimously. Thanks,  
21 Jamie.

22 MR. PATTERSON: Thank you.

23 CHAIRMAN WEISENMILLER: Item 13. Lawrence  
24 Livermore National Laboratory. Possible approval of  
25 Contract 500-10-051 for \$1.75 million with the U.S.

1 Department of Energy, Lawrence Livermore National  
2 Laboratory, to apply high performance computing  
3 technology to improve the knowledge of the  
4 intermittent generation challenges from integrating  
5 high levels of renewable generation on the California  
6 electric grid. This research will use advanced  
7 optimization and control techniques to assess the  
8 system wide need for energy storage, automated demand  
9 response and other fast acting energy services to  
10 better balance the energy needs of the grid of the  
11 future. This is PIER electricity funding. Mike?

12 MR. GRAVELY: Good morning, Chairman and  
13 Commissioners. I'm Mike Gravelly from the Research and  
14 Development Division. This effort before you is a  
15 result of some previous research we did actually with  
16 KEMA and the report was published about a year ago  
17 indicating that as we look at more and more renewable  
18 uncertainly associated with renewables there could be  
19 substantial need for ancillary services and services  
20 to support the grid. That particular report  
21 identified as much as 3,000-5,000 megawatts in the  
22 2020 timeframe to meet that need. That could be  
23 storage that could be other services. One of the  
24 challenges, of course, is the computer modeling that  
25 was done was limited in its ability to only look at a

1 few days and a few (indiscernible) and so what we're  
2 trying to do here is see if the use of advanced high  
3 speed computing will allow us to get more fidelity  
4 into the understanding of it and also to look at  
5 alternatives of where energy storage can solve the  
6 need for many cases, a probably more expensive  
7 alternative, than other services like auto DR or other  
8 services so in addition to looking at the amount of  
9 ancillary services and advanced services we'll need,  
10 we'll be looking at energy storage as well as  
11 alternatives and this will give us, hopefully, some  
12 insight as we go forward to better understand the  
13 balancing of the grid and better understand the  
14 economics of the grid and hopefully give us to fix  
15 some of the most cost effective solutions. While this  
16 is a 36 month contract, we anticipate the majority of  
17 the work being done in the first 12-18 months so we  
18 can share that information, this information is also  
19 being fed into the CPUC's work with AB 2514 and other  
20 areas where energy storage is being considered.  
21 Lawrence Livermore has committed, in addition to the  
22 funding from PIER, a minimum of \$800,000 of internal  
23 leverage funds to help us get this job done  
24 effectively. We've also received letters of support,  
25 two of the ISOs. We're expecting to form a very

1 active working group here to ensure the research that  
2 we get and the results are acceptable by both  
3 utilities, the ISO and industry. And with that I'll  
4 be glad to answer any questions that you might have.

5 CHAIRMAN WEISENMILLER: Commissioners, any  
6 questions or comments?

7 COMMISSIONER BOYD: Mike, you're intimately  
8 familiar with the large amount of dialogue we've had  
9 of late with the CPUC and others with regard to the  
10 use of high-speed computers in aiding lots of the  
11 activities with regard to the operation of the  
12 California Electric System. I'm familiar with this  
13 project from the briefings you've provided in the past  
14 and I see this, as you say, this makes a pretty  
15 significant contribution to carrying out some of that  
16 activity. We've actually---Mike and the staff have  
17 been planning this for quite a long time as compared  
18 to the more recent interest by some in the  
19 capabilities of these high speed computers. I know  
20 that it's a very positive project and I support it and  
21 will--I move its approval. It was, of course,  
22 discussed at length in the R&D Committee over quite a  
23 period of time so I move approval.

24 COMMISSIONER DOUGLAS: Second.

25 CHAIRMAN WEISENMILLER: I was going to say

1 that this was a project that certainly, I was  
2 introduced to it by President Peevey who is a very  
3 strong supporter and proponent of this. Also, I've  
4 met with Bruce Foster and Brian Cherry who indicated  
5 very strong support of this. Obviously, it's  
6 important to me that it connect to the ISO and I guess  
7 the Stanford Project, that it be connected into stuff,  
8 and also it's important—I appreciate Livermore coming  
9 forward with leverage funds. Livermore does have a  
10 relatively high overhead rate and that's just the  
11 facts there and so they were pretty understanding to  
12 come up with some leverage funds to compensate—and  
13 obviously Livermore has done a lot of work overtime  
14 but this is, in some respects, a new area for them.  
15 So I think coming forward with the matching leverage  
16 funds was a key part of it. For those of us that  
17 visited their facilities, certainly they have an  
18 impressive collection of computers which could really  
19 change the way things go forward. I guess we're in  
20 some sort of race with the Chinese on whose got the  
21 best computers but anyway, I think the important thing  
22 for us is to see if that can be used to advance the  
23 state of knowledge here.

24           So the second seconded. So with that, any  
25 other comments?

1 COMMISSIONER PETERMAN: No.

2 CHAIRMAN WEISENMILLER: Move the motion,  
3 second. All in favor?

4 (Ayes.) This passed unanimously. Thanks,  
5 Mike.

6 MR. GRAVELY: Thank you, Commissioner.

7 CHAIRMAN WEISENMILLER: Item 14. Simbol,  
8 Inc. Possible approval of Agreement PIR-10-059 for a  
9 grant of \$380,000 to Simbol, Inc., to research and  
10 develop extraction technologies for strategic value-  
11 added minerals from geothermal brines. This a cost-  
12 share grant to supplement the recipient's American  
13 Recovery and Reinvestment Act award under the  
14 Department of Energy's Geothermal Technologies  
15 Program. This is PIER funding. The contact is John.

16 MR. HINGTGEN: Good morning, Commissioners.  
17 My name is John Hingtgen with the Research and  
18 Development Division with Simbol, Incorporated which  
19 is based in Pleasanton, California. It's a \$380,000  
20 cost-share grant to conduct research and development  
21 of extraction technologies for strategic value-added  
22 materials from geothermal fluids. This grant would  
23 provide funds toward a lithium extraction field pilot  
24 plant, one part of a larger project funded through DOE  
25 and company funds. The larger project will develop

1 technologies to transform lithium into materials  
2 useful in making batteries. The purpose of this  
3 project is to confirm the marketable lithium carbonate  
4 can be produced economically from salt and sea brines.  
5 The project will also develop technologies for  
6 extracting additional metals from the brines. This  
7 grant comes from PIER electric funds and supplements  
8 the recipients ARRA award of \$3 million in DOE funds  
9 under their geothermal technologies program. The  
10 company is providing \$6.3 million in company funding  
11 for a total budget of \$9.7 million. Alan Ward will  
12 talk about the CEQA aspects of this project.

13 MR. WARD: Good morning, Commissioners. My  
14 name is Alan Ward with the Commission's Legal Office.  
15 I want to make a few comments with the purpose of  
16 complying with the California Environmental Quality  
17 Act. The lead agency for this contract is the City of  
18 Brawley. In that capacity they have prepared a  
19 negative declaration. The conclusion of that  
20 declaration is that there is no substantial evidence,  
21 in light of the whole record before them, that this  
22 project will have any significant effect on the  
23 environment. In light of that measure, and upon  
24 reviewing the negative declaration and the other  
25 documents they prepared, we recommend approving this

1 Item in consideration of that.

2 CHAIRMAN WEISENMILLER: Commissioners, any  
3 questions or comments?

4 COMMISSIONER BOYD: Comment. This is a  
5 really intriguing proposal. If this proves beneficial  
6 and results in economic viable activity, it certainly  
7 would help with regard to, of course, battery  
8 production but it addresses an issue of who controls  
9 lithium in the world as a scarce, rare commodity. It  
10 certainly would level the playing field a little bit  
11 if we, as an economy, that's becoming more and more  
12 dependent upon lithium based batteries, both for  
13 electric vehicles, if not many of our high tech  
14 electronic approaches, but even of course for our  
15 research into energy storage. This would be quite a  
16 boon so it's a very small investment on our part, a  
17 much larger investment on the part of the federal  
18 government that could result in positive economic  
19 activities for the country. And positive economic  
20 value for California since this is in our real estate  
21 in the south of the state. I'm very supportive of the  
22 project and prepared to make a motion if there are no  
23 other comments and I'll move approval.

24 CHAIRMAN WEISENMILLER: I was going to make  
25 one comment which was when Richard Mullen left as the

1 first Chair of the Commission and set up a geothermal  
2 company, the first—they were in Imperial Valley, they  
3 found enormous lithium and they doubled the supply of  
4 lithium at that time. Hopefully, it can be converted  
5 into productive mineral as opposed to at that point it  
6 might have been seen more as a nuisance, frankly.

7 COMMISSIONER BOYD: Indeed.

8 COMMISSIONER DOUGLAS: I also found this to  
9 be a really interesting and thought provoking project.  
10 Like Commissioner Boyd, I'll watch with interest. I  
11 really hope that this works out as it could. So I'll  
12 second the motion.

13 CHAIRMAN WEISENMILLER: All in favor?

14 (Ayes.) This passes unanimously. Thank  
15 you.

16 MR. HINGTGEN: Thank you.

17 CHAIRMAN WEISENMILLER: Item 15. Portland  
18 State University. Possible approval of Amendment 1 to  
19 Contract 500-08-024 with Portland State University to  
20 add \$984,100 and a 24-month time extension to study  
21 how households use energy to enable policy models,  
22 technologies and better-informed choices by  
23 residential customers. This is PIER natural gas  
24 funding. Matt?

25 MR. COLDWELL: Good morning, Chairman and

1 Commissioners. My name is Matt Coldwell, Energy  
2 Commission staff. I'm here today to request approval  
3 of an amendment to an existing contract with Portland  
4 State University for their, what's called, the  
5 advanced residential energy behavioral analysis  
6 project. The amendment will add \$984,000 in 24  
7 months. The purpose of this project is to gain a  
8 clear insight into how California households actually  
9 consume natural gas. This is important because  
10 current natural gas forecasting models and efficiency  
11 policies and programs rely on that residential natural  
12 gas demand information. It does not account for  
13 occupant behavior and choice. So currently, there  
14 exists this knowledge gap in the behavior of household  
15 occupants in terms of their energy use. Because of  
16 this knowledge gap, energy efficiency programs and  
17 natural gas forecasting models use average of typical  
18 resident behavior in their calculations. The problem  
19 with using typical resident behavior in calculations  
20 is that the typical resident does not actually  
21 resident. It ignores that fact that there is  
22 considerable variation in energy use across the  
23 residential sector. So that goal of this project is  
24 to fill that knowledge gap by providing the data and  
25 information on residential energy consumption behavior

1 patterns. The data generated by this project will be  
2 used—will be integrated into and used to improve the  
3 accuracy of demand forecasting models and to provide  
4 for better informed energy efficiency program designs.  
5 The existing contract, as currently underway, has been  
6 limited to the study of highly aggregated monthly  
7 billing data and there's considerable uncertainty  
8 about the consumption by households at the end use  
9 level. This amendment will allow the use of more fine  
10 grain data that's now available to build upon the  
11 aggregated data. The new sources of data that the  
12 team will be using will be AMI data, they'll be using  
13 end use measurement data and this will allow them to  
14 do a more detailed behavioral data surveys of the  
15 sample.

16           The project team, the Portland State team,  
17 is a highly—is highly qualified in this field of  
18 research. The Principal Investigator, his name is  
19 Lawrence Lutzenhiser, is nationally renowned and is  
20 the leading expert on this area of research. The  
21 Portland State team is a subcontractor on two ARRA  
22 funded projects that are providing—the team is  
23 providing for each of those projects similar  
24 behavioral research. One of the projects is with  
25 Lawrence Berkeley National Laboratory and the other is

1 with Pacific Northwest National Laboratory. The data  
2 information used in those two—gained in those two  
3 projects will be leveraged by the Energy Commission  
4 funded project.

5           There's considerable stakeholder interest in  
6 this project. This project does have a clear  
7 California focus. The project has an engaged project  
8 advisory committee that consists of numerous  
9 California Stakeholders, all of whom will be able to  
10 utilize the results of this project. Those  
11 stakeholders include the Energy Commission, Southern  
12 California Edison, SEMPRA, PG&E, SMUD, California Air  
13 Resources Board, LBNL and we're currently identifying  
14 a representative from the California Public Utilities  
15 Commission.

16           We're excited to play the leading role in  
17 this project. This project was approved by the R&D  
18 Committee and I'm happy to answer any questions.

19           CHAIRMAN WEISENMILLER: Thank you.  
20 Commissioners, any questions or comments?

21           COMMISSIONER BOYD: If no other questions or  
22 comments, I'll thank Mr. Coldwell for that thorough  
23 and quite clarifying presentation of this subject and  
24 for pointing out the large number of stakeholder  
25 supporters as well as the existence of a broad based

1 stakeholder group which should point a lot of  
2 attention at the fact that this is deemed a very  
3 qualified university to help California with this  
4 question. With that, and as indicated as discussed in  
5 the R&D Committee, I'll move its approval.

6 COMMISSIONER PETERMAN: I'll also just echo  
7 Commissioner Boyd's compliments to Mr. Coldwell on his  
8 good presentation and information and just say that I  
9 think that this is a good use of AMI technology that  
10 we're deploying, being able to use this data to  
11 improve our forecasts and our policies. So I support  
12 this as well. Was there a motion?

13 COMMISSIONER BOYD: There was.

14 CHAIRMAN WEISENMILLER: I need a second.

15 COMMISSIONER PETERMAN: I'll second.

16 CHAIRMAN WEISENMILLER: Motion has been  
17 seconded. All those in favor?

18 (Ayes.) This passed unanimously.

19 MR. COLDWELL: Thank you.

20 CHAIRMAN WEISENMILLER: Item 25. University  
21 of California, Berkeley. Possible approval of  
22 Contract 500 10 047 for \$900,000 with the Regents of  
23 the University of California, on behalf of the  
24 Berkeley campus, to develop long-term energy scenarios  
25 for California using a geographical information system

1 framework and high temporal resolution to properly  
2 model intermittent sources of electricity. This is  
3 PIER electricity funding. Sarah and Commissioner  
4 Peterman?

5 COMMISSIONER PETERMAN: Ah, yes. I'll have  
6 to recuse myself from this Item as I'm currently  
7 finishing my dissertation at UC Berkeley and my  
8 advisor is the project manager on this. Thank you.

9 CHAIRMAN WEISENMILLER: Thank you.

10 MS. PITTIGLIO: Good morning, Commissioners.  
11 My name is Sarah Pittiglio. I'm with the PIER  
12 Environmental Group. The California Energy System  
13 will need to change drastically in the next four  
14 decades in order to reduce emissions by 80 percent by  
15 2050. In the proposed project, researchers used  
16 different energy mixes with different policy options,  
17 such as cap and trade, to simulate the energy system  
18 in 2050 for the Western United States. The models  
19 that the researchers will use will simulate the  
20 intermittent nature of renewable energy resource  
21 demands with high temporal and spatial resolution.  
22 The researchers will run the models with the goal of  
23 minimizing costs. This is the first phase and the  
24 second phase will be an investigation of the  
25 environmental impacts of these potential energy

1 scenarios in developing methods to track environmental  
2 change. The demand forecasts analysis division  
3 strongly endorses this project because it will provide  
4 useful information and analytical tools that their  
5 office would use in the future. I'm happy to answer  
6 any questions you may have.

7 CHAIRMAN WEISENMILLER: Thank you.

8 Commissioners, any questions or comments?

9 COMMISSIONER BOYD: Again, my comment here  
10 is that this was reviewed and approved by the R&D  
11 Committee as well as debated lengthily as to the  
12 benefit that we'll see to the State of California in  
13 operation of its electricity system and the fringe  
14 benefits, the spillover benefits, of course, for  
15 climate considerations and other considerations  
16 associated with environmental aspects of operating our  
17 energy system. So I think that this is going to give  
18 a significant payoff if indeed the scenarios are  
19 successful and the modeling is successful in terms of  
20 how we deal with the consequences of the future in  
21 operating the electricity system. Climate change a  
22 large beneficiary but it's certainly not the sole or  
23 only beneficiary of this kind of activity. As  
24 indicated, our demand analysis folks are really in  
25 need of good views of where the future might take us.

1 I think that this is going to be a very good project  
2 for those of you here on the Commission in the future.  
3 So I move approval.

4 COMMISSIONER DOUGLAS: Second.

5 CHAIRMAN WEISENMILLER: All those in favor?

6 (Ayes.) This passed unanimously.

7 MS. PITTIGLIO: Thank you.

8 CHAIRMAN WEISENMILLER: Item 26. Minutes.

9 Let's first deal with Item A. Possible approval of  
10 the March 30, 2011.

11 COMMISSIONER BOYD: Vote of approval.

12 COMMISSIONER PETERMAN: Second.

13 CHAIRMAN WEISENMILLER: All those in favor?

14 (Ayes.)

15 CHAIRMAN WEISENMILLER: So let's look at B.

16 Possible approval of the April 20, 2011 Business  
17 Meeting Minutes.

18 COMMISSIONER DOUGLAS: I'll abstain from

19 Item B.

20 COMMISSIONER BOYD: Move approval.

21 COMMISSIONER PETERMAN: I'll second.

22 CHAIRMAN WEISENMILLER: All those in favor?

23 (Ayes.)

24 Item C. Possible approval of the May 4,

25 2011 Business Meeting Minutes.

1 COMMISSIONER BOYD: I will abstain from this  
2 Item.

3 COMMISSIONER DOUGLAS: Move approval.

4 COMMISSIONER PETERMAN: I'll second.

5 CHAIRMAN WEISENMILLER: All those in favor?

6 (Ayes.)

7 Passed unanimously. Item D. Possible  
8 approval of the May 18, 2011, Business Meeting  
9 Minutes.

10 COMMISSIONER BOYD: Again, I will abstain.

11 COMMISSIONER PETERMAN: I'll move Item 26 D.

12 COMMISSIONER DOUGLAS: Second.

13 CHAIRMAN WEISENMILLER: All those in favor?

14 (Ayes.)

15 Passed unanimously. Item 27. Commission  
16 Committee Presentations and Discussion. Presentations  
17 or discussion by the Commissioners regarding Committee  
18 Oversight matters may be held.

19 COMMISSIONER BOYD: I will mention one Item,  
20 if I might. A week ago, we held in this room a  
21 meeting of the AB 118 Advisory Committee. As we are  
22 required to do, we have an Advisory Committee that  
23 helps give us guidance for the preparation of our  
24 annual investment plan for the AB 118 Program. It was  
25 Commissioner Peterman's first experience with this

1 group. I'm pleased to say that I'm presuming she had  
2 a good experience because it was a very good meeting  
3 and we've come a long way with these folks. We had a  
4 very spirited and helpful discussion of Items and lots  
5 of compliments to the staff for the work they had done  
6 in preparing the plan. And the work they did in  
7 anticipating where we need to go as well as work they  
8 had done in executing the previous plans since we have  
9 not found it necessary to bring to their attention any  
10 variations from the previously approved plans. In any  
11 event, we are working now to finalize the 2011  
12 Investment Plan and it will be brought before the  
13 Commission I believe at the end of next month which of  
14 course is a day of way, but the end of June in any  
15 event. Very good meeting and very well attended. And  
16 very beneficial. That's it.

17 COMMISSIONER DOUGLAS: On May 19, the  
18 Efficiency Committee held a meeting—held a workshop on  
19 the Energy Commission's proposed Efficiency Standards  
20 for battery chargers. It was a very well attended  
21 workshop and had a number of people on the phone as  
22 well from various parts of the country. It was a  
23 helpful, construction discussion of proposed standards  
24 and issues that some have with the standards. It was  
25 a good discussion of those issues. We also had

1 advocacy groups and we had NRDC there for example. So  
2 there was a diverse set of participants and a large  
3 number of people. It was a very helpful workshop.

4           COMMISSIONER PETERMAN: I'll just mention  
5 that on June 9<sup>th</sup> and 10<sup>th</sup> that I'll be attending the  
6 Western Interstate's Board Meeting and WIRAB Meeting  
7 in Colorado representing our state. It's a good  
8 opportunity to work with our colleagues in the West in  
9 developing smart transmission to increase the  
10 availability and flow of renewables to not only our  
11 state but other states as well. I'm looking forward  
12 as well to working with them on improving electricity  
13 system reliability.

14           CHAIRMAN WEISENMILLER: I was going to  
15 mention a couple of things. First, I attended the Cal  
16 ISO Board Meeting which was adopting—considering  
17 adoption of the Transmission Plan. This was the first  
18 Board Meeting with the new Board Members. That's  
19 Richard Mullen who was the first Chair here. In that  
20 context what I raised with them was the concern that  
21 they adopt the plan then so that we could continue on  
22 track with the ARRA Projects. The Plan included an  
23 element which was the LGIAs for the ARRA projects and  
24 so to meet the time constraints on the LGIAs for the  
25 financing of those projects to qualify for the cash

1 grants and the loan guarantees it's important that  
2 those who need to close financing, obviously  
3 transmission interconnection is a piece of that  
4 puzzle, and so I urged and ultimately the ISO Board  
5 supported 4-0 the adoption of the plan so that those  
6 projects could continue on to potentially achieve  
7 financing and construction and achieve the jobs and  
8 greenhouse gas savings that we all worked so hard for.  
9 So it's a good opportunity for them to continue the  
10 ISO partnership with us.

11 I also attended last week, Yakout Mansour's  
12 last event that they had to celebrate his tenure there  
13 and to wish him well.

14 Finally, I was going to mention that I  
15 attended the budget hearing, the senate budget hearing  
16 this last week, which was not nearly as pleasant an  
17 event. It was—Both the LAO and finance agreed that we  
18 needed the money but that was withheld Senator  
19 Simitian was clear that he had issues with the Agency  
20 and wanted to make sure that we'd tried to address  
21 those issues. Afterwards, I met with Senator Padilla  
22 and the Governor's Office and Secretary Laird and, at  
23 this point, working with Rob Ogelsby and Robin try to  
24 achieve a reset of our relationships with legislature.  
25 I think that those of us who were here last year knew

1 that the relationship between the last administration  
2 and legislature was relatively bad. I think that we  
3 got into certain habits or they certainly got into  
4 perceptions of us in that context and I think that the  
5 reset will hopefully address those concerns. I think  
6 that it's important that we reach out to the  
7 legislature and that we listen to them. I think that  
8 there's a feeling that while we do many good things  
9 here, that sometimes staff and others can be  
10 relatively tone-deaf. I think it's important that we  
11 reach out and listen going forward and so certainly  
12 look forward to working with all of the Commissioners  
13 and all of the staff as part of this reset. I think  
14 it's important for this agency to do that between now  
15 and the end of the year.

16 CHAIRMAN WEISENMILLER: So with that, Chief  
17 Counsel's Report.

18 MR. LEVY: Good morning, Commissioners. Two  
19 things. First, I'd like to request a closed session  
20 to discuss facts and circumstances that constitute a  
21 significant exposure to litigation against the  
22 Commission. And also with the Commission's  
23 indulgence, I'd like to introduce our three summer  
24 interns to you. We have three law students. Please  
25 step forward folks. As always we seek out and obtain

1 the best and brightest everywhere and as they're  
2 walking forward I can tell you that once again my  
3 staff is universally delighted to have these  
4 individuals. And are equally or more delighted to not  
5 have to compete against them in law school or  
6 elsewhere. All three of them have just finished their  
7 second year of law school. The first is Sarah  
8 Davidson.

9           Ms. Davidson is attending Hastings College  
10 of Law. She earned a Bachelor's Degree, Magna Cum  
11 Laude in English and American Literature with a minor  
12 in Arabic from New York University. Ms. Davidson  
13 comes to us with practical experience, including  
14 service as a law clerk for the Sonoma County Council's  
15 Office, as a paralegal for the law firm of Fragomen,  
16 Del Rey, Bernsen & Loewy in San Diego and New York and  
17 an administrative assistant and court advocate for  
18 juveniles in the Dome Project's Juveniles Justice  
19 Program in New York. Ms. Davidson has a working  
20 knowledge of Arabic, Czech and conversational French.

21           Jie Lei is attending the University of  
22 Michigan Law School. She earned a Master's Degree in  
23 International Policy Studies from Stanford. Prior to  
24 that, earned a Bachelor's Degree in International  
25 Relations and Asian Studies Cum Laude from Mary

1 Baldwin College in Virginia. Ms. Lei also holds a  
2 certificate in advanced Chinese language with highest  
3 honors from Tsinghua University in Beijing, China. Her  
4 practical experience includes service as a legal  
5 intern at the Office of Washtenaw County Defender's  
6 Office in Ann Arbor, Michigan, as a research assistant  
7 to a member of the Scottish Parliament in Edinburgh,  
8 Scotland and as owner/manager of an award winning  
9 restaurant in Seattle, Washington specializing in  
10 northwestern Chinese cuisine. Of course, we're going  
11 to have a Chinese cuisine part sometime this summer  
12 which she just learned about this very second.

13           Also, Nicholas Warden. Mr. Warden is  
14 attending UC Davis. He has a Master's Degree with  
15 Distinction from Oxford University Center for the  
16 Environment where we studied Urban Water Management in  
17 Southern Africa and Global Oil Development. Prior to  
18 that, Mr. Warden obtained a dual Bachelor's Degree  
19 from the University of Southern California in  
20 Political Science and German, both magna cum laude,  
21 with a minor in philosophy. He's a legal intern with  
22 the Office of the California Attorney General Public  
23 Rights Division, a Research Fellow with the Center for  
24 Energy Efficiency and Renewable Technologies, a  
25 Research Assistant in Market Analysis for the Deutsche

1 Energie Agentur, the German energy agency in Berlin  
2 and as a law clerk for the Los Angeles law firm of  
3 Gibeaut, Mahan & Briscoe. I'd like to ask you to  
4 welcome the three of them to the Commission. I trust  
5 you'll be seeing them over the summer.

6 CHAIRMAN WEISENMILLER: Thank you.  
7 Certainly welcome your participation in the  
8 Commission's activities this summer and hopefully you  
9 might think of staying.

10 COMMISSIONER BOYD: I just congratulate Mr.  
11 Levy for his very successful recruitment process.  
12 Obviously, three very impressive individuals you have  
13 on your staff. I'm already receiving the services of  
14 one, venturing into of all things the nuclear area.  
15 In any event, welcome to all of you. I do look  
16 forward to that Chinese food experiment as one who's  
17 visited China quite a bit, I'd like to experience  
18 this. In any event, welcome.

19 COMMISSIONER DOUGLAS: Welcome aboard. I've  
20 seen over my time that the Commission legal interns do  
21 very important work on very critical issues and so we  
22 will no doubt be seeing all three of you and you will  
23 no doubt be called upon to do some pretty interested  
24 work. Welcome.

25 COMMISSIONER PETERMAN: Welcome. And,

1 again, I'm also impressed with the array of languages  
2 that you all speak. Hoping that I can pick up a  
3 couple of words of Czech, Arabic, or Chinese or German  
4 during the summer while you're here and learn  
5 something myself.

6 MR. LEVY: And the accolades for our intern  
7 recruitment, I'm happy to share with a broad team of  
8 lawyers at the Commission including supervised by  
9 Chief Counsel Renee Webster-Hawkins, Michael Doughton,  
10 Pippin Brehler, Robin Mayer and Jen Martin Gallardo.  
11 They're the folks who were doing the extensive  
12 outreach and recruitment and supervision of the  
13 interns. And they've done a marvelous job.

14 CHAIRMAN WEISENMILLER: Thank you.  
15 Executive Director's Report?

16 MR. OGELSBY: I have nothing to add.

17 CHAIRMAN WEISENMILLER: Public Advisor's  
18 Report?

19 MS. JENNINGS: I have nothing to report.

20 CHAIRMAN WEISENMILLER: Public comment?

21 This meeting will now adjourn to the executive  
22 session.

23 (Whereupon, at 11:38 a.m., the business meeting was  
24 adjourned.)

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