

COMMISSIONERS PRESENT

Karen Douglas, Chair
James D. Boyd, Vice Chair
Jeffrey D. Byron
Anthony Eggert
Robert Weisenmiller

Staff Present:

Melissa Jones, Executive Director
Jonathan Blee, Chief Counsel
Jennifer Jennings, Public Advisor
Harriet Kallemeyn, Secretariat

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P R O C E E D I N G S

JANUARY 27, 2009

10:05 a.m.

CHAIRPERSON DOUGLAS: Good morning. Welcome to the California Energy Commission Business Meeting of January 27th, 2010.

Please join me in the Pledge.

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

CHAIRPERSON DOUGLAS: Welcome again to the California Energy Commission Business Meeting. If you have -- I think I meant to make an announcement later in the day that I will make, actually, right now.

We are very pleased to have a new Public Advisor appointed last week. Please stand up, Jennifer. Jennifer Jennings has been appointed our Public Advisor. She comes to us with a very strong background both in state government and in the advocacy community, and as an attorney. Since 2004, she served as a Panel Attorney for the California Parole Advocacy Program. She was General Counsel for the Planning and Conservation League from 1988 to 1994. Previously, she was also Staff Counsel for the California Air Resources Board from 1985 to 1988, State Coastal Conservancy from 1983 to 1985, and the Department of Water Resources from 1981 to 1985. So she comes to us with a wealth of information, a tremendous

1 background in substantive areas of environmental law and
2 policy, and a tremendous commitment to serving the public. So
3 welcome, Jennifer.

4 MS. JENNINGS: Thank you.

5 CHAIRPERSON DOUGLAS: And please do indicate to
6 Jennifer if you would like to speak. We have a lot of blue
7 cards and she will help bring it forward and make sure if
8 there is a specific item on the agenda that you would like to
9 address, that you indicate that item on the blue card.

10 COMMISSIONER BYRON: Madam Chair, if I may.
11 Concurrent with the arrival of our new Public Advocate, I am
12 very glad that she has joined us, we are also unfortunately
13 saying goodbye to one of her staff members, and that is Loreen
14 McMahon, who is leaving to go to the Public Utilities
15 Commission. It is unfortunate that she sees that as an
16 advancement opportunity, but we are very glad to have had you
17 here, and wish you the best of luck. I think this kind of
18 cross-pollenization amongst agencies and the government is
19 very helpful and we look forward to maintaining a relationship
20 with you, Ms. McMahon.

21 MS. MCMAHON: Thank you very much.

22 CHAIRPERSON DOUGLAS: Very good. With that, we will
23 begin with Item 1. Consent Calendar.

24 VICE CHAIR BOYD: I will move Consent.

25 COMMISSIONER BYRON: Second.

1 CHAIRPERSON DOUGLAS: All in favor?

2 (Ayes.)

3 The Consent Calendar is approved.

4 MS. JONES: I would like to introduce the next
5 several items. They are ARRA low interest loans, and I just
6 want to let you know that today we have a proposed funding for
7 \$7.9 million worth of projects, and if we add that to the
8 already approved ARRA low interest loans, we have now
9 allocated \$17.9 million of these ARRA funds.

10 CHAIRPERSON DOUGLAS: Thank you, Ms. Jones.
11 Beginning with Item 2, City of Ventura, Mr. Wang.

12 MR. EHYAI: Good morning, Commissioners. My name is
13 Amir Ehyai. I work with Joseph Wang in the Special Projects
14 Office. Joseph was unable to attend this morning's meeting,
15 so I am here to present his item on his behalf.

16 The City of Ventura is requesting the loan for
17 \$500,000 to upgrade the city's lighting and HVAC systems. The
18 loan will allow the city to install a new 220 ton chiller in a
19 City Hall upgrade interior and exterior lighting and install a
20 server control for the city's data center. The existing old
21 300 ton chiller will be replaced with a new variable speed
22 drive chiller. The existing T12 lights will be replaced with
23 T8 lights and electronic ballast. Many of the exterior high
24 pressure sodium lights will be replaced with induction lights
25 and a server control system will be installed to reduce the

1 data center's energy use. These projects are expected to save
2 the city \$75,106 in annual energy costs, and have a combined
3 simple payback of 6.6 years based on the loan amount. These
4 energy efficiency measures are also expected to reduce
5 greenhouse gas emissions by 200 tons annually. The total
6 project cost for the recommended measures is estimated to be
7 \$1,135,000. In addition to the Energy Commission loan of
8 \$500,000, the City will use \$582,000 of their federal stimulus
9 funds and \$53,000 of utility rebate incentives to complete the
10 projects. Energy Commission staff has determined that the
11 projects are technically feasible and meet the requirements of
12 our ARRA loan funded program, and recommends this loan be
13 approved. Thank you.

14 CHAIRPERSON DOUGLAS: Thank you. And so, to clarify
15 or to reiterate, the city is using its funds that it got
16 through the Block Grant Program and leveraging that with the
17 ECAA loan -- or, rather, the ARRA loan.

18 MR. EHYAI: Absolutely. The DOE's federal block
19 grant for large jurisdictions.

20 CHAIRPERSON DOUGLAS: Well, that is great and that
21 is exactly the sort of thing that we hope to see. Questions
22 or comments?

23 COMMISSIONER EGGERT: I have a question.

24 CHAIRPERSON DOUGLAS: Please.

25 COMMISSIONER EGGERT: I guess this is maybe not

1 necessarily specific to this project, but, in general, these
2 types of projects, do we do an evaluation of the actual
3 performance as built? Is there sort of any report back on
4 actual performance that might be used for future development
5 of programs or policies?

6 MR. EHYAI: Yes. After the loan project is
7 completed, for a period of three years after the project, we
8 received annual energy use reports from the jurisdictions to
9 document their energy use for those three years, and we
10 compare that to baseline, to verify whether or not these
11 measures have been successful.

12 COMMISSIONER EGGERT: And that information is
13 available or made available to CEC or beyond?

14 MR. EHYAI: It is made available to the CEC. We
15 keep it in our files and in our database. And beyond that, I
16 am not certain. It could be made available upon request.

17 COMMISSIONER EGGERT: Okay, thanks.

18 CHAIRPERSON DOUGLAS: Is there a motion?

19 COMMISSIONER BYRON: I move approval of Item 2.

20 COMMISSIONER EGGERT: Second.

21 CHAIRPERSON DOUGLAS: All in favor?

22 (Ayes.)

23 Item 2 is approved.

24 MR. EHYAI: Thank you.

25 CHAIRPERSON DOUGLAS: Item 3. City of Monterey.

1 Possible approval of a \$1,551,918 loan to the City of Monterey
2 to upgrade tunnel, bike path, and street lights with induction
3 lighting. Ms. Castillo.

4 MS. CASTILLO: Good morning, Commissioners. My name
5 is Joji Castillo and I am with the Fuels and Transportation
6 Division's Special Projects Office. This is a loan request
7 from the City of Monterey for \$1,551,918. This loan would
8 allow the City of Monterey to replace over 2,100 of the city's
9 tunnel lights, coastal trail lights, and street lights with
10 induction lighting. This loan will be funded with ARRA funds
11 at the interest rate of 1 percent. These projects will save
12 the city over 930,000 kilowatt hours, or \$121,039 per year.
13 The total project cost is over \$1.59 million with the city
14 potentially receiving utility rebates of over \$46,500. The
15 net cost to the city would be the loan amount requested which
16 is \$1,551,918. And based on this loan amount, pay back is
17 estimated at 12.8 years. Annual greenhouse gasses reduced per
18 year would be almost 642,000 pounds of carbon dioxide.

19 The City of Monterey has complied with all NEPA,
20 CEQA, and HPA requirements and has been approved by the ARRA
21 Ad Hoc Committee. I am seeking your approval for this loan
22 request. Thank you.

23 COMMISSIONER BYRON: Ms. Castillo, you may or may
24 not be the right person to ask this question, it applies to
25 really a number of the projects, the previous one had a

1 payback period of about seven years -- six and a half years.
2 This one has a longer period and, in fact, a number of them
3 are over 10 years. Is there a minimum required payback
4 period?

5 MS. CASTILLO: For the ARRA 1 percents?

6 COMMISSIONER BYRON: Or, I should say a maximum
7 payback period that is approved by the --

8 MS. CASTILLO: For the ARRA 1 percent loan program,
9 it would be 13 years payback.

10 COMMISSIONER BYRON: Thank you very much.

11 COMMISSIONER EGGERT: And just a question regarding
12 both, I guess, the savings and the payback. Does that include
13 any estimate of mode shift from vehicle travel to bicycle
14 travel, given that this includes --

15 MS. CASTILLO: This only includes material costs and
16 some labor.

17 COMMISSIONER EGGERT: Oh, in terms of the estimated
18 -- again, I am looking here -- this is also including an
19 upgrade to the bicycle facilities?

20 MS. CASTILLO: The coastal trail, yes.

21 COMMISSIONER EGGERT: Okay and does the estimate of
22 benefits include any evaluation of the potential to shift from
23 vehicle travel to the bicycle travel?

24 MS. CASTILLO: I am not really sure if the city has
25 done that evaluation, but in terms of our loan program, that

1 was not something I considered. It is only really the
2 financial aspect.

3 COMMISSIONER EGGERT: Thank you.

4 VICE CHAIR BOYD: It might be more of a recreation
5 value adder, as well.

6 MS. JONES: Well, I think just to clarify, it is an
7 existing bike path and they are replacing the lighting on it.
8 So probably they had to do the assessment of the mode shift as
9 part of approving the bike path prior to coming here.

10 VICE CHAIR BOYD: I move approval.

11 COMMISSIONER BYRON: Second.

12 CHAIRPERSON DOUGLAS: All in favor?

13 (Ayes.)

14 This item is approved.

15 Item 4. City of Dinuba. Possible approval of a
16 \$611,334 loan to the City of Dinuba to implement energy
17 efficiency measures at the city's wastewater reclamation
18 facility. Ms. Godfrey.

19 MS. GODFREY: Hello. I am Deborah Godfrey with the
20 Fuels and Transportation Division's Special Projects Office.
21 I am covering for Shahid Chaudhry who is unable to be here
22 today.

23 Shahid worked with the City of Dinuba on a Phase 1
24 at their wastewater reclamation facility. It will include
25 changes in their controls, VFDs on their pumps, new pumps and

1 motors, and efficient lighting and controls and
2 recommissioning of the facility. It will save the city
3 approximately \$88,643 annually for the equivalent of 434,000
4 pounds of carbon dioxide equivalent GHGs. The city has asked
5 for the 1 percent ARRA loans. They are using their ARRA
6 funding block grant money for other efficiency improvements in
7 their city. There is no leveraging the funds on this project
8 and they have met all the requirements and we are recommending
9 approval.

10 COMMISSIONER BYRON: Madam Chair, I move approval of
11 Item 4.

12 COMMISSIONER EGGERT: Second.

13 CHAIRPERSON DOUGLAS: All in favor?

14 (Ayes.)

15 Item 4 is approved. Thank you.

16 Item 5. Portola Valley School District. Possible
17 approval of a \$1,091,657 loan to Portola Valley School
18 District to install a 280 kilowatt photovoltaic system. Ms.
19 Fisher.

20 MS. FISHER: Good morning, Commissioners. My name
21 is Anne Fisher and I am with the Special Projects Office. The
22 Special Projects Office has worked with the Portola Valley
23 School District's Assistant Superintendent to compile a loan
24 package to help fund a 280 kilowatt photovoltaic system. The
25 District has previously worked with the Green Resource Network

1 to identify energy efficiency and water retrofits and
2 renewable energy production was the next step in energy
3 savings. The photovoltaic system will provide 68 percent of
4 the school's energy usage and is estimated to save 342,600
5 pounds of greenhouse gas emissions and \$83,973 in energy costs
6 annually. It will cost \$2.275 million and will be paid for by
7 the 1 percent ARRA loan, a Qualified Schools Construction
8 Bond, and a California Solar Initiative Rebate. The ARRA loan
9 amount requested is \$1,091,657. The loan payback period based
10 on the savings is 13 years. Thank you.

11 CHAIRPERSON DOUGLAS: Thank you. Are there
12 questions or comments?

13 COMMISSIONER BYRON: None -- I suppose a comment.
14 It is just wonderful, you know, when I was in school we were
15 doing duck and cover drills and now they are putting
16 photovoltaics on the roof. It is really wonderful. I would
17 move the item.

18 VICE CHAIR BOYD: Second.

19 CHAIRPERSON DOUGLAS: All in favor?

20 (Ayes.)

21 That item is approved.

22 Item 6. County of Alameda. Possible approval of a
23 \$1,177,891 loan to the County of Alameda to install a 250
24 kilowatt photovoltaic system. Mr. Suleiman.

25 MR. SULEIMAN: Good morning, everyone. My name is

1 Adel Suleiman. I am with the Special Projects Office. The
2 County of Alameda has implemented numerous energy efficiency
3 and renewable projects for the past 10 years. This \$1,177,891
4 loan request before you today will help the county install 250
5 kWh mounted photovoltaic system over the new Castro Valley
6 Library. This new library opened for the public just October
7 and its energy design exceeded the Energy Commission's
8 Building Standards by 15 percent. This loan request will make
9 this project possible and help further reduce the County's
10 energy cost and improve its renewable portfolio. The project
11 is estimated to generate approximately 412,000 kWh per year
12 and reduce the County's energy cost by over \$90,000 annually,
13 and has a simple payback of 13 years based on the loan amount.
14 The funding for this project, the total cost of this project
15 is estimated at \$2 million, the CEC loan will provide
16 \$1,177,000 from the American Recovery and Reinvestment Act,
17 the ARRA funds, PG&E, the serving electric utility, will
18 provide \$520,000 in cash incentives paid out over five years,
19 and the balance of the project will come from the County's own
20 General Funds. This project was previously approved by the
21 ARRA Ad Hoc Committee and meets all the requirements under the
22 Energy Commission Loan Program, and I am seeking your approval
23 on this item.

24 CHAIRPERSON DOUGLAS: Thank you.

25 COMMISSIONER EGGERT: Question -- you said that the

1 facility exceeded code by 15 percent. Is that correct?

2 MR. SULEIMAN: Yes.

3 COMMISSIONER EGGERT: Is that a requirement of the
4 program, or is that just something that they have done?

5 MR. SULEIMAN: That is the requirement for the
6 program, correct, in doing construction.

7 COMMISSIONER EGGERT: And do we factor in the
8 savings that are associated with that exceedance of code in
9 the benefit assessment, as well?

10 MR. SULEIMAN: The savings for this loan only
11 pertain to the photovoltaic system.

12 COMMISSIONER EGGERT: Okay. Motion to approve.

13 CHAIRPERSON DOUGLAS: All right, we have a motion.
14 Do we have a second?

15 VICE CHAIR BOYD: Second.

16 CHAIRPERSON DOUGLAS: All in favor?

17 (Ayes.)

18 The item is approved.

19 Item 7. City of Fairfield. Possible approval of a
20 \$3 million loan to the City of Fairfield to upgrade street
21 lighting fixtures. Mr. Suleiman.

22 MR. SULEIMAN: Thank you, Commissioner. My name is
23 Adel Suleiman with the Special Projects Office. The City of
24 Fairfield is requesting a \$3 million loan to help the city
25 retrofit their existing 8,000 street light systems and

1 controls. This lighting project involves the retrofit of the
2 inefficient high pressure sodium lamps with more energy
3 efficient, long lasting, and lower wattage induction lamps.
4 This loan request will make this project possible and help the
5 City of Fairfield to reduce their energy and maintenance costs
6 and improve system reliability due to the long life of the
7 induction lamps. Once completed, this project is estimated to
8 save the city almost 2 million kWh per year and reduce their
9 energy costs by \$241,000 annually and has a simple payback of
10 12.5 years based on the loan amount. The funding sources for
11 this project is the cost, the total cost is \$3.6 million, the
12 CEC would provide \$3 million from the American Recovery and
13 Reinvestment Act ARRA funds, and PG&E would contribute
14 \$100,000 in cash incentives, derived after the project is
15 completed. And the city is using also the federal stimulus
16 money, approximately half a million dollars on that project,
17 as well. This project meets all of the requirements under the
18 Energy Commission's loan program, as well as the ARRA funds,
19 and I am seeking your approval on this item.

20 COMMISSIONER EGGERT: One additional question. I
21 was able to tour the California Lighting Center which is down
22 the road in Davis, it is researching all these new lighting
23 technologies. And I believe we provide funding, I think,
24 perhaps through the PIER Program. Is there a connection
25 between the technologies that are coming out of that effort

1 and the projects that are going to be funded through these
2 types of grants, either technical assistance, or information?

3 MR. SULEIMAN: Absolutely. I mean, the cities, they
4 rely on the California Lighting Technology Center to provide a
5 lot of information on the different technologies, and they
6 decide, based on that information, they decide which
7 technology to use.

8 COMMISSIONER EGGERT: Okay, excellent. Nice
9 crossover there.

10 VICE CHAIR BOYD: I move approval.

11 COMMISSIONER WEISENMILLER: Second.

12 CHAIRPERSON DOUGLAS: All in favor?

13 (Ayes.)

14 That item is approved. Thank you.

15 Item 8. County of Alameda. Possible approval of a
16 \$285,000 loan to the County of Alameda to upgrade interior
17 lighting systems at the Santa Rita Jail in Dublin. Mr.
18 Suleiman.

19 MR. SULEIMAN: Thank you, Commissioner. This
20 \$285,000 loan request for the County of Alameda will help the
21 County upgrade their lighting system and controls at a portion
22 of the Santa Rita Jail in Dublin. This lighting upgrade
23 involves the removal of an inefficient metal halide lighting
24 system and replacing it with a more efficient long life and
25 lower wattage induction lamp system. This loan request will

1 make this project possible and help further reduce the
2 County's energy and maintenance costs and improve system
3 reliability due to the long life of induction lamps. The
4 project is estimated to save the county approximately 1.6
5 million kWh per year and reduce the County's energy costs by
6 approximately \$196,000 annually, and has a simple payback of
7 1.5 years based on the loan amount. The total project cost is
8 estimated at \$315,000. The CEC loan will provide \$285,000
9 from the ECAA funds, the Energy Conservation Assistance Act,
10 and the balance of the project will be provided by PG&E,
11 \$30,000 in cash incentives. This project meets all the
12 requirements under the Energy Commission loan program and I am
13 seeking your approval on this item.

14 VICE CHAIR BOYD: I would just comment that, in the
15 years I have been here, it seems to me we have spent a fair
16 amount of money on the Santa Rita Jail. Alameda County and
17 the jail have been quite busy with upgrades, and they were one
18 of the big early users, if I am not mistaken, of the
19 photovoltaic system that this agency, I think, helped them
20 with. So I am pleased to see them continuing their active
21 investigation of more efficiency.

22 MS. JONES: We consider them one of our best
23 customers.

24 VICE CHAIR BOYD: I will not get into the "we spend
25 more on prisons than education" comment here. Anyway, if

1 there are no other questions, I will move approval.

2 COMMISSIONER BYRON: Second.

3 CHAIRPERSON DOUGLAS: All in favor?

4 (Ayes.)

5 That item is approved.

6 Item 9. County of Sacramento. Possible approval of
7 a \$1,247,290 loan to the County of Sacramento for energy
8 efficiency upgrades at the Rio Cosumnes Correctional Center.
9 Mr. -- help me with your last name.

10 MR. EHYAI: Ehyai.

11 CHAIRPERSON DOUGLAS: Ehyai.

12 MR. EHYAI: Good morning, Commissioners. My name is
13 Amir Ehyai and I am with the Fuels and Transportation
14 Division's Special Projects Office. The County of Sacramento
15 is requesting an Energy Commission loan in the amount of
16 \$1,247,290 to upgrade lighting, mechanical equipment, and
17 control systems at the Rio Cosumnes Correctional Center.
18 Built in 1990, this facility operates year round, around the
19 clock. Much of the HVAC equipment has reached the end of its
20 expected service life and the current energy management system
21 is only partially functional and essentially obsolete. As
22 such, the county will be undertaking a facility-wide
23 renovation. The County will use the loan funds to upgrade
24 over 4,000 interior and exterior lighting fixtures, install a
25 new chiller equipped with variable frequency drive, and

1 replace the existing energy management system with a new
2 direct digital control system. The total project cost is
3 estimated to be approximately \$1,572,000. The County will
4 leverage the requested loan amount with over \$280,000 of its
5 Federal Stimulus Funds, and nearly \$38,000 in utility rebate
6 incentives. Staff has determined that the loan request is
7 technically justified and meets eligibility requirements for a
8 loan under the ECAA Program. This item has been previously
9 approved by the Efficiency Committee, and I am here today
10 requesting your approval.

11 CHAIRPERSON DOUGLAS: Thank you. Are there any
12 questions about this item?

13 COMMISSIONER BYRON: None. Another prison,
14 Commissioner Boyd.

15 VICE CHAIR BOYD: As the only person up here who
16 lives in Sacramento County, I will move approval of this item.

17 COMMISSIONER BYRON: I will second it.

18 CHAIRPERSON DOUGLAS: All in favor?

19 (Ayes.)

20 This item is approved.

21 Item 10. County of Nevada. Possible approval of a
22 \$1,486,867 loan to the County of Nevada for replacement of
23 HVAC systems. Ms. Khalsa.

24 MS. KHALSA: My name is Akasha Khalsa. I am with
25 the Special Projects Office of the Fuels and Transportation

1 Division. This is a loan request from the County of Nevada
2 for a 3 percent Energy Conservation Assistance Account Program
3 loan for replacement of HVAC systems, HVAC controls, boilers,
4 and lighting retrofits in the County Administration Center and
5 the County Correctional Facility in Nevada City, California.
6 The total project installation is projected to cost
7 \$1,883,286, of which \$1,486,867 will be financed with an
8 Energy Commission loan at 3 percent interest. This project
9 will reduce the County's electric energy use by an estimated
10 1,036 kWh hours, about 21,000 therms of natural gas will be
11 conserved with the more efficient boilers. This upgrade will
12 save the County approximately \$171,000 annually in energy
13 costs. The carbon dioxide reduction is estimated at 715,000
14 pounds per year. The utility will offer a rebate estimated at
15 \$19,000. The HVAC rebates will be closer to \$30,000. The
16 rest of the funds will be financed by almost all of their
17 Federal Stimulus funds and the small county EECBG grant of
18 \$373,291. The simple payback is 7.5 years based on the loan
19 amount.

20 CHAIRPERSON DOUGLAS: Thank you. Do we have
21 questions?

22 COMMISSIONER BYRON: Madam Chair, I will move the
23 item.

24 COMMISSIONER WEISENMILLER: Second.

25 CHAIRPERSON DOUGLAS: All in favor?

1 (Ayes.)

2 That item is approved. Thank you very much.

3 COMMISSIONER BYRON: Maybe one day we will be making
4 loans to prisons in Mexico.

5 VICE CHAIR BOYD: I am not going there.

6 CHAIRPERSON DOUGLAS: Item 11.

7 MS. HEINZ: Good morning, Commissioners. My name is
8 Jane Heinz and what is being handed out to you right now is
9 the correct item 11 description with the current increase in
10 the loan amount and the resulting memo.

11 CHAIRPERSON DOUGLAS: Ms. Heinz, could you -- for
12 the benefit of the Commission -- describe the differences
13 between what you have handed us and what was in our packets?

14 MS. HEINZ: Yes. On the cover of the agenda, the
15 Item 11 is correct. Within your packet, under the background
16 information on Item 11, that original memo was from -- that
17 draft was from last year. The current memo apparently did not
18 get into the package for today and this is the signed off copy
19 that went through committee in October, etc.

20 COMMISSIONER BYRON: So what we received in our
21 earlier business package is completely incorrect?

22 MS. HEINZ: No. The only thing that is incorrect is
23 the loan increase amount.

24 COMMISSIONER BYRON: Okay, thank you.

25 CHAIRPERSON DOUGLAS: Thank you. That was actually

1 my question. So the new loan increase amount -- or the
2 correct loan increase amount is how much?

3 MS. HEINZ: Is \$762,564.

4 CHAIRPERSON DOUGLAS: Then why don't you please just
5 go ahead and present the item, then.

6 MS. HEINZ: Okay. What we are asking for is your
7 approval on three things; one is a term extension, one is a
8 interest rate reduction to the current ECAA rate of 3 percent,
9 and the third item is the loan increase amount by about
10 \$111,000 due to PG&E rate increases from the calculation date
11 and the original approval date of the loan of October '08
12 until October '09. And that rate increase was 7.55 percent.
13 The first area of the term increase was -- the reason for that
14 was that, right after the loan was signed by the Applicant in
15 March of last year, the Governor froze Prop. 1-d modernization
16 funds. This effort on the part of Loomis School District was
17 to have an energy efficiency compliment to some of the
18 modernization efforts that had to take place like dropping
19 ceilings to put in t-bar ceilings, some ducting work, etc. So
20 the Prop. 1-d funds got frozen and they had to put the project
21 on hold. They were looking to redirect other funds, etc. and
22 so they were not able to do that by the time summer rolled
23 around when they would be doing the construction efforts. So
24 they requested a term extension until October 1st of 2010.
25 In terms of the prop. 1-d funding, they put up 40 percent,

1 they would make a request, there is an allocation and they put
2 up 40 percent of the money, a little over \$800,000, and they
3 are still committed to that funding. And should Prop. 1-d
4 funds not materialize -- they are supposed to be -- but if
5 they do not hit their bank account, they are willing to
6 redirect funding in the district to cover that other 60
7 percent of the cost. The interest rate was agreed to at 3.95
8 percent last year. The current ECAA rate was 3 percent, so we
9 are asking for that reduction, and then the loan amount
10 increase due to a PG&E rate increase of 7.55 percent. They
11 are on propane, we backed out the propane costs in the
12 calculation, and the resulting increase from the original
13 \$651,370 to \$762,564 is that difference. In terms of the
14 annual energy use savings, the district will be saving 398,813
15 kWh hours, 3,593 gallons of propane, or 359.3 million Btu, and
16 the CO₂ emission reduction will be 182 tons. The rebates from
17 PG&E will be \$45,949 and the payback period is 11 years. If
18 you have any questions, I would be happy to address them.

19 VICE CHAIR BOYD: Observations and questions. I
20 note the annual cost savings amount has gone up in the new
21 document we have, \$2,000, the total project cost has gone up
22 some -- roughly \$62,000. And what was before noted as a
23 miscellaneous item is now noted as vending machine controlled,
24 thus peaking my curiosity as to exactly what that means. And
25 I am sure other people might be -- what is happening to

1 vending machines that it gets rolled into this?

2 MS. HEINZ: Apparently, you know, this is from the
3 Servidyne's audit and there is a control mechanism for the
4 vending machine to turn on and off, you know, at certain
5 periods of time, and not be running over the weekend and for
6 12 hours during non-peak hours.

7 VICE CHAIR BOYD: So it has nothing to do with
8 calories served per student?

9 MS. HEINZ: No -- or buying them new vending
10 machines.

11 VICE CHAIR BOYD: Amount of sugar. All right, thank
12 you.

13 CHAIRPERSON DOUGLAS: Any other questions or
14 comments?

15 COMMISSIONER BYRON: Madam Chair, after having a
16 brief opportunity to review this, it all looks in order. I
17 agree to the changes and I would move the item.

18 COMMISSIONER WEISENMILLER: Second.

19 CHAIRPERSON DOUGLAS: We have a motion and a second.
20 All in favor?

21 (Ayes.)

22 The item is approved. Thank you.

23 VICE CHAIR BOYD: Can I ask a question here that
24 almost came upon in the previous school item, which was
25 Portola Valley, which knowing where that is, and it is a

1 fairly wealthy school district, I will bet, and it is probably
2 peopled by many scientific professors from Stanford
3 University, Commissioner Byron, who probably are very
4 cognizant of all these energy items and what have you --

5 COMMISSIONER BYRON: Commissioner, I do not think it
6 is that Portola Valley. Noticing the names of the schools, it
7 looks to me that it is out in the North Bay, but --

8 VICE CHAIR BOYD: Ah, okay. Well, it still raises
9 the question, do we have -- never having served on the
10 Efficiency Committee, and thus forgetting these items once in
11 a while, is there a extra special outreach program to schools
12 to help them with these kinds of activities vis a vis other
13 forms of government, perhaps, that are maybe slightly better
14 -- pardon the pun -- plugged into these kinds of efforts? It
15 seems to me schools are probably really in desperate need for
16 this kind of help and I hope and trust that maybe we are
17 really trying to reach out to schools to help them.

18 MS. HEINZ: I think Mr. Butler would like to address
19 that question. He is the lead of the ECAA Program.

20 VICE CHAIR BOYD: Very good.

21 MR. BUTLER: Good morning, Commissioners. My name
22 is John Butler, I am a supervisor in the Special Projects
23 Office. And, yes, we do have a special outreach program, it
24 is called our Bright Schools Program, where we can provide
25 technical assistance to schools around the state, K-12 schools

1 around the state, and identify energy efficiency opportunities
2 that may or may not come in later for an ECAA loan. So we
3 make sure that they are committed to having funding sources
4 available to implement the projects that we identify, and
5 hopefully we have the financing to provide to them at the
6 time.

7 MS. HEINZ: I would also like to point out that, in
8 this particular loan, you made mention of integrating PIER
9 technologies and those commercial technologies, and in this
10 instance, in these two 1950, early '60s vintage schools that
11 are K-8, the lighting upgrades include installation of high
12 efficiency integrated classroom lighting systems that were
13 developed with PIER funding and were at the California
14 Lighting Technology Center Manufacturers Fine Light, and there
15 was a test installation as a freebie to the one school to see
16 how it performed in a setting with teachers, and it was widely
17 accepted.

18 VICE CHAIR BOYD: Thank you for reminding me of the
19 Bright School Program, as well. I did know that, I had just
20 forgotten about it.

21 COMMISSIONER BYRON: Mr. Butler, while you are
22 there, let me ask another quick question, and that is, you
23 know, we approve these items, these loans, pretty quickly
24 here. I suspect a great deal of effort goes into developing
25 these on the part of the staff. Can you give me a sense of,

1 on average perhaps, how much staff time is involved in putting
2 one of these loan packages together?

3 MR. BUTLER: Well, it really does depend on the
4 project and the information that is provided, so during the
5 technical review, the applications, where staff confirm that
6 the energy savings and the baselines that are provided in the
7 application themselves are accurate, typically there will be a
8 site visit just to confirm the baseline, as well, before we
9 are moving forward. With the ARRA workload, I would say we
10 probably have not been doing that as much lately, but when we
11 look at the applications, staff will go out if there is any
12 kind of red flag, or if there is any kind of anomaly in the
13 energy savings that they are documenting to us, and confirming
14 those numbers before moving forward. In terms of time frames,
15 like I said, it just varies, so some of these applications are
16 very straightforward and very easy to evaluate, and they can
17 be turned around maybe in a month or two from the day we
18 receive the application to get to a Business Meeting approval;
19 others may take a little bit longer.

20 COMMISSIONER BYRON: Well, of course, when you say a
21 month or two, you mean on the calendar. But I am interested,
22 is it a couple of hours of staff time, or a couple of weeks of
23 staff time in putting these packages together?

24 MR. BUTLER: And you know what? About one week, I
25 am still learning myself --

1 COMMISSIONER BYRON: On average?

2 MR. BUTLER: -- on average, yeah, exactly.

3 COMMISSIONER BYRON: Thank you very much.

4 MR. BUTLER: You are welcome.

5 COMMISSIONER WEISENMILLER: I would just note that,
6 when PG&E has done its focus groups and public opinion
7 surveys, their activities with the schools, particularly with
8 the PV in the school programs were the most positively
9 received of all their programs.

10 COMMISSIONER EGGERT: And it is -- I am very
11 heartened to hear your comment about the transition from the
12 Lighting Technology Center into commercial, or near
13 commercial, application. I think the more opportunities we
14 can search out to make that connection between the PIER
15 research and actual in-the-field testing and demonstration,
16 not just in energy efficiency, but in transportation and other
17 areas, I think is really encouraging. Maybe just one last
18 question with respect to the Bright School Program -- is that
19 the name?

20 MR. BUTLER: Yes.

21 COMMISSIONER EGGERT: Is there also any connection
22 to school curriculum? Do they use any of these projects --
23 solar -- to teach the kids about the technologies?

24 MR. BUTLER: That, I am not aware of, if there is a
25 connection with a curriculum, but that would be something I

1 would have to look into and report back on.

2 COMMISSIONER EGGERT: Okay, thanks.

3 MS. JONES : And then I would just like to note that,
4 in addition to the conservation loans, the PIER research,
5 especially on the efficiency side, is designed to feed
6 directly into our standards process, so that is another way
7 that we capture the benefits of the PIER research.

8 CHAIRPERSON DOUGLAS: Well, thank you all for that.
9 We have concluded this item. This has been a good discussion
10 and sometimes, as Commissioner Byron notes, these loans pass
11 quickly on the Business Meeting Agenda, and it was a very good
12 thing to pause and take note both of the effort that goes into
13 them and of the many connections we are building here, both
14 between the PIER program, PIER research, the Lighting and
15 Technology Center, and the application through some of these
16 loans, and also, as Ms. Jones points out, the connection with
17 our standards program. So thank you very much.

18 We will move on to Item 12.

19 MS. HEINZ: Thank you. Once last item for the
20 record. I just wanted to put on the record a thanks to Mr.
21 Charles Maroon from PG&E, a PG&E Rep who was very helpful in
22 rate information and very helpful in the auditing that we did
23 with Servidyne Corporation. So I just wanted to make sure
24 that he is acknowledged. Thank you.

25 CHAIRPERSON DOUGLAS: Thank you, Ms. Heinz.

1 COMMISSIONER BYRON: And who do we acknowledge for
2 raising the rates? No, that is okay.

3 CHAIRPERSON DOUGLAS: Item 12. Pacific Gas and
4 Electric Company. Possible approval of Contract 500-09-027
5 for \$2.8 million with Pacific Gas & Electric Company for 36
6 months to demonstrate a 28 megawatt-hour utility-scale sodium-
7 sulfur battery energy storage system in California. Mr.
8 Gomez.

9 MR. GOMEZ: Good morning, Madam Chair, good morning
10 Commissioners. My name is Pedro Gomez and I am the Team Lead
11 and Supervisor of the Energy Systems Integration Program. As
12 you may already know, sodium-sulfur battery technology is the
13 most advanced battery technology available on the market
14 today. This project will install a 4 megawatt, 28 megawatt-
15 hour sodium-sulfur battery. It will be the largest active
16 sodium-sulfur battery system installed in California. This is
17 a utility-scale storage device that can be dispatched by the
18 CAISO for renewable integration and grid stability. The
19 second part of this project builds on previous PIER research
20 where they identified 18 possible sites for geological sites
21 for compressed energy storage. This part focuses on the top
22 three and actually does a more thorough investigation of each
23 one of those sites, so they will be doing some geological
24 studies to see the viability of those sites for compressed
25 air. That is it. I do recommend you approve this project,

1 specifically the sodium battery storage is a critical project
2 for renewable integration. I would be glad to entertain
3 questions.

4 CHAIRPERSON DOUGLAS: Thank you.

5 VICE CHAIR BOYD: A quick comment or two. Be
6 careful about singing the praises of sodium-sulfer other than
7 in stationary applications. Some of us old-timers remember
8 the mobile source application of sodium-sulfer which happened
9 to be hot batteries and some torched Ford products as a result
10 thereof. My only other comment is this is a really good
11 project. Energy storage is talked about a lot, of late, in
12 this country and I really hope that somehow or another we can
13 give some significant notoriety to this project, perhaps a
14 press release. I know it is real techy, but it is very
15 integral to the Smart Grid discussion that are going on of
16 late. Grid reinforcement is critical to what was just
17 commented about, our renewables program and efforts in the
18 state, so there is a very broad connection and, as indicated,
19 this is a critical project and I am glad to see it here. It
20 did, of course, come through the R&D Committee. And I would
21 move its approval, although there may be other comments or
22 questions.

23 COMMISSIONER BYRON: Commissioner Boyd, I am really
24 glad to hear you say that. We have not had an opportunity to
25 talk about this project and I am glad to hear that you were

1 able to finally figure out a way to help support this. Having
2 chaired the PIER Transmission Research Committee's program,
3 Advisory Committee on Transmission, I should say, PG&E has
4 been looking for a home, if you will, and a source of funds
5 for this project for a long time and I applaud PG&E's efforts
6 to demonstrate this intermediate level of storage, or
7 intermediate voltage level of storage. I am very interested
8 in this project, have been for a long time. I will tell you
9 right now, I would very much like to have a tour of this at
10 the appropriate time and understand it better, and I guess one
11 other question that I really do not expect you to be able to
12 answer because I have not been able to answer it, or find
13 anyone that has been able to answer it, but, you know, FERC
14 just last week made a ruling with regard to storage in their
15 tariff proceeding and we are trying to piece together the
16 implications of that. Pedro, do you know anything, Mr. Gomez,
17 do you know anything about that?

18 MR. GOMEZ: I do not, but I know that I would point
19 to my esteemed boss, to my left, Mike Gravely.

20 COMMISSIONER BYRON: Mr. Gravely, you know about
21 this already?

22 MR. GRAVELY: Sir, we are looking into it and it
23 does appear that one of the challenges we have been working
24 on, on rate structures for large storage, may be addressed by
25 that, specifically addresses as applications like this, so we

1 do think it is a possibility. Again, I do not know all the
2 definitive facts, but it certainly addresses technologies in
3 this area and it may be a way for utilities to fund these,
4 that they have not been able to in the past, which has been
5 one of the barriers that we have been trying to address.

6 COMMISSIONER BYRON: Exactly. Well, again, my
7 thanks to PIER for assisting in this, but also to PG&E for
8 pursuing this project. I think it is extremely valuable and
9 important. Enough said. Thank you.

10 MR. GRAVELY: I am sorry, for the record --

11 VICE CHAIR BOYD: Mr. Gravely, I am fascinated with
12 and almost blinded with that tie of yours.

13 MR. BLEES: Commissioner Byron? I can add a couple
14 of details about FERC's approval last week. This was an
15 application for the installation of -- I believe it was seven
16 different battery systems that would be integrated with the
17 grid and provide storage so that renewables and other
18 technologies could be better integrated into the system. A
19 couple of things that FERC did to encourage the installation
20 of these battery systems is that is provided a rate of return
21 for the project that is 1.95 percent greater than the ordinary
22 rate of return for utility transmission projects, and it also
23 provided construction work in progress treatment for the
24 capital investment, which means that the utility is able to
25 receive a return on its investment as it spends money on the

1 project, without having to wait until the project is complete,
2 or to use the legal utility regulation phrase, "used and
3 useful."

4 COMMISSIONER WEISENMILLER: I think there is also an
5 issue with the CAISO, the question is ultimately who operates
6 it. I think the Applicant there and FERC have sort of
7 directed the ISO, or handed it over to the ISO, and to the
8 extent they are trying to keep the separation between
9 transmission and generation, they are not looking to operate
10 the facility. So there are still a few issues for that
11 specific project bouncing around.

12 COMMISSIONER BYRON: And I am glad to see FERC has
13 recognized that they need to put the right cost incentives in
14 place in order for utilities to invest in these kinds of
15 things, and also recognizing going forward that, if we are
16 going to integrate a high percentage of renewables, we are
17 going to need to figure out storage on the system and the
18 advantages that it provides. So, Commissioner, as we have
19 discussed, we will be taking this up in our new Transmission
20 Committee, and I suspect also Commissioner Boyd may be in
21 Electricity and Natural Gas to come extent here soon.

22 VICE CHAIR BOYD: Well, I was going to say I am glad
23 the Commissioner brought up the issues, the fact that there
24 are still discussions with regard to -- is this transmission?
25 Is this generation? Or how do we allocate it? How do we

1 treat it? And what have you. So that is still something that
2 I am sure we will have to consider and the PUC definitely will
3 have to consider in its ratemaking.

4 CHAIRPERSON DOUGLAS: Very well. We have a motion.
5 Is there a second?

6 COMMISSIONER BYRON: I will second it.

7 CHAIRPERSON DOUGLAS: All in favor?

8 (Ayes.)

9 The item is approved.

10 MR. GOMEZ: Thank you.

11 CHAIRPERSON DOUGLAS: Item 13. Scripps Institution
12 of Oceanography. Possible approval of Contact 500-09-025 for
13 \$1.1 million with Scripps Institution of Oceanography to
14 support the 2010 Scenarios Report to the Governor, research
15 weather and climate change effects on wind energy production
16 and address hydrological climate modeling uncertainty. Mr.
17 Franco.

18 MR. FRANCO: Good morning, Commissioners. My name
19 is Guido Franco. I am with your Public Interest Energy
20 Research PIER Program. As you know, the Energy Commission
21 created in 2003 a virtual research center on climate change
22 that is known as the California Climate Change Center. The
23 Center has four areas of research, of major areas of research;
24 one of them has to do with a study of how climate is changing
25 and how climate may change in the rest of the century.

1 Scripps Institution of Oceanography has been the main source
2 of research products in this area of research. The Center has
3 produced several products that have been influential in the
4 formulation of climate change policy in California. For
5 example, the 2006 impact assessment summarized in the
6 document, as very well known, *Our Changing Climate*, was
7 influential in the passage of AB 32, the things that were
8 Global Warming Solutions Act of 2006. More recently, our work
9 has supported the recently adopted California Adaptation
10 Strategy that was released by the Resources Agency in
11 December. The Center is also producing tools, and data is
12 being used for long-term planning in California; for example,
13 the PIER Program funded the developing of a dynamic ecological
14 model that is being used by the Department of Forestry, or Cal
15 Fire for the preparation of their five-year long-term Forestry
16 Plan. And I said all of this because I just want to give you
17 a context of what this project is about. This agreement would
18 allow Scripps to continue supporting the activities of the
19 Resource Center in the area, again, of looking at climate
20 monitoring and also how climate may change in the future.
21 There are several tasks under this agreement, I will note this
22 is not all of them, but I just want to give you some samples.
23 One of them has to do with looking at the uncertainties in our
24 estimations of how stream flows will change in our rivers.
25 That is important because we want to know how climate change

1 may affect hydropower generation in California. And our
2 project, for example, is to try to develop a new model that
3 will downscale the outputs of these global climate models to
4 wind fields in California, to look at, for the first time, to
5 estimate how climate change may impact wind resources in
6 California, like, for example, in areas such as the San
7 Gregorio Pass, Tehachapi Pass, and the Montezuma Hills in
8 Solano County. So there is a series of activities that
9 Scripps will be undertaking under this agreement, all of them
10 in support of the Climate Change Center. With that, I am
11 ready to answer any questions that you may have.

12 VICE CHAIR BOYD: A couple comments if I might. Let
13 me just congratulate Mr. Franco for all the work he has done
14 over the years on climate change, I think one of the unsung
15 heroes of the state's effort. He made a very important point
16 in references the California Climate Change Center. We have
17 kind of called it a Virtual Center. I just want to make a
18 point that we have a climate change center in California, it
19 has probably been too virtual, and thus ignored by some folks
20 for some period of time, this agency has been the patron of
21 that center. That center has done the lion's share of the
22 work that has found its way into many agencies' AB 32
23 activities, and definitely is of solid foundation under the
24 Climate Adaptation Program of the Natural Resources Agency.
25 So once again, perhaps one of the unsung heroes of climate

1 change in the state is the work done at this agency and by the
2 Research and Development Division, and led strongly by Guido
3 and his efforts. You also referenced the Changing Climate
4 Report which, as he remembers, I will bet, that he and I and
5 Commissioner Rosenfeld were at a conference in Aspen several
6 years ago where my role was to talk to scientists about how to
7 communicate policy from science to policy-makers, and also how
8 to help the California effort in AB 32, the Changing Climate
9 Report was a product of that effort, it was done by the
10 scientist primarily of California, but was a very significant
11 and instrumental piece of work. And, again, it is a product
12 of scientists all over who have been doing work, but those
13 scientists are, for the most part, part of the California
14 Climate Change Center network, and thus have been heavily
15 financed by this agency's research and development program,
16 and the consequences to energy production and use in
17 California of climate change are incredibly significant,
18 everything from the loss of wind, loss of hydropower, to the
19 acknowledged incredible demands for air-conditioning that will
20 occur, and could occur even more in the future, putting a huge
21 strain on our system. So, a very good program and I am glad
22 to see it moving forward, and I just hope it gets more
23 acknowledgement and more credit than it has in the past. And
24 we will keep trying to move it forward. I will move approval
25 of the item also.

1 CHAIRPERSON DOUGLAS: It looks like there are a
2 couple more comments.

3 COMMISSIONER BYRON: I -- Commissioner, do you want
4 to make a comment?

5 COMMISSIONER EGGERT: Please, go ahead.

6 COMMISSIONER BYRON: I was also going to say
7 something, Mr. Franco, but these are not rehearsed or
8 coordinated, but I will make my comments about your
9 capabilities more broadly and I think you are an excellent
10 scientist, one of the many excellent scientists we have at
11 PIER, and I appreciate your coming up and briefing me on the
12 subject the other day. I, too, am very impressed with the
13 work that goes on in this area and I am really glad to hear
14 Commissioner Boyd say that, as well. So I will compliment
15 you, as well as all the other many good scientists in PIER.
16 Thank you.

17 COMMISSIONER EGGERT: Just a follow-up on a couple
18 of comments that Commissioner Boyd mentioned. I think that I
19 would also just sort of echo the fact that it really is as the
20 result of this research that has led to the policy regime
21 under AB 32, and I think that having good science to
22 underlying policy is going to be critical going forward, and I
23 think what is really intriguing about some of these new
24 research directions, at least as I understand them, is that we
25 are starting to get to a level of specificity on the impacts

1 that we can actually then start to make practical use in terms
2 of planning. And I think that is a result of all the hard
3 work that has been done, and the refinement of the models.
4 And actually one question I have is, we had sat through a
5 series of discussions last week, talking about renewables
6 development across the state, including wind and solar thermal
7 in the desert, and in an attempt to start to plan more
8 regionally for both the renewables development activities and
9 the mitigation activities for any impacted species. And I
10 guess one question is, do we anticipate some of this work
11 providing some insights as to how a changing climate might
12 affect those habitats as we sort of plan for mitigation for
13 some of these projects?

14 MR. FRANCO: Yes. We are designing a large study
15 that is being headed by my colleague, Ms. Sarah Pittiglio, and
16 that study would look at modeling death into the potential
17 impacts of climate change in ecological systems. We also have
18 a project that was approved in concept by the R&D Committee,
19 looking at the potential impacts of climate change on
20 renewable resources of energy -- solar, wind, and this is part
21 of that package. But, yeah, so we will have products that
22 will be useful.

23 VICE CHAIR BOYD: I am reminded by your question of
24 one other thing that California has done, and the CEC has
25 aided that, one of the questions of us at this conference

1 several years ago was, you know, what more is needed in the
2 way of science to help policy makers make decisions, and one
3 of the things we asked for was to turn some of these micro-
4 scale models into micro-scale models, you know, so we can look
5 at the effects in regions and in areas and specifically in
6 California. And that has been accomplished. And a lot of the
7 data that we have of late about what could happen to
8 California is a product of the effort to bring these models
9 down to a level that very specifically points out what the
10 effects would be in California. And it suddenly reminds me,
11 Guido and I attended an event a few weeks ago with the
12 Governor where we and Google, although Google seemed to get
13 all the credit in the press, I noted, unveiled the Google Maps
14 effort, which is now launched, but being further developed,
15 which will allow anyone -- but allow scientists, in particular
16 -- to take the data that we have provided and bring it down to
17 any specific geographic area in the state, and it is quite
18 fascinating. It is analogous to flying over the surface of
19 Mars or something that you have seen in so many of the science
20 shows over the years, and fly over the surface of California
21 and pinpoint an area and get a fairly good idea where the data
22 exists of what the future might be for that area, including
23 finding that Treasure Island will be half under water in the
24 future. In any event, a lot of good things. I am glad it is
25 getting some notoriety and some discussion today.

1 COMMISSIONER WEISENMILLER: I just briefly wanted to
2 say that I think it is very important, obviously, that as a
3 scientist on the Commission, that we have strong science,
4 research and development in this area, that it can be used to
5 help drive the policy for the state, but also that it is very
6 important to communicate those results in some fashion so the
7 general public can understand those.

8 COMMISSIONER EGGERT: Yeah, just to follow on to
9 that, I mean, I think it is quite thrilling that we are
10 establishing these partnerships with organizations like
11 Google, even if they do take a lot of the credit because, as a
12 mechanism to sort of deliver that to individuals, that
13 information to individuals, I think that is going to be both
14 having value for their purposes in planning whether it is
15 agricultural systems and such, and also I think support for
16 the policy. People are much more likely to support something
17 that they understand as to how it might actually impact them
18 over time.

19 COMMISSIONER BYRON: Madam Chair, I second the item.

20 CHAIRPERSON DOUGLAS: All in favor?

21 (Ayes.)

22 The item is approved.

23 Item 14. Lawrence Berkeley National Laboratory.
24 Possible approval of Contract 500-09-026 for \$3 million with
25 Lawrence Berkeley National Laboratory. Mr. Bourassa?

1 MR. BOURASSA: Good morning, Commissioners,
2 Director, and Attendees. I am Norm Bourassa up in the PIER
3 Buildings Energy End Use Program. And this is Joe Fleshman,
4 the Contract Manager from the PIER Buildings Program that will
5 be managing this project. This proposed agreement with
6 Lawrence Berkeley National Lab proposes to initiate a Phase 2
7 agreement in order to build upon the High Performance Building
8 Façade Solution Project that is in the closing phases that was
9 Contract 500-04-010. The new agreement requests \$3 million
10 over three years. The first project was a three-year project
11 funded at \$500K per year by PIER Buildings, and \$1 million per
12 year by the DOE. This is a facility -- actually in this
13 second go around, the Department of Energy is agreeing to fund
14 \$6 million -- \$2 million per year. So why am I mentioning
15 these numbers? Well, due to the success of this facility to
16 test out high performance windows -- and not just the windows,
17 not just the glazing, it is the window façade systems that we
18 are testing. We are in agreement that the first three-year
19 phase was so successful, we collaboratively agreed to scale up
20 the testing on this facility and each -- the DOE and PIER --
21 double our funding for a new three-year period. The windows
22 façade test bed, as we usually refer to it, is a classic
23 public goods user facility designed to develop public goods,
24 public domain knowledge that all of the industry and the
25 market can freely draw upon, and further their products to

1 improve energy efficiency and energy savings for the
2 California ratepayers. And in this case, we lead the nation.
3 You may know that Lawrence Berkeley Lab is, in fact, the
4 source researcher for the whole concept of Low E windows, and
5 the Low E windows two decades ago basically revolutionized
6 window systems for buildings. As I mentioned already, we test
7 window systems, basically the glazing, frame, internal and
8 external, both active and passive shading devices. Through
9 the active participation of the utilities, manufacturers, and
10 the DOE, we are basically going to be leveraging our funds at
11 greater than 2:1. I will also point out that, Commissioner
12 Boyd, you are visiting LBNL this weekend, this Friday, right
13 around 11:00, just before Noon, you will be seeing this exact
14 facility that we are funding. This project is included in the
15 2009-2010 budget, the R&D Committee has approved it, and I
16 will answer any questions that you might have.

17 VICE CHAIR BOYD: I would move approval if there are
18 no questions.

19 COMMISSIONER BYRON: It merits a great deal of
20 discussion. I think it is a substantial amount of money, but
21 another good project put together, Mr. Bourassa, thank you
22 very much. I second it.

23 CHAIRPERSON DOUGLAS: All in favor?

24 (Ayes.)

25 Thank you very much. The item is approved.

1 MR. BOURASSA: Thank you.

2 CHAIRPERSON DOUGLAS: Item 15. C&G Technology
3 Services, Inc. Possible approval of Contract 09-409.00-016,
4 for \$143,550 with C&G Technology Services, Inc. to develop and
5 implement an internet-based version of the California Utility
6 Allowance Calculator (CUAC). Mr. Hoellwarth.

7 MR. HOELLWARTH: Thank you. Good morning. My name
8 is Craig Hoellwarth. I am the Supervisor of High Performance
9 Buildings. I think on your agenda you see Adrian Ownby's
10 name, he is our subject matter expert, but he called in sick
11 today, so I am sitting in for him. So if you will bear with
12 me, I have got some information here. I thought I would read
13 you some background on the program because I know we have some
14 new Commissioners, and I will give you a little blurb on the
15 purpose for this particular contract. So bear with me here.
16 "In developing the New Solar Homes Partnership, the Energy
17 Commission established the Affordable Housing Advisory
18 Committee to identify barriers to the achievement of high
19 efficiency solar homes in California's affordable housing
20 sector and make recommendations for reduction of those
21 barriers. In 2007, the Affordable Housing Advisory Committee
22 brought to the Commission's attention the major barrier for
23 energy efficiency and renewables that is caused by an approach
24 to establishing utility allowances for determining allowable
25 gross rents for affordable housing. That approach to

1 establishing utility allowances, consistent with the U.S.
2 Internal Revenue Service regulations, resulted in allowances
3 that do not vary as a function of the Energy Efficiency or use
4 of renewable energy of a specific affordable housing project.
5 Gross rent, defined as actual rent plus the utility allowance,
6 determines the cash flow that is achievable for the affordable
7 housing project, and therefore, the total amount of private
8 capital that a project can obtain to support the development
9 or rehabilitation of the project. Since the previous approach
10 developing utility allowances ignore the energy savings that
11 is achieved through energy efficiency or renewable energy
12 improvements, energy efficiency and renewable investments had
13 no impact on the financing that a project could attract as a
14 result of its income through gross rents. If energy savings
15 from energy efficiency and renewable energy were considered in
16 determining the project's utility allowance, the reduced
17 energy cost, and therefore the increased project income that
18 resulted, could become important in determining the amount of
19 private financing available for the project, potentially
20 increasing the total capital available to the project by more
21 than the incremental cost of the energy efficiency and the
22 renewable energy improvements."

23 Now, the purpose of this agreement before you is to
24 make substantive improvements in the existing California
25 Utility Allowance Calculator, or CUAC as we might call it,

1 software, and help ensure the professionalism of its users in
2 the quality of its outputs. The Energy Commission currently
3 provides the CUAC as a downloadable Microsoft access-based
4 software tool. Energy consultants are responsible for using
5 the CUAC to generate certified projects specific utility
6 allowances. State and local affordable housing authorities
7 and funding agencies with regulatory authority over affordable
8 housing projects have the responsibility of making sure that
9 the CUAC is properly implemented. So we have a CUAC, or our
10 calculator, in place today in Microsoft downloadable format.
11 This contract is really to make this software web accessible
12 and internet consistent, make it more usable, user friendly,
13 and to also collect data on who and how the tool is being
14 used.

15 COMMISSIONER EGGERT: Just a quick question. You
16 mentioned other agencies. Is that like HCD or who would be --

17 MR. HOELLWARTH: Well, this really comes under the
18 purview of the State Treasury Department and it really
19 connects with the tax orientation of these kinds of projects.

20 COMMISSIONER EGGERT: Okay. Have they been involved
21 in the project, as well?

22 MR. HOELLWARTH: Oh, yes. In fact, Adrian now is
23 providing some consulting help for the implementation process
24 and, of course, with this tool, it will make it more
25 accessible and we will learn some more about how this is

1 really going to support affordable housing projects. Other
2 questions? Thank you.

3 COMMISSIONER WEISENMILLER: This seems to be a very
4 important project. Obviously, we really need to focus on the
5 affordable housing element. And I think doing the connection
6 with the financial communities so they can evaluate the
7 effects of these investments on the credit of the assets is
8 very important. At one stage, I do not know if they still
9 are, but I think Edison Capital was investing in affordable
10 housing, I do not know if PG&E, but certainly to the extent
11 some of the utilities at the holding company level have these
12 sort of affordable housing programs, that hopefully they can
13 use this sort of tool to do more investments.

14 CHAIRPERSON DOUGLAS: Very well, if there are no
15 more questions or comments, is there a motion?

16 COMMISSIONER WEIDENMILLER: I would move it.

17 COMMISSIONER EGGERT: Second.

18 CHAIRPERSON DOUGLAS: We have a motion and a second.
19 All in favor?

20 (Ayes.)

21 The item is approved. Thank you, Mr. Hoellwarth.

22 Item 16. Office of Inspector General. Possible
23 approval of a no-cost interagency agreement with the Office of
24 the Inspector General to provide services related to review,
25 audits and investigations regarding recipients of American

1 Recovery and Reinvestment Act of 2009 (ARRA) funds received
2 through the Energy Commission. Mr. Perez.

3 MR. PEREZ: Good morning, Chairman Douglas and
4 fellow Commissioners. I am Pat Perez representing the Energy
5 Commission's Executive Office, and I am here today to seek
6 your approval for a no-cost interagency agreement with the
7 Office of the Inspector General. Inspector General Laura
8 Chick has requested formal agreements between her office and
9 all agencies, departments, and other entities that are
10 administering Recovery Act funding under the American Recovery
11 and Reinvestment Act. The purpose of the agreement is to
12 allow the Inspector General to conduct audits, reviews, and
13 investigations of entities, as well as sub-recipients that
14 will be receiving energy funding from the California Energy
15 Commission. Staff supports the no-cost interagency agreement
16 and firmly believes that it is critical for meeting the
17 overall objectives of the Recovery Act, which is to ensure
18 transparency, accountability, as well as the proper
19 expenditure of Economic Stimulus Funds. Also, I would like to
20 say that it also reinforces the Governor's April 3rd Executive
21 Order, which established the position of the Inspector General
22 and laid out the roles for the Inspector General, which is to
23 ensure the proper utilization of the Recovery Act Funds in a
24 transparent manner, and as well as detect any potential misuse
25 of funds. So with that, I am available to respond to any

1 questions you may have.

2 CHAIRPERSON DOUGLAS: Thank you, Mr. Perez. Are
3 there any questions?

4 COMMISSIONER BYRON: If it does not, I hope the
5 preamble of our agreement states that we welcome and encourage
6 independent reviews and audits of our programs. Of course, I
7 do not expect them to find anything, but this Commissioner is
8 very interested in the results of such an audit. Thank you,
9 Mr. Perez.

10 MR. PEREZ: You are welcome.

11 CHAIRPERSON DOUGLAS: Thank you, Commissioner Byron,
12 and I agree, transparency is one of our most important values
13 here, as well as accountability in ensuring that we deliver
14 the results that are programs are designed to deliver. So I
15 also strongly support this agreement. Are there any other
16 comments or questions?

17 COMMISSIONER BYRON: Madam Chair, I move the item.

18 COMMISSIONER EGGERT: Second.

19 CHAIRPERSON DOUGLAS: We have a motion and a second.
20 All in favor?

21 (Ayes.)

22 The item is approved.

23 MR. PEREZ: Thank you for your support.

24 CHAIRPERSON DOUGLAS: Item 17. New Solar Homes
25 Partnership (NSHP) Guidebook. Possible adoption of the

1 Renewables Committee's proposed revisions to the NSHP
2 Guidebooks. Mr. Goncalves.

3 MR. GONCALVES: Thank you, Chairman, Commissioners.
4 I am Tony Goncalves, Manager of the Renewable Energy Office.
5 The New Solar Homes Partnership offers incentives to encourage
6 solar installations with high levels of energy efficiency in
7 the residential new construction market and has a goal of
8 achieving 400 megawatts of installed PV by 2016. The proposed
9 changes are primarily intended to clarify program requirements
10 and simplify the application process, and to make them
11 consistent with Senate Bill 1 Guidelines. The proposed
12 changes include clarifying the eligibility of lease systems
13 and systems providing electricity under Power Purchase
14 Agreements, modifying the Solar as an Option Program by
15 allowing up to 50 percent of the project's residential draw
16 units to reserve funding, and extending the reservation period
17 to 36 months, allowing system size upgrades to be calculated
18 at the incentive level the reservation was initially approved,
19 providing incentives for only the first 7.5 kilowatts for
20 systems installed on residential dwelling units with no system
21 size justification required, updating the energy efficiency
22 tier levels to conform to the new 2008 Building Standards,
23 updating the California Flexible Insulation Criteria Tilt
24 range to include flat installations, allowing affordable
25 housing with Occupancy Permits less than two-years-old to

1 apply for incentives, explicitly recognizing virtual net
2 metering for affordable housing, and allowing projects
3 requesting funding from the California Tax Credit Allocation
4 Committee additional time to provide their finalized energy
5 efficiency documentation. Additionally, staff has proposed
6 Errata that are either editorial or intended to provide
7 clarification or response to comments submitted by several
8 stakeholders. Copies of the Errata are on the back table and,
9 hopefully, you all have a copy of those Errata. At this
10 point, I would like to ask whether you would like me to read
11 all of the changes in the Errata into the record, or to simply
12 summarize those changes.

13 CHAIRPERSON DOUGLAS: Well, thank you for bringing
14 them by all of the Commissioners' offices. I think the
15 preference would be for you to summarize the changes. We have
16 all had a chance to review them.

17 MR. GONCALVES: All right, I will do that. On page
18 6, we are simply re-inserting some language that was
19 inadvertently removed in the recent changes. The figures on
20 pages 7 and 8, we are simply adding clarification with regards
21 to which forms need to be submitted at each step of the
22 process. On page 9, we clarify how the Guidebook changes
23 affect existing applicants. Page 17 clarifies how to self-
24 register. On page 18, we make changes that are editorial in
25 nature to the section on Lease Provisions. The changes on

1 both pages 28 and 29 are simply editorial in nature. Changes
2 on page 31 simply add an additional electronic file type that
3 will be accepted as back-up. And on page 34, we clarify the
4 needed documentation for leased and Power Purchase Agreement
5 systems. In the Appendix on page 50, the changes there are
6 merely editorial. And finally, we are making some conforming
7 changes to Forms NSHP 1, NSHP 1.5, and NSHP 2.

8 CHAIRPERSON DOUGLAS: Thank you for that summary,
9 Mr. Goncalves. We have a number of members of the public who
10 would like to speak, and I think Commissioners agree we will
11 take comments before moving to questions from the Dais. Did
12 that conclude your presentation?

13 MR. GONCALVES: Yes, it did.

14 CHAIRPERSON DOUGLAS: Very good.

15 MR. GONCALVES: I believe Mr. Herrera may have --

16 CHAIRPERSON DOUGLAS: Oh, Mr. Herrera.

17 MR. HERRERA: Gabe Herrera with the Commission's
18 Legal Office. I need to make some comments on the record
19 concerning CEQA. I can do it after the public comments if you
20 like.

21 CHAIRPERSON DOUGLAS: Please, go ahead.

22 MR. HERRERA: When the Commission proposes guideline
23 revisions such as these, the Legal Office takes a look at the
24 revisions to see if they constitute a project under the
25 California Environmental Quality Act, commonly known as CEQA,

1 and in this case the Legal Office took a look at these
2 proposed revisions and determined that it was not a project
3 under CEQA, and the reason is that these guideline changes are
4 changes to a funding mechanism, and to the creation of funding
5 mechanisms that do not result in funding actually being
6 provided or approved for a specific project. Those kind of
7 activities are exempt, and not defined as a project under
8 Title 14 of the California Code of Regulations Section
9 15378(b)(2) and (b)(4). In addition, the adoption of these
10 guidelines is exempt from what is commonly referred to as the
11 Common Sense Exception under CEQA, and that is provided in
12 Title 14 of the California Code of Regulations Section
13 15061(b)(3).

14 CHAIRPERSON DOUGLAS: Thank you, Mr. Herrera. We
15 will take public comment on this item now, beginning with
16 George Nesbitt with CALHERS.

17 MR. NESBITT: George Nesbitt, Environmental Design
18 Build. I am a Home Performance Contractor, HERS Rater,
19 Greenpoint Rater, Certified Energy Plan Examiner, and
20 hopefully a passive house consultant. I would like to thank
21 the Commission for your support of HERS Raters with the New
22 Solar Home Partnership Program. Unfortunately, the IOUs have
23 chosen to hire private subcontractors, and I will cover more
24 of that in public comment. I would like to thank you for
25 making some changes in the Guidebooks based on comments that I

1 have been asking for the past year or more, a clarification on
2 efficiency measures, as well as some of the issues with multi-
3 family and mixed use. I also want to thank you for
4 considering the comments I delivered after the Business
5 Meeting two weeks ago, I got here too late and you postponed
6 it. The one fix that got put in was the micropas version 8
7 file because, God forbid, some heartless bureaucrat would kick
8 an application back because you submitted an MP-8 for 2008
9 Energy Code, and the form says you needed an MP-7. So what I
10 would like to touch on are some of the issues that do need
11 clarification that are not in there yet. The big one, all
12 efficiency measures. Under the current guidelines, it is
13 totally unclear. The website has talked about HERS
14 verification for the PV system and for Title 24 credit
15 measures such as QII duct testing. CHEERS, as well as
16 CalCERTS trains us to verify everything on a CF1R. CHEERS, in
17 addition, tells us we are supposed to check all the mandatory
18 measures. The current revision does not define what all
19 efficiency measures are, what I am supposed to verify. Yes,
20 on the claim form you reference, say, CF4R and SHP, which rule
21 I guess defines this, but it is not here to review and comment
22 on, nor is it clear in the Guidelines up front what you have
23 to. One of the issues is I am working on a house that has
24 been occupied for a year, so that is one of the results of
25 this lack of clarity. You need to specifically, you know, say

1 that a HERS rater needs to be involved in rough construction
2 in order to verify these things. You need to require the HERS
3 rater on the NSHP-1 application because, I have to tell you,
4 at that point, most of the projects are underway. All my
5 multi-family HERS verifications, pre-2006, were all completed
6 before I got called. SB 1 Guidelines -- we have been asked to
7 meet requirements that are in the SB 1 Guidelines, yet the
8 NSHP Guidelines have no reference to the SB 1 Guidelines as a
9 document, so from a legal standpoint, it is a lot better if
10 you say, "You also have to comply with all the regulations in
11 the SB 1 Guidelines." PERF 1, which is a non-residential
12 file, which is important for multi-family, as well as mixed
13 use, you say it needs to be 15 percent above code, but what I
14 think you need to clarify is that is excluding process load,
15 at least on multi-family high rise, because there is a big
16 difference there. A little editing nitpick, HERS Rater and
17 HERS Provider need to be -- Rater and Provider need to be
18 starting with capital R and P. They are on the NSHP-1 and 2,
19 but not in the text. You know, it is -- you are using it
20 essentially as a name, you know, and it puts more emphasis on
21 Rater. Last issue is multiple orientations, which is when you
22 have multiple strings on a given inverter that face different
23 orientations, or have different tilts. It is also interpreted
24 as if there are different shading conditions, so I am told by
25 installers that the Energy Commission tells them to do that

1 when it is shading, yet the Guidelines do not say that is an
2 acceptable reason for going to that methodology. Beyond that,
3 there are actually a lot of issues that creates -- makes it
4 very confusing for the HERS Rater clients, and actually I
5 think creates some downstream issues that I will not go into,
6 because I think fixing that is a little bit beyond the
7 revisions you want to do right now. I do want to encourage
8 you to adopt these changes, they are a move in the right
9 direction, but I strongly urge you to take into consideration
10 these further clarifications because I do not think the Energy
11 Commission's goals are clearly defined as well as the rules.
12 So I do not know if that means delaying it another couple of
13 weeks, or adopting it and having staff go back and come up
14 with more revisions, but please do not let it sit another year
15 and a half. And I will go into why on that later at public
16 comment. I just wanted to focus on the specific revisions.

17 CHAIRPERSON DOUGLAS: Mr. Nesbitt, is it your
18 interest in coming back and talking about other topics later
19 at public comment because you do not think they are related to
20 this item? Or --

21 MR. NESBITT: I wanted to break it up. I wanted to
22 address more specific revisions that can be done here and now
23 versus sort of some broader issues with the program, and just,
24 you know, break up the time period rather than droning on and
25 on and on.

1 CHAIRPERSON DOUGLAS: Well, if you --

2 MR. NESBITT: I would rather come back later to do
3 the other.

4 CHAIRPERSON DOUGLAS: -- would rather come back,
5 then that would be fine. Mr. Goncalves, could you respond to
6 some of these issues?

7 MR. GONCALVES: I think we would be happy to work
8 with Mr. Nesbitt. I do not know if we can address these here
9 and now, right now, but we would be happy to work with Mr.
10 Nesbitt to look at these changes and see which ones we can
11 incorporate in the future.

12 COMMISSIONER BYRON: Did you have an opportunity to
13 hear these comments before?

14 MR. GONCALVES: You know, honestly, these comments
15 did not make it to me, so I had not seen these particular
16 comments.

17 MR. NESBITT: Can I make a comment on that? These
18 revisions -- I made comments back in April at a workshop, and
19 I have been waiting for something to happen, and about
20 December 30th or 31st, the notice went out that it was -- that
21 the revisions were going up for adoption at the January 13th
22 meeting. So there was no public -- there was no public
23 meeting on the proposed changes, so it went -- it came
24 straight to you, so the only comment period was less, you
25 know, about two weeks, and would have been written comments.

1 I actually came out two weeks ago, but I got here too late and
2 the item got postponed. So -- but I delivered basically all
3 these in person after the Business Meeting two weeks ago to
4 Sandy Miller and Le-Quyen, and we talked about them. So, and
5 the MP8 got in there, so something got in.

6 MR. HERRERA: Chairman Douglas, if I could respond
7 at least to one of the points Mr. Nesbitt raised, and that is
8 it appears that the term HERS Raters, the "R" in Raters is not
9 capitalized. In those kind of grammatical changes, I think we
10 could make with the Commission's approval here; with respect
11 to some of the other recommended changes, I think we are going
12 to have to go back and look at those comments because I, like
13 Mr. Goncalves, did not receive those. We did receive docketed
14 comments from two other parties, Peterson Dean and Sunpower,
15 and it was based upon those comments that staff recommended
16 this item be pulled so that we could consider their comments,
17 and we have to the extent we can, in the Errata that is being
18 discussed.

19 COMMISSIONER EGGERT: Could I just ask a quick
20 question with respect to the HERS rating component. Is it
21 currently required that these undergo a HERS rating? Is --

22 MR. HERRERA: Yes, that is correct.

23 COMMISSIONER EGGERT: Okay, and that occurs at which
24 point in the process?

25 MR. HERRERA: Well, it occurs in the application.

1 So the way this program works is that an end-use customer or
2 home builder comes to the Energy Commission and reserves
3 funding for a specific group of projects. And then they move
4 forward to install those projects. Once the installation is
5 made, then the applicant needs to provide some documentation
6 that they have satisfied energy efficiency requirements, as
7 well as other requirements of the program. And the HERS
8 Raters get involved at that step by providing a verification
9 to the Home Builder which, in turn, is submitted to the Energy
10 Commission.

11 COMMISSIONER EGGERT: Okay. Thanks.

12 CHAIRPERSON DOUGLAS: I was just conferring with the
13 Executive Director on some ideas for process. I think we have
14 a bit of a dilemma here because there is tremendous interest
15 in this Guidebook, these Guidebook provisions being in place,
16 and there are and have been a lot of stakeholders who have
17 been waiting very eagerly for this, and I do not want to
18 disappoint them by pushing off revisions that they have been
19 waiting for and working for, for quite some time, in order to
20 get some of these details exactly right; and, on the other
21 hand, I also am concerned that, as you say, you may not have
22 had sufficient -- either time or space -- to engage in this in
23 a way that might have allowed you to work with staff. And I
24 think these are all issues that just, on first impression, do
25 sound imminently resolvable, but not here and not now. My

1 suggestion if Commissioners are in agreement is that we move
2 ahead and go forward with adoption of the Guidebook, but that
3 we direct staff to work with Mr. Nesbitt expeditiously and if
4 there are revisions that you are able to agree on with him to
5 address some of his concerns, please bring them to us. Mr.
6 Nesbitt, if you have concerns of any kind, please contact and
7 work with the Commissioners on the Renewables Committee. But
8 we are interested in addressing your concerns. I think that
9 it can be done relatively expeditiously, but I personally
10 prefer not to hold off on the Guidebook adoption, given the
11 importance of moving forward.

12 VICE CHAIR BOYD: One additional comment. We might
13 want to take Mr. Herrera up on his suggestion that the
14 grammatical fixes be done and that we so delegate in our
15 approval, in our motion to approve, to fix those kinds of
16 things.

17 MR. NESBITT: I mean, I agree, I do not want to hold
18 it up and I think most of the revisions that I am talking
19 about at this point are really further clarification of what
20 you have done, and so if we come back in a month and, you
21 know, make some changes that make everything more clear. I am
22 not talking like, you know, changing the program, or major
23 changes.

24 CHAIRPERSON DOUGLAS: Or you are reserving that for
25 public comment? In any case --

1 MR. NESBITT: No, I just want to further clarify
2 sort of what these kinds of issues have created for the
3 program and the challenges for it, and so I do want to leave
4 that until later.

5 CHAIRPERSON DOUGLAS: Well, please do work with
6 staff. We will take Mr. Herrera up on his offer to clear up
7 grammatical errors, words that need to be capitalized and so
8 on.

9 MR. NESBITT: Okay, thank you.

10 CHAIRPERSON DOUGLAS: Very well. Any additional
11 questions or comments from the Commissioners?

12 COMMISSIONER BYRON: Is there any additional public
13 comment?

14 CHAIRPERSON DOUGLAS: Oh, Commissioner Byron, thank
15 you very much. We have public comment from Lucy Bosworth, who
16 is on the phone. Ms. Bosworth?

17 MS. BOSWORTH: Yes. Good morning, Commissioners.
18 My name is Lucy --

19 CHAIRPERSON DOUGLAS: Excuse me one moment. Can we
20 get the volume turned up? Is there a way to do that? Go
21 ahead and start talking, but please speak up.

22 MS. BOSWORTH: Okay. Good morning, Commissioners.
23 My name is Lucy Bosworth. I have been involved in the solar
24 industry back when the CEC ran the entire program under the
25 Renewables Program before, and I have seen the NSHP go under a

1 lot of changes, but this one, where the sizing is going to be
2 restricted to at least 7.5 kilowatts, I think is ill-advised
3 here in San Diego, and the reason I am saying that is because
4 we do not have a lot of custom homes that are being built out
5 here. So permits that are being pulled are for homes that
6 were not in the last two fires here, and the first fire that
7 took place five years ago, those homeowners have not built
8 their homes yet because they got lower payouts from their
9 insurance companies. The homes that are being built right now
10 are the homes from two years ago, from the fire two years ago,
11 where the homeowners got more of an incentive from their
12 insurance companies, so they are able to build their homes
13 bigger and apply solar to them. And, I mean, if you are going
14 to put a size restriction, do not put it at 7.5, put it at
15 least 15 or 20 kilowatts because some of these people will not
16 buy a solar system if they cannot get something big enough to
17 cover their solar needs, or their electrical needs, since
18 SDG&E just implemented another 4 percent raise, you know, on
19 their rates. And solar needs are going to just keep going up
20 and the rates of electricity are going to be going up. So I
21 implore you, please, do not put a 7.5 kilowatt limit on these
22 new homes because no one will decide to buy solar at that
23 point. They at least need a 15-20 minimum size here in San
24 Diego. Thank you.

25 MR. HERRERA: Chairman Douglas, if I could respond

1 to that point. I think Ms. Bosworth might be confused on the
2 changes that we are proposing. By law, a solar energy system
3 can be no small than the 1 kilowatt and no bigger than 1
4 megawatt in the Guidelines, and the Energy Commission's
5 Guidelines for the New Solar Home Partnership Program are
6 consistent with that. We also impose a requirement -- I
7 should say the Commission -- that the system be sized to
8 offset the consumer's on-site load. And if it reaches a
9 certain size, or we are up to a certain size, we assume that
10 that system will in fact do that. Right now, that is 5 kW,
11 but we are actually pushing that up. So if you install a
12 system that is 5 kW or smaller in size, you do not have to
13 demonstrate that you have onsite loads sufficient for the
14 amount of power being generated. If you go above 5 kW, then
15 you have to demonstrate by providing utility statements or
16 other documentation that show you, in fact, have an onsite
17 loan greater than 5 kW. We are pushing that 5 kW up to 7.5 kW
18 in this set of revisions. So in Ms. Bosworth's case, she can
19 still apply for funding for a larger system, but to the extent
20 it exceeds the 7.5 kW, she would need to demonstrate that she
21 had on-site loads sufficient for that system.

22 MS. BOSWORTH: Excuse me here, so as long as they
23 have a Title 24 for a brand new home that states that, yes,
24 they will need a 15 kilowatt system, their incentive will pay
25 up to that 15 kilowatt system? And they will not just be paid

1 on half of it, the 7.5?

2 COMMISSIONER BYRON: Ms. Bosworth, the experts are
3 conferring.

4 MR. HERRERA: I think Tony Goncalves needs to
5 clarify my comments because I think I might have misread these
6 changes.

7 MR. GONCALVES: I think what Gabe said was accurate
8 to a certain point, but we are limiting the rebates to the
9 first 7.5 kilowatts of the system, we are not limiting the
10 size of the system, it can still be in the 1 kilowatt up to
11 the 1 megawatt size limitation, but we are only -- we are
12 limiting the incentives to only the first 7.5 of kilowatts.

13 CHAIRPERSON DOUGLAS: And as I understand it, Mr.
14 Goncalves, is in part the rationale for that is to ensure that
15 the incentives expand to more housing and are not necessarily
16 used up as quickly. Are there other rationales that staff has
17 gone through --

18 MR. HERRERA: That is one of the primary rationales,
19 the other one is that the majority -- the overwhelming
20 majority of systems that have come in to the New Solar Homes
21 Partnership fall within the 7.5 kilowatt limitation. We have
22 a very small percentage that exceeds that amount.

23 CHAIRPERSON DOUGLAS: That is right and that is
24 because that majority of homes tend to be the production
25 homes.

1 MR. HERRERA: That is correct.

2 MR. GONCALVES: Right.

3 COMMISSIONER EGGERT: What is about an average size
4 system for these?

5 MR. GONCALVES: I believe the average size systems
6 on the NSHP is 2 kilowatts.

7 COMMISSIONER EGGERT: A 2 kilowatt system?

8 MR. GONCALVES: Yes. I do understand in the PUC's
9 -- the CSI for existing homes -- that the size is a little bit
10 larger.

11 COMMISSIONER EGGERT: Is it possible that having a
12 limitation would also encourage additional efficiency
13 activities in larger homes? Is that --

14 COMMISSIONER WEISENMILLER: Yeah, I would think it
15 would. I have seen some of the houses people have done on
16 sort of the marginal cost and marginal benefits of larger
17 solar systems, and, you know, again, you get the question,
18 what is larger? But certainly at some point it has got to be
19 much more economical to invest in energy efficiency to reduce
20 the load than to add additional solar system capacity. Now, I
21 gather, as you go through that trade-off, you know, but again,
22 that is sort of marginal analysis. I think you could question
23 how far to go, but above 7.5, it strikes me that there have to
24 be other things you could do to push the load down more cost-
25 effectively. And I think we certainly need to make sure that

1 the limited pot of funds we have is sort of widely disbursed,
2 and particularly by doing some sort of coherent sizing, you
3 certainly get larger disbursements there, and presumably also can
4 capture some of the smaller loads, smaller houses, again, as
5 the Chair had indicated, not having all the money absorbed by
6 very large houses with very large loads.

7 CHAIRPERSON DOUGLAS: I think the discussion and the
8 question that triggered the discussion is exactly on point and
9 the question before us, the size limitation certainly could
10 discourage some of the very large installations; on the other
11 hand, as Commissioner Weisenmiller points out, it does not
12 necessarily because, at the 7.5 level, it is still quite a
13 large system, it is over the average size, and efficiency
14 measures may well be a very effective way, and cost-effective
15 way of helping bring that house quite far down in its
16 electricity use.

17 COMMISSIONER WEISENMILLER: Exactly. And, in
18 addition, at that size, if they are really looking for the
19 ultimate, maybe the other thing to consider would be
20 batteries, not just the scale, but the duration they are
21 trying to capture.

22 VICE CHAIR BOYD: Is there a crude correlation
23 between house square footage and kilowatts of a rooftop
24 system? If the average is 2, and we are talking about 7.5, it
25 sounds like it is fairly significant piece of property.

1 MR. GONCALVES: Yeah, there are also limitations
2 based on actual roof space. And I do not know those numbers
3 right off hand. I can get that for you.

4 VICE CHAIR BOYD: Thank you.

5 CHAIRMAN DOUGLAS: Other questions or comments on
6 this issue?

7 VICE CHAIR BOYD: Well, I would just move to approve
8 the item before us with the added proviso that the staff is
9 authorized to make those grammatical changes that Mr. Herrera
10 acknowledged, and that would be the motion for approval and
11 that the staff work with the parties in the future. I hear, I
12 think, a voice on the phone --

13 CHAIRPERSON DOUGLAS: I think the person doing
14 public comment, Ms. Bosworth, do you have another comment or
15 another point that you would like to make? Ms. Bosworth?

16 MS. BOSWORTH: Yes?

17 CHAIRPERSON DOUGLAS: Did you have another point
18 that you would like to make?

19 MS. BOSWORTH: Yes, I do. In the handbook, not just
20 in the CSI handbook but also in the NSHP Handbook, it states
21 that you are to do a sizing system for the square footage of
22 your home, so basically what it is saying is that if you have
23 a 3,000-square-foot home, then you can get a 6,000 kilowatt
24 system and where Mr. Goncalves is getting that the typical
25 system is only 2.2, that cannot be true if they are going by

1 the actual square footage of the home to the size of the
2 system, that it would take to cover the electrical needs of
3 that home. So, you know, if you put the size limit that the
4 incentive is going to be paid out at 7.5, and the homeowner
5 decides, okay, I am only going to do a 7.5 system, but if it
6 does not cover my electrical needs, I am going to have to get
7 a bigger system, even though the home is already energy
8 efficiency, then they are going to have to go through the CSI
9 Program to get another system added on, or a bigger system,
10 which is going to improve -- cost them more money instead of
11 them just adding that system, the original size that they
12 wanted, onto their home. Do you understand what I am getting
13 at?

14 CHAIRPERSON DOUGLAS: Does staff want to comment on
15 that?

16 MR. GONCALVES: The one thing I can comment is on
17 the size. The average size that I quoted was based on actual
18 systems that have been submitted into the New Solar Homes
19 Partnership, and based on that, the average system has been
20 around 2 kilowatts.

21 CHAIRPERSON DOUGLAS: Thank you.

22 MR. SAXTON: I am Patrick Saxton with the High
23 Performance Buildings Office. I am not aware of anywhere in
24 the NSAP Guidebook or the SP-1 Guidelines that refers to the
25 PV system size in relation to the square footage of the house.

1 The average home in California uses about 7,000 kilowatt hours
2 a year. The average PV system well oriented, of course,
3 depending on climate, can produce about 1,500 kilowatt hours a
4 year, so a 7.5 kW system will produce over 150 percent of
5 average, so we are talking very large houses here with very
6 large electrical loads, and as was stated previously, a very
7 small percentage of homes that have been submitted to the
8 program so far, well under 5 percent of the homes. So it
9 certainly could have an effect on the custom home market, but
10 there is no restriction on what a homeowner may choose to do,
11 just that only the first 7.5 kW of the system would receive
12 monetary incentive.

13 COMMISSIONER BYRON: That is correct. I think that
14 is the real issue here. There is nothing that restricts, as I
15 understand it, the size of what the individual wishes to
16 invest in. Ms. Bosworth, I think it is the determination on
17 the part of the staff that we need to spread these funds as
18 liberally as we can to make sure they are applied, not just
19 at, shall we say, large high energy use homes. Thank you for
20 your comment, however.

21 CHAIRPERSON DOUGLAS: We have a motion by
22 Commissioner Boyd. Is there a second?

23 COMMISSIONER BYRON: Madam Chair, if I could, I
24 would like to second it, however, I am just wondering, it is a
25 minor item, but I think it has to be discussed, and that is

1 that the title sheet seems to also be out of date for this
2 report given that we have two new Commissioners. So I only
3 bring it up if indeed it needs to be included in the motion.

4 VICE CHAIR BOYD: They tried to slide that into
5 minor edits.

6 MS. JONES: We will include those in the grammatical
7 changes, yes.

8 COMMISSIONER BYRON: Okay, thank you very much.
9 That is sufficient for me. I second the motion.

10 CHAIRPERSON DOUGLAS: Thank you, Commissioner Byron,
11 and I think this just shows how long we have been working on
12 this report and how pleased many of us will be to have it
13 finalized. We have a motion and a second. All in favor?

14 (Ayes.)

15 The item is approved.

16 MR. GONCALVES: Thank you.

17 MR. HERRERA: Thanks.

18 CHAIRPERSON DOUGLAS: Item 18. Waste Heat and
19 Carbon Emission Reduction Act Guidelines. Possible adoption
20 of combined heat and power systems guidelines under the Waste
21 Heat and Carbon Emission Reduction Act. Mr. Rhyne.

22 MR. RHYNE: Good morning, Commissioners. My name is
23 Ivin Rhyne. I am the Manager of the Electricity Analysis
24 Office at the California Energy Commission, and I am here to
25 recommend adoption of the Committee Final Guidelines for

1 certification of combined heat and power facilities under
2 Assembly Bill 1613. These Guidelines are the direct result of
3 the hard work and dedication of our staff, specifically Linda
4 Kelly and Art Soinsky, who really worked tirelessly to ensure
5 that these Guidelines are both complete and effective. The
6 Act specifically encourages new combined heat and power, also
7 known as co-generation or CHP, and requires the California
8 Public Utilities Commission and the Energy Commission to
9 establish polices and procedures for the purchase of
10 electricity from new CHP systems that are 20 megawatts or
11 less. The Energy Commission is required to adopt guidelines
12 setting forth technical requirements that CHP systems must
13 meet to qualify for the incentive program developed pursuant
14 to the Act. These facilities must be interconnected to the
15 electrical grid, sized to meet the customer's on-site thermal
16 load, and operate continuously in a manner that optimizes the
17 efficient use of waste heat. The Guidelines will apply to
18 qualifying CHP systems covered in both investor-owned utility
19 and publicly-owned utility programs.

20 The proposed guidelines are composed of three major
21 parts. The first component is a minimum performance standard
22 consisting of a 62 percent fuel to useful output energy
23 conversion efficiency, a nitrous oxide or NO_x limit of .07
24 pounds per megawatt hour, and conformance with the
25 Environmental Performance Standard of SB 1368. The second

1 major component, the Application for Certification consists of
2 the filing of a set of standardized forms with attachments
3 that demonstrate that the proposed CHP system, as it is
4 predicted to operate over a 12-month period of time, will meet
5 or exceed all of the performance requirements. The third
6 major component, the Annual Report of Operation, consists of a
7 standardized set of forms with attachments and a signed
8 Declaration and Performance, which demonstrates that the CHP
9 system actually met or exceeded the required performance
10 levels. The Annual Report is subject to review and audit.
11 Any failure of the CHP system to conform to the Guidelines is
12 a basis for loss of certification by the Executive Director.
13 With the three major components taken together, the Guidelines
14 satisfy the intent of AB 1613 with respect to advancing the
15 efficiency of natural gas use, reducing the wasteful
16 consumption of energy, and facilitating the installation of
17 CHP systems that are environmentally beneficial.

18 Three changes have been made between the staff draft
19 and the Committee recommended Guidelines. First, the minimum
20 energy efficiency level has been increased from 60 percent to
21 62 percent. This is consistent with the language of the Act
22 which sets 60 percent as a minimum, but not maximum efficiency
23 level. Second, in response to comments from stakeholders, the
24 same efficiency standard has been applied to both topping
25 cycles and bottoming cycles that use supplementary firing.

1 And, third, a fuel savings standard has been removed because
2 the Committee directed staff to simplify the Guidelines. The
3 fuel savings standards becomes, therefore, redundant with the
4 energy efficiency standards.

5 Recent comments on the proposed Guidelines largely
6 repeat those submitted earlier. These objections have been
7 addressed in the Initial Statement of Reasons Report and will
8 be further addressed in a Final Statement of Reasons Report.
9 Staff took note of comments related to the 62 percent energy
10 efficiency standard and the greenhouse gas emissions from CHP
11 systems compared to the separate generation of electricity and
12 the on-site provision of thermal energy. This 62 percent
13 energy efficiency standard is economically and technologically
14 achievable, based on a CHP market penetration report prepared
15 by ICF International, and is above the 60 percent efficiency
16 standard in state law. The 62 percent efficiency standard
17 strikes a balance between greenhouse gas savings per installed
18 megawatt, and the number of CHP systems that need to be
19 installed to meet the greenhouse gas mitigation goals in the
20 AB 32 Scoping Plan.

21 Finally, I would like to close by saying that these
22 Guidelines are ready for adoption. Every directive of AB 1613
23 has been addressed in the Guidelines themselves, and the
24 Statement of Reasons. The Guidelines performance
25 requirements, the application process for CHP system

1 certification, and the requirements on annual monitoring and
2 reporting, assure that the objectives of AB 1613 are achieved.
3 Therefore, staff recommends adoption of the Committee Final
4 Guidelines. Thank you.

5 CHAIRPERSON DOUGLAS: Thank you, Mr. Rhyne. We have
6 a number of people who would like to speak to this item. I
7 will take them in the order that I received them, beginning
8 with Manuel Alvarez from Southern California Edison.

9 MR. ALVAREZ: Good morning, Commissioners. First of
10 all, let me thank the staff and the Committee for their hard
11 work, and we appreciate their effort. We did, in fact, file a
12 series of comments during the course of this event, which were
13 considered by the Committee and the staff, and I have to
14 acknowledge Dr. Soinsky's work over the years and appreciate
15 his efforts. What I would like to do today is kind of raise
16 an issue that we feel still needs to be addressed and that is
17 the fuel savings component that was removed from the staff's
18 proposal back in November. We believe that should still be in
19 as part of the exercise, that the staff needs to spend some
20 time, the Commission needs to spend the time on what that fuel
21 savings is. We understand and we heard today the notion of
22 this redundancy between the energy efficiency number and the
23 fuel savings estimate that was in the Staff Report. I am not
24 sure I understand that redundancy comment, but I think it is
25 something that needs to be addressed at the Commission level.

1 I guess what I would like to do is get some guidance from the
2 Commission of whether that fuel savings is something that we
3 can take up later as part of an amendment process, or of a
4 revision process, as these guidelines move forward, or not.
5 We think it is a critical item to be part of the Guidelines.

6 COMMISSIONER BYRON: Dr. Soinsky -- or what does he
7 mean? What is he talking about? Is this the double-benchmark
8 that we are discussing?

9 DR. SOINSKY: I believe it is the double-benchmark
10 and the wedge that occurs between a benchmark -- a double-
11 benchmark based on assumptions of what the separate provision
12 of electricity and heat, or hot water would be, and what you
13 would get from 62 percent.

14 COMMISSIONER BYRON: Yeah, I just asked for
15 clarification of all of us here because, Mr. Alvarez, I did
16 not understand what you meant, so you are talking essentially
17 about whether or not we would take up the double-benchmark
18 notion again. Is that correct?

19 MR. ALVAREZ: Yes.

20 VICE CHAIR BOYD: You do not see that as a fatal
21 flaw, such that you would request the whole product not go out
22 the door until it is addressed?

23 MR. ALVAREZ: You now, we wrestled with that
24 particular activity and that particular question, and we have
25 decided not to request that you prevent the Guidelines from

1 moving forward, just that you agree to take it up at some
2 subsequent date and we could actually revisit that. The
3 discussion of the 62 percent efficiency component, we actually
4 advocated in the proceeding that we wanted a higher value for
5 that, and even though we provided information to the staff in
6 terms of the range of efficiency components that we have on
7 our system, the 62 percent, we have on average higher
8 efficiency than that existing, so that number could actually
9 be increased also. So I am not sure if that answers your
10 question. I think we are comfortable where we are at, but
11 there is still some work to be done.

12 VICE CHAIR BOYD: Okay, it does answer the question.
13 But let me ask, you say you achieved higher numbers, but I
14 will ask the staff, maybe, you know, what is the statewide
15 fleet number that we are dealing with here?

16 DR. SOINSKY: I am sorry, what is the statewide --
17 well, it depends, it is sort of how you use statistics on the
18 existing fleet, and then how do you use that information in
19 setting a new benchmark. The average of systems connected to
20 the SCE System is higher than 62 percent, but the median is
21 below 61 percent, so how do you play the games with what you
22 have got and can achieve. The 62 percent number was developed
23 based -- or was set -- to an extent on a study done by ICF
24 International, the Market Penetration of CHP. And it looked
25 at, given payback periods of four years, what amount of

1 penetration would you get in terms of CHP and what would be
2 their characteristics. And if you couple that to the
3 requirements in the law that systems be technologically
4 feasible, cost-effective, and environmentally beneficial,
5 those characteristics apply to the systems that ICF predicted
6 would penetrate. And so that number was at 62 percent, so
7 that is where that number was chosen. Now, one of the things,
8 certainly, that we would hope to obtain from the
9 implementation of this program and the performance reporting
10 requirements is a really defensible database of how systems
11 actually perform to inform revisions, or to inform policy in
12 the future with respect to achieving AB 32 goals and the
13 objectives of AB 1613 in terms of CHP penetration. So I think
14 one of the major reasons for embedding the reporting
15 requirements is to finally have a statewide database of new
16 CHP that is exporting electricity to the Grid.

17 VICE CHAIR BOYD: Thank you.

18 CHAIRPERSON DOUGLAS: I have a quick question. Mr.
19 Alvarez, when you said you wanted us to adopt a number that
20 required more efficiency than the 62 percent, do you recall --
21 or did Edison make a specific recommendation?

22 MR. ALVAREZ: Actually, I do not recall that number,
23 but I thought we were talking around 70 percent? Seventy-
24 five.

25 CHAIRPERSON DOUGLAS: That is helpful. Thank you

1 for your comments. The next blue card I have is from Dr.
2 Barbara Barkovich.

3 DR. BARKOVICH: Thank you, Commissioners. I am
4 happy to see my old school mate sitting up with you now. Dr.
5 Weisenmiller and I go back a long way to the Energy and
6 Resources Program at Berkeley. I am here today representing
7 the cement industry, which is interested in the application of
8 bottoming cycle CHP, which is the technology that usually gets
9 forgotten about when people talk about CHP. The industry is
10 interested in it for two reasons, one is it would enable them
11 to engage in some GHG mitigation, which is a very important
12 consideration for the cement industry, and it would also allow
13 them to have some possible control over what are ever-
14 increasing electricity costs, and the industry is very
15 electricity intensive. While the industry intends for its CHP
16 to be used on-site, it is concerned that the Guidelines that
17 are being developed here could be used for other purposes, for
18 example, we are still waiting to see what the Air Resources
19 Board will come up with in terms of its CHP promulgation
20 policy. So what is done at this Commission is, in fact, very
21 important.

22 The statute specifies a 60 percent electrical
23 efficiency. You have heard that. The staff has recommended a
24 change to 62 percent. Edison has talked about 70 percent.
25 Sixty percent is already substantially more efficient than a

1 combined cycle power plant; we have to keep that in mind, as
2 far as electrical efficiency goes. A 7,000 heat rate plant
3 does not even have 50 percent efficiency. So what we are
4 talking about is trying to push the limits for CHP well beyond
5 what is expected of the electric generation sector. And I
6 think the concern on behalf of the cement industry is that
7 increasing the efficiency basically would result in less
8 electrical output from supplemental firing, supplemental
9 firing will have to meet the EPS and all the other
10 requirements, and that will make the projects less cost-
11 effective and less likely to be implemented. And under those
12 circumstances, part of their GHG mitigation strategy is being
13 undermined, and I think potentially part of the ARB's
14 mitigation strategy could be undermined. So I want to point
15 out the fact that the 60 percent number is not a trivial
16 number and that, at least for bottoming cycle applications, we
17 have done calculations that will reduce the feasible amount of
18 output. Thank you very much for allowing me to comment.

19 CHAIRPERSON DOUGLAS: Thank you for your comments.
20 Mark Krause, PG&E.

21 COMMISSIONER BYRON: Mark, before you come up, Dr.
22 Soinsky, could you address this comment with regard to the 62
23 versus 60 percent.

24 DR. SOINSKY: As stated in the Statement of Reasons
25 Report, we had the ICF Report to inform topping cycles, we did

1 not have anything to inform what a reasonable level or
2 achievable level is on bottoming cycles. So there were -- I
3 guess you could say -- two different paths that could have
4 been taken, either 62 percent for everybody, or 62 for topping
5 and 60 for bottoming. And you know, the decision was made to
6 go with 62 percent for all. I mean, Ms. Barkovich's comments
7 are very well taken with respect to the value of bottoming
8 cycles and the fundamental difference between bottoming cycles
9 and topping cycles. She has educated me a number of times on
10 this issue, and I certainly agree with her comments about how
11 valuable bottoming cycles can be in using waste heat and
12 actually achieving the goals. And I certainly would agree
13 with her point, which I had not really thought about before
14 that, a bottoming cycle producing 60 percent or 62 percent is
15 better than the very best natural gas combined cycle that you
16 would find on a utility system.

17 COMMISSIONER BYRON: Right.

18 DR. SOINSKY: I guess I did not directly answer your
19 question, but it is one of these issues I have struggled with
20 and stakeholders have struggled with --

21 COMMISSIONER BYRON: I have as well. And as Dr.
22 Barkovich -- and she has educated me a great deal, as well.
23 Madam Chair, I am sorry for the interruption.

24 CHAIRPERSON DOUGLAS: Commissioner Weisenmiller.

25 COMMISSIONER WEISENMILLER: I think you can see the

1 influence of John Holdren on Barbara in terms of how to do an
2 analysis of these issues. Certainly, I think it is very
3 important that we focus on some of the larger -- you know, the
4 cement industry is a key part of California, and it is
5 certainly undisturbable now, and if we can do something that
6 moves them to more efficient production of cement and help
7 keep them in California, that would be very good. At least, I
8 know when I met with PG&E, PG&E had no real comments of
9 bottoming cycle, per se, the focus was all on topping cycle.

10 COMMISSIONER BYRON: Of course.

11 COMMISSIONER WEISENMILLER: So I think certainly the
12 notion of making that adjustment to 60 would be something
13 that, when we get to that point, I would be suggesting people
14 consider.

15 CHAIRPERSON DOUGLAS: Other comments or questions?

16 COMMISSIONER EGGERT: I have some, but I was going
17 to wait until -- is there still additional --

18 COMMISSIONER BYRON: There will be plenty of time.
19 I apologize, Madam Chair, I was looking for a response while
20 we had Dr. Barkovich's comment in mind.

21 CHAIRPERSON DOUGLAS: Absolutely. We will go on,
22 then, to Mark Krause, PG&E.

23 MR. KRAUSE: Thank you, Madam Chair. My name is
24 Mark Krausse, with Pacific Gas & Electric. Like Manuel, I
25 want to thank the staff. They have done an excellent job,

1 all, and it is a very complex subject that, all I can tell you
2 about bottoming cycle, because we have not focused on it, was
3 the supplemental firing is where I think the efficiency comes
4 into question, but absolutely, as I have spoken with each of
5 you, our focus is on topping cycle applications. We support
6 the standard today and Commissioner Boyd's question, you know,
7 we probably would prefer not to see it go out, but we
8 understand there has been a lot of work done on this, maybe
9 taking it in two pieces is appropriate. We do urge you and
10 understood sort of from the Statement of Reasons in terms of
11 how this has evolved from a staff draft to here and when we
12 refer to it as a fuel savings standard, because that is what
13 that document referred to it as, but internally, in the
14 utilities, at least PG&E and Edison, we call it the double-
15 benchmark. We see that double-benchmark as identifying,
16 again, the carbon neutral curve. And the problem, I think Dr.
17 Soinsky alluded to was the wedge, there is a wedge where the
18 double-benchmark curve crosses over and you actually have GHG
19 increases; at a 62 percent or greater efficiency, you can go
20 upwards of, depending on how much your boiler is working --
21 anyway, I do not want to go into the specifics that I do not
22 fully understand, but we have, as you know, charts on all of
23 this. What we would urge is that the Commission come back in
24 a subsequent action and look at considering the staff's
25 previous proposal about a fuel savings standard, double-

1 benchmark, whatever you would like to call it, but also the
2 overall objective is A.B. 32 and GHG reduction, so not just
3 the carbon neutral curve, but some portion over that. And in
4 those proceedings, we would be glad to try -- we have had
5 consultants come in and show us that the technology is there,
6 this is not theoretical, but these applications could actually
7 be built. We are not trying to build a standard that is too
8 high to achieve. So that is our focus. I mean, 6.7 million
9 metric tons in the Scoping Plan equates to -- and this is
10 simply if you back it out based on 4,000 megawatts -- it
11 equates to a 73 percent, I believe -- I know north of 70 -- I
12 think it is 73 percent efficiency. So the 62 percent -- you
13 cannot express this as efficiency alone, I think that is the
14 message to be taken. And that is why I was, like many, a
15 little troubled by the word "redundant," it is not redundant,
16 you have to have other metrics to ensure GHG reduction. And
17 that is all -- I think Dr. Barkovich and PG&E, we all agree
18 that the objective is GHG reduction.

19 COMMISSIONER BYRON: Mr. Krausse, I was confused by
20 one of your last statements. Are you suggesting, for
21 instance, that if the ARB had determined that we needed 7
22 million metric tons of reduction of GHG from this sector, that
23 we should be pursuing an efficiency of, say, 80 percent for
24 CHP?

25 MR. KRAUSSE: By no means. I think what I am trying

1 to emphasize is, this will be a driver, the chapter on this
2 particular legislation included greenhouse gas reduction.
3 Just, as you are adopting this, I do not think you need to
4 conform to AB 32, we have always argued that that was an
5 unrealistic goal, but one of the things we can document for
6 you is, at various efficiency rates and double-benchmarks,
7 what the tonnage reduction would be expected at given megawatt
8 hours -- not megawatt hours, but megawatt installments. So I
9 think that has to be a consideration here, that we want to
10 arrive as close to that goal as possible. It should not be
11 what dictates exactly the number. But we do not get -- as I
12 say, with the 62 percent alone, you could have overall GHG
13 increases.

14 COMMISSIONER BYRON: Even though 62 percent
15 efficiency, as pointed out by Dr. Barkovich, is greater than
16 the most efficient combined cycle power plant that you would
17 put on the system today?

18 MR. KRAUSSE: But you have to remember that what we
19 characterize as a -- this is compared to -- combined heat and
20 power is compared to separate heat and power, which would be a
21 boiler application and the electric generation component. So
22 it is that blended efficiency that you are trying to achieve
23 to ensure GHG reductions. You do not look at either component
24 in the absence of the other.

25 COMMISSIONER BYRON: Is that a yes or a no?

1 MR. KRAUSSE: I disagree with the premise that you
2 need to build a standard that mirrors the combined cycle unit
3 because it is a combination of combined cycle and perhaps Dr.
4 Weisenmiller can help us.

5 COMMISSIONER WEISENMILLER: I was going to hold
6 this, but I guess at this point just to try to help clarify
7 things a little bit, first for contacts, I should say,
8 obviously, I testified decades ago on a lot of -- on the co-
9 generation issues, once for the Energy Commission, or twice
10 for the Energy Commission, and John Bles remembers, he was
11 only 26, and a lot of the PUC proceedings setting as fact, but
12 I have not done that since the early '90's and I have also
13 worked a lot with the banks on due diligence on the projects,
14 so they were certainly pretty comfortable that I had moved
15 from an advocate to more of an evaluator, and most recently I
16 worked with the Bankruptcy Court on Calpine to help them
17 evaluate power markets and gas markets. So, again, I want to
18 speak more as what is reasonable here as opposed to a co-
19 generation advocate. But I think the thing we are struggling
20 with is that, as you know, the value of co-generation power in
21 the system is very very complicated, people spent years and
22 years and years and years fighting over that. And, you know,
23 while I respect what Ray did on his analysis, he was looking
24 at basically the first kilowatt hour of co-gen, what the value
25 of that would be on the system. And, so, if this program is

1 only resulting in a single kilowatt hour, it is not a bad
2 evaluation, but if it is, then this is failure in a way, and
3 certainly all the good efforts Commissioner Byron and
4 Blakeslee on this will be a disappointment. In fact, one is
5 hoping for a larger amount. And so, if we are looking at,
6 say, 500 megawatts, then it has bigger effects on the system
7 than the system measures, it picks up start-up and no-load
8 costs. And those are significant. Now, this battle between
9 that last increment and, you know, if you recall, we are
10 talking about more -- the co-gen perspective has been going on
11 for decades and, you know, I think quoting Mike Peevey, who
12 brings a lot of -- President Peevey brings a lot of wisdom to
13 these issues, he views this whole thing as Afghanistan -- his
14 Afghanistan, you know, the people have been fighting for
15 decades in a very, almost fanatical fashion, and so we do not
16 want to get involved, you know, as I understand PG&E's
17 position, it is pretty much your litigation position in the
18 SRAC negotiations. I assume -- if Evelyn Kahl talks, she will
19 give pretty much her litigation position in those
20 negotiations. We do not want to get in the middle of those
21 negotiations. We feel like the UN Peacekeepers arriving in
22 Afghanistan, suddenly being fired out by all sides. So what
23 we like to do is have this simple program, but not have
24 something which has any connection to those negotiations.
25 Certainly do those negotiations, come up with the solution,

1 maybe we can consider that at some point because we are very
2 very concerned on the greenhouse gas implications, but we also
3 do not want this program to just stall while -- I do not know
4 of Peevey can get a settlement soon, or how long it takes, but
5 we do not want to hold up this program, I think, waiting for
6 the PUC to resolve those issues, and people to feel that
7 somehow their position in this case does not affect their
8 litigation position in a case which has much much bigger
9 stakes. So anyway, I think that is the intent here of the
10 Commission committee, was to come up with a simple approach,
11 did not get us mired into everything, but I think the nature
12 of these issues are somehow you get dragged into them no
13 matter what.

14 CHAIRPERSON DOUGLAS: Additional -- oh, Commissioner
15 Eggert.

16 COMMISSIONER EGGERT: Well, I guess maybe I will
17 jump in here. I guess a couple of quick comments and,
18 actually, first a question. As I understand it, there is an
19 evaluation that is to be done which includes the ARB some time
20 next year. Is that correct? What is the timing of that?

21 DR. SOINSKY: It is December 31, 2011.

22 COMMISSIONER EGGERT: 2011. That is intended to
23 look at specifically the greenhouse gas benefits?

24 MR. RHYNE: That is correct.

25 COMMISSIONER EGGERT: Okay, I think, you know, my

1 thoughts on this, I do not think we are necessarily pursuing
2 CHP as a goal unto itself, I think, you know, we do definitely
3 want to see benefits that are going to accrue to the system.
4 And given the importance to the state of AB 32 and some of the
5 expectations that have been set out for this technology on the
6 order of 6.7 million metric tons, which I have come to
7 understand is a rather ambitious goal, but perhaps one
8 pursuing, I think it is important that we really do think hard
9 about how we are going to maximize the benefits, the GHG
10 benefits, from this program. I think I understand some of the
11 technical arguments that have been provided, especially for
12 systems that might be at lower power to heat ratios, in
13 particular. But I also very much appreciated the information
14 I received from staff about a lot of the thinking that went
15 into sort of establishing this particular benchmark at the 62
16 percent, and so I guess I know we are not at the motion point,
17 but I definitely want to just suggest that, going forward as
18 we do the evaluation of the actual impact of this program,
19 that we do pay particular attention to the GHG benefits from
20 installed projects. And hopefully, if the technologies are
21 available to exceed the 62, that those are actually pursued
22 and that we are pushing up those percentages as high as are
23 technically feasible and economically practical. So I will
24 stop there and turn back to public comment.

25 CHAIRPERSON DOUGLAS: The next blue card -- oh, Mr.

1 Krausse.

2 MR. KRAUSSE: If I can just, in closing, your
3 Statement of Reasons identifies that there are additional data
4 points you are looking for, I think, a methodology that could
5 perhaps be used for quantifying several different GHG. And I
6 thought that is why this was being taken out was to queue up
7 that discussion. But I would just leave you with this, I
8 think the question, without regard to the double-benchmark, 62
9 versus some other percentage, is do you want to prefer,
10 through a state tariff, through an approved PUC tariff,
11 resources that actually increase GHG. It is that simple. I
12 mean, that really is the issue. And we do not think you would
13 want to do that, we would urge you to come back for another
14 look at this.

15 CHAIRPERSON DOUGLAS: Thank you. Next blue card is
16 Evelyn Kahl, counsel for the Energy Producers and Users
17 Coalition.

18 VICE CHAIR BOYD: Evelyn, you have been given the
19 pre-introduction already.

20 MS. KAHL: All right. Well, I do represent the EPUC
21 Energy Producers and Users Coalition, and they have very large
22 CHP in the oil refining and producing operations, so we come
23 from more of a large CHP standpoint. And we have been
24 tracking this proceeding from that standpoint, watching it
25 more as a question of what precedent gets set here, whereas

1 Commissioner Weisenmiller said that the stakes are much larger
2 in the large CHP area, so we did not want something done here
3 that would adversely impact us in the other area. Having said
4 that, I think --

5 COMMISSIONER BYRON: Ms. Kahl, sorry to interrupt,
6 just so I make sure we all understand, so you represent those
7 generators that are in excess of the 20 megawatt limits that
8 are in this legislation, is that correct?

9 MS. KAHL: Typically, these operations are between
10 the magic 49 number and up to 400 --

11 COMMISSIONER BYRON: Okay.

12 MS. KAHL: There are some under 20 megawatt
13 facilities in the producing fields and there is potential for
14 more of those, too, in oil production.

15 COMMISSIONER BYRON: Thank you. I am sorry for the
16 interruption.

17 MS. KAHL: That is okay. So coming from the
18 standpoint of a large CHP coalition, we generally support what
19 is before you today for consideration. We certainly
20 understand that you want to get this out quickly, and we
21 commend you for that, nothing moves quickly in California and
22 it is good that we are getting a program out. We also
23 understand that the staff has put in an incredible number of
24 hours and had many many headaches to get this done, and we
25 know they worked very hard on it. I guess our position is

1 maybe we worked too hard on it. From our standpoint, as Dr.
2 Barbara Barkovich said, the statute says 60 percent. And, you
3 know, I could quote the whole thing for you, which I am not
4 sure you would appreciate it, but the statute says that a CHP
5 system shall meet a minimum efficiency of 60 percent. And in
6 another area, it says that a CHP system that meets the 60
7 percent efficiency standard. In our view, this has always
8 been clear and we stated that, as early as April, that we
9 thought we should not even be getting into this debate about
10 efficiency standards. But recognizing that we have, you know,
11 we are in a different position now. Looking at it even apart
12 from a legal standpoint, let's look at it practically. I
13 know, within our group, we have CHP systems that may be below
14 62 percent, but when you look at them from a combined heat and
15 power standpoint, a double-benchmark standpoint, they perform
16 very well in reducing greenhouse gas. So 62 percent may or
17 may not be a very happy number for some of the existing and
18 some of the planned new projects. And whether or not 60
19 percent is the right number, I do not know, or even whether we
20 should be going towards a percentage. I think PG&E is right
21 -- and note that I said "PG&E is right," -- that is an unusual
22 thing. But when you take a 60 percent standard, or you take
23 any standard, you are necessarily including some facilities
24 that will not reduce greenhouse gas, and you are excluding
25 others that might, that do not meet the 60 percent, so it is

1 really not a perfect cut, and perhaps a better way to go about
2 it is a double-benchmark. But, again, that is not what the
3 statute said. It did not say that CHP should meet a standard
4 that the CEC sets; it said it should meet a 60 percent
5 standard. So I think the debate that you have had here is
6 very important, it is a very critical issue, what is the right
7 efficiency for a CHP program, large or small? But I guess our
8 view is it did not really belong in the context of AB 1613
9 because the statute was clear.

10 CHAIRPERSON DOUGLAS: Commissioners, I am going to
11 ask our Chief Counsel, after public comment, to address the
12 legal questions being raised. Are there policy questions from
13 Commissioners for Ms. Kahl?

14 COMMISSIONER BYRON: No, however, I do think it
15 would be helpful, given your specific comment, with regard to
16 your members, if Dr. Soinsky might address the kind of CHP in
17 this size range that we would expect to be built by customers,
18 where they would fall on this so-called double-benchmark
19 curve, etc. But I think that would be helpful to everyone.
20 Does that make sense?

21 DR. SOINSKY: Sure. Where this wedge occurs is at
22 low power to heat ratios where you have fairly little
23 electricity and a lot of thermal, and this is really the
24 operating domain, more of steam turbines than of microturbines
25 or fuel cells or gas turbines. So I was actually just

1 thinking about this, this morning, and it seems like it is
2 almost more of an issue when you get to bottoming cycles,
3 where you essentially do have a source of waste heat or free
4 fuel or essentially free thermal energy, and then you are
5 using a ranking cycle to generate electricity, and perhaps
6 extract some steam or heat from that in an extraction turbine.
7 So looking at technologically, it is not obvious to me that
8 most of the systems that you would see installed below 20
9 megawatts would actually fall within a power to heat ratio
10 that would be -- it would be included within the wedge. The
11 other consideration, I think, is that you need to look at a
12 couple different power to heat ratios, the power to heat ratio
13 of the facility without export, the power to heat ratio of the
14 CHP system and boiler systems, or whatever, that are
15 accommodating that, and then the power to heat ratio of a CHP
16 system that is exporting. The CHP system that is exporting is
17 going to have a larger power to heat ratio than either of the
18 other two, two instances I suggested, which is going to start
19 pushing systems outside of the wedge. So, you know, I
20 certainly think that, you know, you could say there is a
21 greenhouse gas risk represented by this wedge, but if you look
22 at the fact that risk is the product of probability and
23 consequence, the probability is small and the consequence is
24 small because you wind up moving not at the thickest part of
25 the wedge, which is a pure boiler, but you start moving more

1 toward the tip of the wedge, the center of the pie slice, if
2 you will. And when you take those two factors together, I
3 think the consequence is small. So I do not think it is a
4 non-trivial issue and, you know, if it is Chairman Peevey's
5 Afghanistan, it has probably been my Afghanistan also, trying
6 to deal with all of these issues. It is extremely difficult
7 because CHP is just so incredibly different one system from
8 another, and it is both the greenhouse gas emitter and a
9 greenhouse gas saver, so it is not a simple issue.

10 COMMISSIONER BYRON: Thank you for that thorough
11 explanation. I understood it and I hope it is helpful, but I
12 think this all does kind of get back to your comment. Ms.
13 Kahl, thank you for your comments, than you for being here
14 today in support of these guidelines. Do you recommend that
15 we put them out, or that we hold this up in order to get this
16 percentage correct?

17 MS. KAHL: Well, we are not recommending that you
18 hold it up. What we would like to see is, if you do move this
19 out at 62 percent, that you make very clear that this is
20 solely for the purpose of this particular application and that
21 it really should not have any precedential effect going
22 forward. And I guess my last note to you all is, we talk
23 about the wedge, and I think most of us know the wedge. And
24 the wedge that PG&E brings by shows the wedge to the left-hand
25 side of the graph where there is generation that meets the

1 standard, but from a greenhouse gas curve standpoint is not
2 beneficial. We talk about that left side, but we have not
3 talked about and what to me is even bigger and more important
4 is the right side wedge, those projects that may fall below
5 the 60 percent, but are still greenhouse gas beneficial, so we
6 cannot talk about the left side of the wedge without talking
7 about the right. And let's not forget about those, as well.

8 COMMISSIONER BYRON: Thank you.

9 MS. KAHL: Thank you.

10 COMMISSIONER BYRON: Wedge, fuel savings, double-
11 benchmark, these are all in the same category. Thank you.

12 CHAIRPERSON DOUGLAS: Thank you. Next blue card I
13 have is for an individual named Joseph -- I cannot read your
14 last name, representing self.

15 MR. STAGNER: Hi, thanks. Joseph Stagner is the
16 name. I am here today -- I am the Executive Director of
17 Sustainability in Energy Management for Stanford University,
18 but just to make sure I do not misspeak, I am here
19 representing myself. I did submit comments from Stanford,
20 basic information, but I feel today my comments may go beyond
21 just providing general scientific information to policy and so
22 forth, so that is why I want to make it clear I am
23 representing myself here. The comments I submitted December
24 16th, I do not know if you have had a chance to review them,
25 but there are some very simple sketches that go to some of the

1 issues here. First, I would like to start off saying,
2 contrary to the utilities and the previous speaker, I do
3 recommend you hold up these proceedings. These plants are
4 going to be installed, they are going to last 20 years or
5 longer, great, hard work has been done by Art and everybody
6 else on these, and rather than rush ahead with these, I do not
7 know what the fire is, why we have to get these out so fast.
8 Rather than come up with some standards that we are not quite
9 sure of and we would like to vet some more, why not hold them
10 off so the folks that might want to go put in a combined heat
11 and power are not misled and have false starts in trying to
12 do economic analysis and attempt the permit projects and stuff
13 under this, only a year later to say, "Oh, we kind of messed
14 up, the standard should really be X." Then you have kind of
15 pulled the rug out from their projects. And I think there is
16 a lot of good reasons to hold that up for everybody's benefit.
17 So the first somewhat techno comments like the point are I
18 agree with Southern California Edison's comments, I have read
19 them, and many of my comments are exactly the same, the first
20 being you cannot separate -- or you cannot directly compare
21 co-gen efficiency to a natural gas combined cycle. I think
22 Art and everybody here would admit that you have to look at
23 the combined thermal load and the combined electrical load,
24 and look at which one uses less overall gas. So, to say 60
25 percent, you know, our natural gas power plants can only get

1 48-54 now is kind of the state-of-the-art, and, you know, 60
2 is better, that is just not scientifically valid. It is what
3 that power plant with an 85 percent boiler would do compared
4 to the efficiency of a co-gen. So, in my figure 1, I pointed
5 out that you also have to look at the balance of heat and
6 power, and a lot of the previous comments about low power to
7 heat ratios are right on the mark. With low power to heat
8 ratios, the disparity between the 62 percent standard and what
9 is achievable by separate heat and power grows even more. In
10 my figure 1, I point out that if you have a balanced heat and
11 power load, 50 percent Btu's on each side, that today's state-
12 of-the-art natural gas power plant on the Grid, like the
13 Inland Empire facility in Southern California that was
14 permitted five years ago by this group, and an 85 percent
15 boiler, which the Statement of Reasons indicates is pretty
16 commonly available, if you have a choice in the state to put
17 in a 500 megawatt power plant at 54 percent efficiency and an
18 equivalent amount of thermal energy on-site at 85 percent, or
19 25 20 megawatt combined heat and power plants at 62 percent,
20 well, the former is going to have 6 percent less greenhouse
21 gas and 6 percent less energy use, that is straight
22 mathematics and science. I do not think anybody could refute
23 that. The only question would be, is the assumption that a
24 grid power plant at 54 percent is practical. Well, again, you
25 permitted one five years ago and, in the Statement of Reasons

1 for permitting that, it was noted that that plant is expected
2 to achieve that. And that is a very large plant in Southern
3 California Edison. I do not know what it has actually
4 achieved since it started up a couple years ago, but I am
5 guessing it is going to be somewhere in that range. And the
6 fact is, the efficiencies will grow from there, not decline.
7 If you look at the situation where you have a little bit more
8 thermal load versus power, the lower powered heat ratio, just
9 go 10 percent. If the balance of heat and power needs at a
10 site were 60 percent heat and 40 percent power, then, again,
11 the grid power plant and the on-site boiler would have 10
12 percent less greenhouse gasses. So, indeed, these regulations
13 could actually result in more greenhouse gasses. A lot of the
14 implication behind AB 32's initial statement that we want more
15 combined heat and power is on the assumption that any CHP you
16 put in will reduce greenhouse gas. Well, you really have to
17 compare site by site the balance of heat and power, and the
18 available equipment for separate heat and power and combined
19 heat and power available at that point in time to determine
20 that. I am sure the intent in AB 32 was to do that, and only
21 put in CHP if it actually helps the cause. You do not want to
22 put it in if it hurts it. So you ask yourself, will it hurt
23 the cause? Well, a lot of the implication is that, if you put
24 in, say, a 62 percent --

25 CHAIRPERSON DOUGLAS: Excuse me, let me just ask --

1 I appreciate your comments and they are helpful, but we
2 usually ask people to stick to about three minutes and I just
3 wanted to make sure that you had something like that road
4 mapped in your mind as you make your main points.

5 MR. STAGNER: I will go as fast as I can, sure, make
6 it through my points. So the presumption that if we put a 62
7 percent co-gen out there, that somehow it is going to displace
8 an equivalent 45 percent combination of heat and power off the
9 existing grid, that is the big part I do not understand. With
10 electricity growing in the state, if you put in 500 megawatts
11 of 62 percent co-gen, you have just reduced 500 megawatts on
12 the power grid that likely would have been met with a 50 to 54
13 percent grid gas-fired power plant. So you are not displacing
14 low efficiency power plants by putting in something that is
15 moderate at 62 percent, you are displacing what otherwise
16 would be built new. There is no causal effect in the
17 regulations that say, "All right, we will approve a 62 percent
18 power plant if you prove the de-commission of a 45 percent
19 one, and therefore we do have an incremental net gain." So
20 that is the big problem. And the next comment is, I think
21 this undermines renewable portfolio standard. For example, if
22 you had 1,500 megawatts of new power you wanted to put in the
23 state, under the RPS, you would put in two 500 megawatt high
24 efficiency gas turbines and 500 megawatts of renewables.
25 Right? Well, if you instead put in all co-gen for that, you

1 have now compounded the problem from 10 percent more
2 greenhouse gas to 25 percent more greenhouse gas. So there is
3 -- we need to have a discussion about how this affects the
4 renewable portfolio standard that would have one-third of new
5 power be a renewable, when under these statutes, all would be
6 fossil fuel. So I think there is some really big scientific
7 flaws in this and I would encourage you to take a little bit
8 more time because I do not -- while there has been great work
9 done, I do not know what the rush is to finalize these, just
10 for the sake of finalizing them. I do not know what big thing
11 is driving us not to have a little bit more debate on this and
12 get it right.

13 COMMISSIONER BYRON: If I may, I am a little
14 confused about your last comment about the RPS, the Renewable
15 Portfolio Standard. That is based upon retail sales by
16 utilities, so how does combined heat and power enter into your
17 calculations that that would increase greenhouse gasses?

18 MR. STAGNER: All right, so suppose there is 1,500
19 megawatts of new load coming on line in the state, how would
20 the utilities meet that load if we did not put in co-gen? You
21 know, end user co-gen? Well, they would put in a 1,000
22 megawatts of fossil, preferably high efficient, or the people
23 supplying them would because that is the economic thing to do,
24 and 500 megawatts of renewable. If instead you allow 1,500
25 megawatts of gas-fired co-gen to be put in, that will reduce

1 that demand that the utilities will never see, and you will
2 not get one-third of this new power being met with renewables,
3 It will all be met with fossil, and that is really going to
4 compound the greenhouse gas problem.

5 COMMISSIONER BYRON: Well, all you did was repeat
6 what you said earlier. It is based upon the retail sales that
7 utilities have, not the generation that they install.

8 MR. STAGNER: Right. But you would be taking the
9 sales that they would have had away if you promote fossil fuel
10 behind the fence, or not out of their portfolio, so you are
11 reducing the amount of load that would have been met by them,
12 one-third green, you are taking that away and replacing it
13 with end-use customer all fossil fuel generation.

14 COMMISSIONER BYRON: I do not believe so. I would be
15 more than happy to be corrected, but it has nothing to do with
16 the combined heat and power. The RPS is associated with
17 retail sales, so if they are selling less electrons or
18 kilowatt hours in a future year, still X percent has to be met
19 by renewables.

20 MR. STAGNER: Right, and if you move the portfolio
21 that is co-gen, fossil fuel, to the utilities, one-third will
22 be green. But if you do not have it in their portfolio, it
23 will not be green, it will all be fossil fuel, because the end
24 use customers are not subject to the RPS if they are self-
25 generating.

1 COMMISSIONER BYRON: Thank you.

2 MR. RHYNE: Commissioners, I would like to try and
3 address Mr. Stagner's comments if I can, if you are done, sir.

4 MR. STAGNER: Sure.

5 MR. RHYNE: Well, first of all, his first question
6 was why so fast. And the short answer to that is that AB 1613
7 set a deadline for this organization to form and adopt these
8 guidelines at deadline, it was actually December 31st of the
9 past year --

10 COMMISSIONER BYRON: Yes, so why so slow, right?

11 MR. RHYNE: So that is the short answer to that.
12 Second of all, we actually received and very carefully
13 considered Mr. Stagner's comments, and to his credit, he
14 provided a great deal of information, including some basic
15 mathematical assumptions that he used. Using those same
16 assumptions, we very carefully looked at under what
17 assumptions does the greenhouse gas kind of efficiency --
18 where is the neutral standard, and that actually is very
19 sensitive to assumptions. In fact, the power to heat ratio at
20 which the 62 percent efficiency standard breaks even can range
21 from as low as a .18 up to greater than .75, depending on the
22 range of assumptions you make, and all of which are well
23 within reasonable assumptions given the actual operations of
24 boilers and power plants that are out there in the state of
25 California. And so this was actually one of the driving

1 factors that I, in my opinion, might have pushed the committee
2 towards a simplified standard, because there was no way to
3 know at what point any of these would have broken even due to
4 the lack of otherwise good data about exporting CHP in the
5 state. And therefore a simplified standard guaranteed that,
6 at some point, we would be breaking even, and that under the
7 tariff and the export arrangements, that the new CHP
8 facilities implemented under AB 1613 would find it beneficial
9 to export power, and therefore would be driven towards
10 operating in ranges of power to heat ratios that are much
11 higher. The final point is, and Mr. Stagner raises this
12 question about the theoretical efficiency of previously
13 applied power plants; actually, we did look up the operational
14 efficiency of the power plant that he refers to, it operates
15 at an efficiency of less than 50 percent, that is, that has
16 much to do, I think, with how it is dispatched as it does with
17 the equipment itself. And so it is important to distinguish
18 that these guidelines require operational efficiency, not just
19 theoretical efficiency. They require an annual report of
20 operational efficiency that these plants actually operate in
21 the manner that they have proposed to operate, and
22 continuously meet the 62 percent standard, rather than meet it
23 in an initial hearing process and then walk away without any
24 additional indication of how well they are performing, and
25 that if they fail to continue to meet the 62 percent standard,

1 as I mentioned earlier, they are subject to audit and
2 potentially to revocation of their certification.

3 CHAIRPERSON DOUGLAS: Thank you for those
4 clarifications. Are there any additional -- Commissioner
5 Weisenmiller.

6 COMMISSIONER WEISENMILLER: Yeah, I was just going
7 to say, the precise issue you raised was what the PUC dealt
8 with in the SRAC proceeding, and in the most recent update,
9 and that litigation certainly -- you had expert witnesses, you
10 had sworn testimony, you had very complicated models facing
11 that, and certainly very qualified people arguing on whether
12 the numbers were 7,000 or 9,000, with an incremental energy
13 rate for the entire system, not just the specific plant, but
14 looking at the operation and looking at the mixture of all the
15 plants and the most efficient to the least efficient. So,
16 again, it is a very very complicated issue, certainly I have
17 done a lot of work on that, but we really do not -- or should
18 not get into that today, and we certainly do not want to have
19 anything here that speaks to what we think that number really
20 is.

21 CHAIRPERSON DOUGLAS: Thank you. If there are no
22 other questions, we will move on to our next speaker. Gordon
23 Judd with NRG.

24 COMMISSIONER BYRON: While he is coming up, Mr.
25 Stagner, thank you for your comments and, also, I believe I

1 read last week Cardinal Co-Gen has one of the most efficient
2 combined heat and power generators in the state.

3 MR. STAGNER: They are actually at 59 percent.

4 COMMISSIONER BYRON: Thank you.

5 MR. JUDD: Good afternoon, Commissioners. Just a
6 couple of points I wanted to make from a thermal generating
7 entity, one thing is to kind of keep in everybody's mind is
8 that the CHP goals that have been set out by AB 1613 with the
9 60 percent efficiency, that was based on the idea that there
10 are existing thermal loads out there producing a lot of
11 greenhouse gas emissions, and that there is an opportunity for
12 those sites to do a better job of producing their product of
13 thermal load plus using grid electricity. Now, one of the
14 assumptions that is based in all that is this 80 or 85 percent
15 boiler efficiency, and a lot of the thermal loads out there do
16 not operate at that all the time. Eighty to 85 percent is
17 what they can attain when they are operating at their optimum
18 load. But when you are talking about a cement plant, or a
19 steam generation facility, they spend a lot of time below that
20 80 percent zone, 70 percent is not uncommon, especially when
21 you talk about start-ups and shutdowns. So what I would just
22 say is that, when we look at combined heat and power CHP
23 opportunities, we are always talking about existing thermal
24 loads that exist someplace in California. And so, in looking
25 at the opportunities to save, I think the legislation was wise

1 when they said, "Hey, if you can produce electricity with that
2 thermal load at combined 60 percent efficiency, that is a good
3 opportunity." We have seen a lot of information put out there
4 about wedges and greenhouse gas curves, and I applaud all
5 that, but one thing I would just like to point out is that
6 there are entities who are financially disincented for CHP.
7 Entities who make money by transporting electricity are
8 totally disincented for CHP because it is counteractive to
9 their business model. Their business model is to get paid to
10 transport electrons over wires. If I generate electrons
11 behind my fence, those electrons are not paying that revenue
12 for that company. So while there is a lot of input on
13 greenhouse gas and the real implications, I just remind
14 everybody that there are a lot of entities who are financially
15 disincented to have CHP developed on a site by site basis.
16 And I think the legislation that was put forth with 60
17 percent, I think that makes sense. And I think it was arrived
18 at just because, like was already said, combined power plant
19 can be at 50 percent, so if on-site generation can do 60
20 percent, let's give it a big thumb's up and let's say let's go
21 on. So I support the Commission with staying with the 60
22 percent number. Thank you.

23 COMMISSIONER BYRON: Thank you, Mr. Judd, for your
24 comments. And I think we know who you mean by "those entities
25 that are disadvantaged by this." But that is okay because

1 they use those excess funds to apply them towards supporting
2 ballot initiatives and such for other purposes.

3 CHAIRPERSON DOUGLAS: The last speaker we have is --
4 unless anyone in the room has been so inspired by the debate
5 that they would like to fill out a blue card -- is on the
6 phone, Keith Davidson of DE Solutions. Keith, are you there?

7 MR. DAVIDSON: Hello, can you hear me?

8 CHAIRPERSON DOUGLAS: Yes, we can.

9 MR. DAVIDSON: Yeah, thank you, Commissioners and I
10 am sorry for not being there, but DE Solutions is an
11 engineering consulting firm. We do -- most of our business is
12 focused on combined heat and power where a number of the
13 California Clean DG Coalition that is comprised of engine
14 turbine microturbine manufacturers, project developers, and
15 other interested parties in the business. And my comments are
16 going to be made on behalf of really the whole coalition, of
17 the California Clean DG Coalition. And we really do
18 appreciate the process and the work that the CEC and CEC
19 staff, in particular, have put into this, and realize that it
20 was not an easy process, and there are a lot of ways to come
21 up with different answers, and the one gentleman from the CEC
22 that said it is all assumption driven, I think that is
23 absolutely correct. One thing I did click on the discussion
24 today was Evie's comments that there is the right wedge, and
25 you are absolutely right, we should not lose track of that.

1 But we feel, and we have got analyses to back it up, that for
2 all practical CHP systems, not necessarily theoretical CHP
3 systems, that 60 percent is going to provide you with a
4 greenhouse gas benefit in the State of California. And 62
5 percent is even better. Our membership for the most part is
6 not going to quibble or be opposed to 62 percent, first the 60
7 percent, I think we are somewhat concerned that it may start a
8 general creeping up, and to the point where no telling where
9 it is going to stop, and where it might compromise
10 economically the design and implementation of economically
11 viable projects. So we do have a concern, but we are
12 supportive of the decision and recommend and would be happy to
13 see it move forward. Another term I might just pass though,
14 is that, you know, in terms of how much greenhouse gas
15 benefits and combined heat and power does provide, it is all
16 assumption driven, and you know, there is some different ways
17 to go about it that were expressed around the table, and I
18 have got my pet way of doing it, but I noticed that CEC, the
19 California Air Resources Board, and the PUC also, all go about
20 it in a little bit different way, and I would recommend and
21 encourage that the state, perhaps with input from some of us
22 that are not part of the state agencies, try and get on the
23 same page in terms of how they delay a greenhouse gas benefit
24 associated with combined heat and power. And with that, maybe
25 just one more, and that is that I think that today with higher

1 gas prices and the electric rates the way they are, that the
2 economic design and greenhouse gas design of a combined heat
3 and power system are going to be pretty close to one and the
4 same. And I think that market forces have learned from some
5 past mistakes, when gas prices were real cheap, and I think
6 going forward you are going to see people that are putting
7 money into the projects, they are going to make sure that they
8 are efficient, they are going to make sure that they are going
9 to be saving greenhouse gas emissions, and they are going to
10 make sure that they are going to be making money. So I will
11 conclude there. So thank you.

12 CHAIRPERSON DOUGLAS: Thank you, Mr. Davidson and
13 thank you for hanging in. Commissioner Byron?

14 COMMISSIONER BYRON: Thank you, Mr. Davidson. And I
15 would like to just really emphasize the importance of your
16 last comment, I think that is often lost in this discussion,
17 as well, that is that the folks that will invest in these
18 kinds of projects to install CHP do have an interest in making
19 sure that they are as efficient as possible, as well. It is
20 self-limiting aspect to the economics of the project for
21 themselves, but thank you for being on the phone and for your
22 comments.

23 CHAIRPERSON DOUGLAS: Very well. We are through
24 with public comment. At this time, I would like to ask the
25 Chief Counsel to respond to the question about -- or for Mr.

1 Beck to respond to the question about the 60 percent.

2 MR. BLEES: Thank you, Chairman Douglas,
3 Commissioners. I guess in this debate I am the Ambassador
4 from the Mysterious Land of Attorneystan. First, let me
5 address Ms. Kahl's concern as to whether the establishment of
6 the 62 percent efficiency standard -- or any other matter in
7 these guidelines such as the absence of a double-benchmark --
8 would set any sort of a precedent, and the short answer is no.
9 If the Commission is considering guidelines for larger
10 different kinds of facilities, smaller facilities, under a
11 future statute, as long as there is evidence in the record
12 supporting the Commission's actions, and as long as whatever
13 is adopted complies with the applicable statutory criteria,
14 the Commission is not bound by what it did in a previous
15 proceeding. Similarly, if after the Commission has received
16 data for a few years on the actual performance of the
17 assistance, and it decides that it needs to change the 62
18 percent, or adopt a double-benchmark, again, as long as you
19 can have another proceeding, as long as there is evidence to
20 support what you are doing, you are fine.

21 CHAIRPERSON DOUGLAS: Mr. Brees, I appreciate that.
22 I think we agree that we are not bound in the future by the
23 decision we make today. I think we were most interested in
24 the question of 60 percent because it was raised by a number
25 of commenters.

1 MR. BLEES: Yes, thank you. I am just about to get
2 to that. Mr. Beck, who was the lead attorney on this matter,
3 and I have considered this. We carefully read the comments
4 submitted by Ms. Kahl, and we are confident that the
5 Commission does have the authority to adopt the 62 percent
6 efficiency standard. In the first place, we disagree that
7 there is a plain meaning to the single provision that Ms. Kahl
8 quoted, which states that an eligible CHP system shall meet a
9 NO_x standard of .07 pounds per mWh and a minimum efficiency of
10 60 percent. The phrase a "minimum efficiency" strongly
11 suggests that there is, in fact, a floor that the Energy
12 Commission must abide by -- 60 percent. But it does not limit
13 the Commission's discretion to set a higher efficiency
14 requirement such as the 62 percent. In Ms. Kahl's written
15 comments, she also pointed out two important principles of
16 statutory interpretation, which are the need to harmonize any
17 one statutory provision with the rest of the statute of which
18 it is a part, and to make sure that the statutory
19 interpretation carries out the intent of the legislature.
20 When you look at the entire act taken as a whole and, in
21 particular, when you look at the strong statement of
22 legislative intent which is to dramatically increase the use
23 of combined heat and power, again, we believe that these
24 strongly support the Commission's authority to adopt the 62
25 percent requirement. Things that were not mentioned either

1 today or in the written comments, but that also support the
2 Commission's authority, are the legislative history of the
3 act. When you look at the versions of the bill, of AB 1613,
4 as it went through the Legislature, there are words and the
5 structural organization of the parts of the statute that refer
6 to the Energy Commission's setting of guidelines, and you can
7 see that, at one point, there was a reference when discussing
8 our guidelines that really tied it specifically to the 60
9 percent standard; that cross-reference is not in the final
10 version of the bill. Finally, I should point out that, as a
11 general matter, the courts give substantial deference to
12 agency interpretations, as long as they are reasonable, and I
13 think that would be particularly true in this case. We have
14 heard that this is a matter that is very complex technically
15 just because of the nature of the subject matter, that there
16 is a lot of data out there that can point in different
17 directions, that there is a lack of complete data, there is a
18 lack of agreement by experts on the appropriate methodologies
19 to use, on the appropriate assumptions to use when modeling
20 technical and environmental and economic effects. This is
21 also an area that is complex from a policy standpoint. The
22 Commission needs to be cognizant not only of the directions of
23 AB 1613, but of the greenhouse gas reduction goals of AB 32.
24 And, in fact, 1613 refers to other greenhouse gas reduction
25 actions. We need to be cognizant of the achievement of the

1 RPS. This Commission and the PUC have established the loading
2 order. This is a pot that has many different ingredients, and
3 when faced with a complex situation where the agency has
4 technical and policy expertise, the courts are that much more
5 likely to defer to the agencies' interpretation. I can go
6 into more detail, but I have a feeling you do not want me to.

7 CHAIRPERSON DOUGLAS: You saw me leaning towards my
8 microphone, didn't you? I am actually satisfied with your
9 thorough explanation. I would like to ask if the other
10 Commissioners have questions about our authority to go beyond
11 the 60 percent.

12 COMMISSIONER WEISENMILLER: I was going to ask if
13 Evie Kahl has a response on that and then we can move forward
14 on the legal issue.

15 CHAIRPERSON DOUGLAS: Ms. Kahl, do you have a
16 response on the legal issue?

17 COMMISSIONER BYRON: I think the answer is, "Of
18 course."

19 MS. KAHL: You never ask that question of a lawyer.
20 In terms of why the word "minimum" was there is because there
21 will be CHP facilities ranging up to 75 percent, 78 percent,
22 so the 60 percent was a minimum, not an absolute. Had the
23 statute said simply "60 percent," what would have happened to
24 someone who was at 65 or 67? So to me, the term "minimum" has
25 a completely different meaning than your counsel has taken

1 from it. So I think basically we are just reading the words
2 of the statute differently and lawyers do disagree or we would
3 not have business to do. So I will leave it at that. Thank
4 you.

5 CHAIRPERSON DOUGLAS: Thank you, Ms. Kahl. Very
6 well, we have heard from a number of members of the public, we
7 have already had a robust discussion in the course of hearing
8 public comment. Are there concluding thoughts that
9 Commissioners would like to offer? Commissioner Byron?

10 COMMISSIONER BYRON: If I may, Madam Chair. I do
11 not think we had any idea that we would go on this late, this
12 late this morning for the meeting. And I apologize. It is an
13 important topic, clearly there has been a lot of good comment
14 received, and there is a lot agreed upon and a lot of
15 disagreement. I would like to just give my fellow
16 Commissioners some context here. I think that the work that
17 staff has done and the Public Utilities Commission, which
18 really has not come up, either, is really an example in good
19 government. Assembly Member Blakeslee wrote, I think, what
20 was a very good bill that got through the Assembly and was
21 signed by the Governor about a year ago, that had a couple of
22 components to it, this is one of those components, the other
23 was at the Public Utilities Commission to develop essentially
24 a tariff or a rate structure for the sale of energy from CHP
25 to utilities. We worked collaboratively with the PUC and they

1 developed that tariff for excess energy. We conducted a
2 number of workshops here at this Commission with the
3 participation of many of the people that you heard from today,
4 we received good comments. I think we had a very thorough
5 public process, we also went back to the Assembly Member and
6 reviewed with him, both the PUC and the Energy Commission, the
7 results of our work and to essentially make sure we were in
8 line or consistent with what his intent was. And I think it
9 is fair to say we are very hopeful that, together, we have put
10 together the tools that will open up this combined heat and
11 power market and begin to see the GHG reduction that the Air
12 Resources Board is looking for in this sector. I think I can
13 say pretty confidently that, if the savings are not there, if
14 we are not seeing the GHG reduction that they expect from this
15 sector, we will amend these guidelines, we will change them,
16 we will have to change them, that is clearly what we are
17 trying to accomplish here. I think it is interesting, and
18 maybe even extraordinary, the lengths that -- as Mr. Judd said
19 -- those entities that are disadvantaged by this will go to in
20 order to prevent non-investor-owned utility-owned generation
21 in their service territories. That battle has been fought and
22 will be continued to be fought, but I also think we should
23 take to heart Commissioner Weisenmiller's comments and
24 explanation, and unfortunately we have not even had an
25 opportunity to speak about this since you have been appointed

1 to the Commission, that this is really limited to the size of
2 generators that are being discussed in 1613, a lot of the
3 comments we have heard here, I think, are just extrapolated
4 fears, maybe real fears, but for right now, this is confined
5 to certain size of generation in an effort to meet the goals
6 of the Air Resources Board GHG reduction. I assume that there
7 will be further discussion, but I would like to go ahead and
8 move this item and thank the staff very much, I think they
9 have done an excellent job on this. Like I said, I think this
10 has been an example of good government. I am very proud to
11 have been associated with this project and working with the
12 staff and moving it forward.

13 CHAIRPERSON DOUGLAS: Thank you, Commissioner Byron.
14 Other comments from Commissioners? Commissioner Eggert.

15 COMMISSIONER EGGERT: Yeah, just a -- I also would
16 say this has been a very good discussion. I think we have
17 sort of dug into this particular topic, I think, quite deep
18 and I think I certainly have a much better understanding of
19 the direction and some of the rationale that has been put
20 forward to establish these guidelines and understand some of
21 the concerns of the stakeholders, as well. I would just sort
22 of reiterate my very very strong interest in this evaluation,
23 as I had mentioned. And I think to maybe some of Mr.
24 Stagner's comments, that through that evaluation we do look at
25 the implications of the interaction with these other policies,

1 including RPS, the nature of the changing electricity system
2 in the state, and how that might change the future benefits
3 that would accrue from increased adoption of CHP. But I
4 think, with that, I will stop there and see if there are other
5 comments.

6 VICE CHAIR BOYD: A quick comment. I will position
7 myself somewhere between -- or somewhere to one side of
8 Commissioner Weisenmiller with regard to his neutrality and my
9 eight years now advocacy of CHP is a good thing to do, but
10 certainly taking into account climate change and its
11 consequences, so I too know the staff has labored mightily
12 over this. And I only have one question and that is the
13 bottoming cycle and the 60 percent vis a vis 62 percent, and I
14 am wondering if we want to make a change there, or at least at
15 this point in time. Even the staff conceded some that they
16 had not put the -- I do not want to put words in their mouth
17 or do them any discredit, but maybe not thought about it as
18 much before today --

19 CHAIRPERSON DOUGLAS: The same amount of focused
20 attention --

21 VICE CHAIR BOYD: Indeed, indeed. So I leave that,
22 Commissioner Byron, since you made a motion and have been
23 really involved in this issue, I would defer to you, but that
24 is a question hanging in my mind, still, after our long
25 discussion here.

1 CHAIRPERSON DOUGLAS: Commissioner Weisenmiller.

2 COMMISSIONER WEISENMILLER: I had exactly the same
3 question in mind and wanted to ask Commissioner Byron to speak
4 to whether we reduce the bottoming cycle to 60 percent. But I
5 think, looking generally, I think the major points I would
6 like to make, one is -- and I think the PUC certainly realizes
7 that nothing we are doing today is precedential in terms of
8 any negotiations they are doing, and again, I think it is
9 important for us to certainly encourage people to do those
10 negotiations, but in terms of whatever methodology we are
11 adopting is for a limited program, for a limit purpose.
12 Certainly, I think any program we need to reevaluate over
13 time, I think all of us are very interested in the greenhouse
14 gas implications; having said that, it is a very very
15 complicated issue to determine what they are. And as we go
16 forward, I am sure as the Air Board struggles with that, you
17 know, but it will be very good to start getting some data. I
18 suspect this is going to take a couple years to get some
19 meaningful data out of this program for those reevaluations.
20 But hopefully we can reevaluate every couple of years. And,
21 again, I would certainly be receptive to reducing the
22 bottoming cycle. I think the other thing I just want to flag
23 is, as we have talked about all these efforts, we really have
24 to keep our engineers focused on the siting case side of
25 stuff, so that one of the things that I would be very worried

1 about, or want to know is, obviously, having said all the
2 issues of the electric system, and the boilers and all of that
3 stuff is very complicated, certainly there are a lot of
4 complicated issues on exactly what is the wasteful heat, or
5 how is that used, what is wasteful, what is not? And again, I
6 think we are probably going to be taking a pretty perfunctory
7 perspective there, particularly in the next couple of years as
8 we are just dealing with the siting case reality. I mean, I
9 have seen a couple of the old QF disputes which are getting
10 very very complicated, very messy, lots of litigation on
11 exactly what was useful and what was not, and, again, we just
12 do not have the engineering resources to get into that level
13 and meet our siting obligations. So, again, I know those of
14 you who may again be concerned about some of the precedential
15 stuff, again, for our purposes we are going to keep it simple.
16 But, again, I would certainly defer to you and Commissioner
17 Byron on the bottoming cycle of the program, but again I want
18 to thank you and Assemblyman Blakeslee for trying to
19 revitalize this industry. It has been sort of on hold for a
20 long time.

21 COMMISSIONER BYRON: Commissioners, those are all
22 excellent comments, I appreciate them very much. And, you
23 know, I think I would probably turn to Dr. Soinsky for a short
24 answer to my next question, and that is, you know, we look to
25 staff to develop the threshold and, consistent with counsel,

1 felt we were certainly understanding 1613 correctly to set a
2 threshold that made sense, that was relatively simple and
3 straightforward and not complicated, etc. And we have
4 selected this 62 percent -- I should say the staff has --
5 based upon your evaluation. What is your response to
6 Commissioners Boyd and Weisenmiller with regard to a 60
7 percent threshold for bottoming cycle?

8 DR. SOINSKY: Well, I think I should defer to, you
9 know, the Commissioners. It is a very difficult issue from a
10 technical standpoint. I really can say that, you know, it
11 should be raised to 62, and I say that in the Statement of
12 Reasons, I say that verbally today. So I -- if given the
13 value that bottoming cycles potentially have, whether they are
14 supplementary fired and especially if they are not
15 supplementary fired, I would think that it would be in the
16 interest of the state to certainly encourage that to the
17 maximum degree possible.

18 COMMISSIONER BYRON: Commissioners, I recommend --
19 my recommendation would be that we go about -- how can I say
20 this properly? I would like to allow my motion to stand for
21 approval of this document as is, but that the staff work
22 towards perhaps an amendment to this report if it is
23 appropriate to look at this bottoming cycle issue more
24 carefully. I would -- and the reason I am making the
25 recommendation to make my motion stand also has to do with the

1 fact that you may or may not be aware that the Public
2 Utilities Commission decision that was made in December for a
3 tariff on this issue has been appealed by all the investor-
4 owned utilities for a stay, and so I want to make sure we do
5 this all properly and carefully, such that our decision
6 stands, and that we can begin to provide some regulatory
7 certainty for this industry around this issue. I have not had
8 a chance to talk to any members of the Public Utilities
9 Commission with regard to their feelings about the motion to
10 stay, but we would hopefully get a sense pretty quickly
11 whether or not there is merit to that and if it will stand, or
12 whether or not they will provide the same level of stability
13 that is needed for this industry to expand, as well. So that
14 would be my recommendation, is that we go ahead with the
15 motion as is.

16 CHAIRPERSON DOUGLAS: Commissioners, we have a
17 motion on the table. Is there a second?

18 VICE CHAIR BOYD: I will second the motion.

19 CHAIRPERSON DOUGLAS: All in favor?

20 (Ayes.)

21 The item is approved. And I would like to pause at
22 this moment and offer my sincere thanks to staff for your hard
23 work on this item, for Commissioner Byron for your leadership,
24 I know it has been a long long effort that the Electricity and
25 Natural Gas Committee has taken on, Commissioner Boyd, as well

1 as the Associate Member of that Committee, and also my thanks
2 to our two new Commissioners who are technically in their
3 second Business meeting, but really, in terms of having a
4 packed agenda, this is the first and it was quite a long
5 meeting and quite an interesting meeting for both of you. We
6 usually strike somewhere between the first and the second.
7 Comments, Commissioner Eggert?

8 COMMISSIONER EGGERT: I guess just maybe very
9 quickly. You know, I want to thank my fellow Commissioners
10 and this being the second meeting, I can tell this is a group
11 that feels very passionately about the issues and the policy
12 decisions that we are making up here, and I am just very proud
13 to be part of the body. So, thank you.

14 CHAIRPERSON DOUGLAS: Thank you.

15 COMMISSIONER WEISENMILLER: I agree. It is passion
16 up here, but also in terms of -- we certainly all value the
17 participation in these discussions and sort of the
18 contributions from all the parties that have spoken, or even
19 by being here, you know, have indicated the importance of
20 these issues to them, and certainly we appreciate the
21 contributions.

22 CHAIRPERSON DOUGLAS: Absolutely.

23 VICE CHAIR BOYD: If anybody told you this was going
24 to be easy, I guess we took care of that today.

25 CHAIRPERSON DOUGLAS: Very well. On to Item 19.

1 Minutes. This was the very last meeting we had before and two
2 new Commissioners were on board, so they will abstain. Is
3 there a motion?

4 VICE CHAIR BOYD: Move approval.

5 COMMISSIONER BYRON: Second.

6 CHAIRPERSON DOUGLAS: All in favor?

7 (Ayes.)

8 The Minutes are approved with three votes.

9 Item 20. Commission Committee Presentations and
10 Discussion.

11 COMMISSIONER BYRON: Very brief -- I would like to
12 correct something I said at our last business meeting when I
13 was welcoming Commissioner Weisenmiller. I mistakenly said
14 that he was the first member of the staff to become a
15 Commissioner, and of course, I know that there are others and
16 I did not mean to say first, so I apologize. But the standard
17 is quite high, Commissioner, and I am really reconsidering my
18 welcome of Commissioner Eggert since he now seems to be
19 setting meetings at 8:00 in the morning around here. I am
20 sorry, that is humor and that one is apology.

21 CHAIRPERSON DOUGLAS: Thank you, Commissioner Byron.
22 And anything else on this item?

23 Item 21. Do we have a Chief Counsel's Report?

24 MR. BLEES: Nothing today, thank you.

25 CHAIRPERSON DOUGLAS: Item 22. For a brief

1 Executive Director's Report.

2 MS. JONES: I think in the interest of time, I might
3 just do an e-mail update on our activities for Commissioners.

4 CHAIRPERSON DOUGLAS: We thank you.

5 Item 23. Public Advisor's Report. Welcome again,
6 Ms. Jennings.

7 MS. JENNINGS: Thank you. And thank you for the
8 opportunity to serve as a Public Advisor, and I can see that
9 it is best to say that I will report next week. I have just
10 been getting my feet wet here and trying to find out
11 everything I could from the departing Public Advisor, and I
12 really appreciate the opportunity to serve.

13 VICE CHAIR BOYD: It is good to recognize that now
14 there are three ex ARB people, and you know, the flow can come
15 back the other way once in a while.

16 CHAIRPERSON DOUGLAS: Very good. Item 24. Is there
17 any public comment? I do know that we have a card from Mr.
18 Nesbitt. Please come forward. Please be brief.

19 COMMISSIONER BYRON: The reason, Mr. Nesbitt, is we
20 are already late for our 1:00 meetings.

21 MR. NESBITT: I had one too. George Nesbitt,
22 CalHERS. I want to just expand a little on CalHERS and just
23 say we are California Association of HERS Raters, so we are
24 trying to organize the HER Rater industry, and we are an all
25 volunteer, basically unfunded group at this point. So I want

1 to give you just a little bigger overview of how New Solar
2 Home Partnerships actually is working in the field. A typical
3 project: Title 24 has to be revised by a CPE because it was
4 not done by one initially. The house is completed, PV system
5 is installed, then the HERS Raters called. Okay, we come out,
6 the Title 24 still has to be revised because someone did
7 something wrong, the CFLR PVs have to be revised because the
8 solar people did not get the shading right, or they changed
9 modules. If we actually get called out during construction,
10 Title 24 had to be revised because the energy consultant took
11 QII, there is no way they are going to meet it. Or, you know,
12 people did not put in the right furnaces because they do not
13 care what is on the Title 24, that is unfortunately what
14 happens out in our world. And then, when we get to the rebate
15 process, we have got to revise things, even more because we
16 were not trained right, we were not told by plan check a
17 couple things, you know, things did not match. And so, at
18 each of these, there are added costs, added delays, and added
19 expenses. So there is a lot of barriers to the New Solar Home
20 Partnership Program. It is a complicated process, the lack of
21 clarity, you know, that is why the guidelines are important.
22 The whole issue, you know, we are getting called when the
23 house is done. Why? Because someone did not understand and
24 make sure that they knew that we needed to inspect insulation
25 and other things, if that is what we were supposed to have

1 been doing. There are multiple players. We are dependent on
2 a CPE, a builder, there are subcontractors, solar installer,
3 the HERS Rater, providers, the administrators, the Energy
4 Commission. And then there are problems with the CSI existing
5 rebate versus New Solar Home. CSI has like a meaningless
6 efficiency measure, so installers look at it and say, "Well,
7 why don't I just go under CSI?" You know? "I don't have to
8 bother with all this stuff." They do not have to pay for a
9 HERS Rater. The IOUs are paying for them out of their
10 administrative budget.

11 CHAIRPERSON DOUGLAS: Mr. Nesbitt, can I ask you to
12 maybe wrap up in one more minute?

13 MR. NESBITT: Yeah. You know, the inspection takes
14 half an hour and they do not have to do the efficiency. There
15 is a different calculator, different shading rules, different
16 application process for existing versus new. You know, we
17 have got goals of 100 percent net zero by 2020, a million
18 solar roofs, and unfortunately these kind of barriers mean,
19 especially if a custom home owner -- if the home owner wants
20 PV, they are going to install it, okay, but if it means the
21 developer decides not to do it, it is pushed on the new
22 homeowner, which means less systems get installed, it costs
23 more, less likely to happen, the solar industry is losing
24 sales. I have had to argue with installers that I am supposed
25 to inspect all the efficiency measures; obviously I am not

1 getting work from them if I am telling them I am supposed to
2 do something they believe I am not. When I give my cards out
3 to solar installers at shows, they all grumble. "We try to
4 avoid New Solar Home Partnership Program." You have got big
5 installers out there basically saying, "No, we do not want to
6 deal with it anymore." You know, it is unfortunate. It is a
7 great program, it is a great idea, I believe in the
8 efficiency, we absolutely have to inspect because if we do not
9 inspect as the HERS Rater, it does not happen. So you know,
10 that is why we need to really work on these clarifications,
11 make it clear because it is not. And you know, I do not know
12 if beyond -- I do not know if you really need to call like a
13 stakeholder meeting with the solar industry, the providers,
14 the HERS Raters, the plan checkers, you know, and everyone get
15 down with the current revisions and really work it out to make
16 sure we all understand it and that it works smooth, and look
17 at any issues -- is there anything that really needs to go
18 back and needs deeper work to change?

19 CHAIRPERSON DOUGLAS: Mr. Nesbitt, thank you. Thank
20 you for raising these issues and thank you for your commitment
21 to the New Solar Homes Partnership, to the HERS Rating
22 Program, to the HERS Raters. I am going to suggest to you
23 that one way to follow-up may be to seek out a longer
24 discussion with the Chair of our renewables committee, or one
25 of his advisors is one possible way of following up, but that

1 might be a forum to have a broader ranging policy discussion
2 or strategy discussion, as the case may be --

3 MR. NESBITT: Yeah.

4 CHAIRPERSON DOUGLAS: -- than what we could do in
5 the time remaining to us right here. But thank you for
6 coming, thank you for staying through the entire business
7 meeting.

8 MR. NESBITT: And thank you for listening, my first
9 full Commission meeting.

10 CHAIRPERSON DOUGLAS: Very good, that was your
11 decision, but there you go.

12 All right, Item 25. Internal Organization and
13 Policy. Item 25 states that the Commission may recess the
14 meeting and continue it later for purposes of a general
15 discussion and of Commission internal organization and policy.
16 No action is taken in such continued sessions. The Commission
17 will do so today, we are recessing the meeting and we will
18 continue it later to hear discussion of the resolution
19 training and in communication techniques that is currently
20 being conducted at the Commission. Therefore, we now recess
21 today's Business Meeting and continue it to the third floor
22 conference room at 1:45.

23 (Whereupon, at 1:24 p.m., the business meeting was adjourned.)

24 --o0o--

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CERTIFICATE OF REPORTER

I, PETER PETTY, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Business Meeting; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said meeting, nor in any way interested in outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this _____ day of JANUARY 27, 2010.

PETER PETTY