

BUSINESS MEETING
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)
)
Business Meeting)
)
_____)

CALIFORNIA ENERGY COMMISSION
HEARING ROOM A
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

WEDNESDAY, MARCH 17, 2004
10:02 A.M.

Reported by:
Peter Petty
Contract No. 150-01-006

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

COMMISSIONERS PRESENT

William J. Keese, Chairman

James D. Boyd

John L. Geesman

B.B. Blevins

STAFF PRESENT

Robert Therkelsen, Executive Director

Jonathan Blees, Assistant Chief Counsel

Betty McCann, Secretariat

Bob Worl

Bradley Meister

Tony Wong

Gary Klein

Barbara Byron

Melinda Rogers

Jamie Patterson

Pramod Kulkarni

Joe O'Hagan

Linda Spiegel

Laurie ten Hope

Guido Franco

Kelly Birkinshaw

Dave Michel

Alec Jenkins

STAFF PRESENT

George Simons

John Byer

PUBLIC ADVISER

Margret Kim

ALSO PRESENT

Christopher T. Ellison, Attorney
Ellison, Schneider and Harris, LLP

Thomas Tanton, Principal
T2 & Associates

Manuel Alvarez, Director
Southern California Edison Company

V. John White, Executive Director
Center for Energy Efficiency and Renewable
Technologies

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P R O C E E D I N G S

10:02 a.m.

CHAIRMAN KEESE: Good morning. I'll call this meeting of the Energy Commission to order. Commissioner Boyd, would you lead us in the Pledge, please.

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

CHAIRMAN KEESE: Of course, on this day it would have been appropriate to have a good Irishman lead us in the Pledge.

COMMISSIONER BOYD: Don't you know O'Boyd?

(Laughter.)

CHAIRMAN KEESE: The consent calendar -- Commissioner Rosenfeld will not be joining us today. He's out of town on business. Actually in San Francisco at the PUC.

On the consent calendar we have items (a) through (f) except that item (d) has been withdrawn from the agenda. Do I have a motion on the consent calendar?

COMMISSIONER GEESMAN: So moved.

CHAIRMAN KEESE: Motion, Commissioner Geesman.

1 COMMISSIONER BOYD: Second.

2 CHAIRMAN KEESE: Second, Commissioner
3 Boyd.

4 All in favor?

5 (Ayes.)

6 CHAIRMAN KEESE: Opposed? Adopted four
7 to nothing.

8 Item 2, Los Esteros 2 Power Plant
9 Project. Possible approval of the Executive
10 Director's data adequacy recommendation for the
11 Los Esteros 2 Power Plant Project AFC.

12 MR. WORL: Good morning, Commissioners.
13 My name is Bob Worl, the Project Manager for the
14 Los Esteros project. And at this time I'd like to
15 say that working with the applicant we've quickly
16 resolved all of the information issues and staff
17 has recommended to the Director that they be data
18 adequate at this time.

19 CHAIRMAN KEESE: Thank you. Any other
20 discussion here?

21 COMMISSIONER GEESMAN: Sounds good to
22 me.

23 CHAIRMAN KEESE: All right.

24 COMMISSIONER GEESMAN: I'm pleased to
25 see that they came back as quickly as they did.

1 CHAIRMAN KEESE: Thank you.

2 MR. WORL: Commissioners, I do have one
3 other statement to make, and we just wanted to
4 bring this to your attention.

5 CHAIRMAN KEESE: All right.

6 MR. WORL: And that is that although the
7 information that was provided in the supplement
8 and the AFC is complete for data adequacy, there's
9 still an uncertainty regarding the need for
10 consultation with the U.S. Fish and Wildlife
11 Service under the Endangered Species Act.

12 The particular issue is the protection
13 of the Bay checkerspot butterfly and critical
14 habitat for that species. We are planning on
15 working closely with the applicant on this issue
16 and we're requesting comments from the Fish and
17 Wildlife Service early in the proceedings. And
18 our plan is to update the Committee that's
19 appointed at the first opportunity.

20 CHAIRMAN KEESE: Thank you. And as I
21 understand it, you're still finding it data
22 adequate; you're just raising this as an issue for
23 the project?

24 MR. WORL: This -- yes. We just felt it
25 important that the Committee that gets appointed

1 be aware of this early on.

2 CHAIRMAN KEESE: Thank you. Mr.
3 Ellison, do you have anything at this time?

4 MR. ELLISON: No comments.

5 CHAIRMAN KEESE: Thank you. Do I have a
6 motion?

7 COMMISSIONER GEESMAN: So moved.

8 CHAIRMAN KEESE: Motion, Commissioner
9 Geesman.

10 COMMISSIONER BOYD: Second.

11 CHAIRMAN KEESE: Second, Commissioner
12 Boyd.

13 All in favor?

14 (Ayes.)

15 CHAIRMAN KEESE: Opposed? Adopted four
16 to nothing. Thank you. Thank you, we'll see you
17 as we go forward.

18 Item 3, Los Esteros 2 Power Plant
19 Project, Committee Assignment. Possible approval
20 of a Committee assignment for Los Esteros 2.

21 I would entertain a motion that I will
22 be lead on this and Mr. Blevins will be second.

23 COMMISSIONER BOYD: So moved.

24 COMMISSIONER GEESMAN: Second.

25 CHAIRMAN KEESE: Motion, Commissioner

1 Boyd; second, Commissioner Geesman.

2 (Laughter.)

3 CHAIRMAN KEESE: All in favor?

4 (Ayes.)

5 CHAIRMAN KEESE: Opposed? Adopted four
6 to nothing.

7 COMMISSIONER BOYD: Some people
8 understood the significance of the motion.

9 CHAIRMAN KEESE: Yes. Item 4, County of
10 Napa. Possible approval of an \$800,000 to the
11 County of Napa to install energy efficient motors,
12 energy efficient lighting, two 75 kilowatt
13 cogeneration units, et cetera. Mr. Meister.

14 MR. MEISTER: Good morning,
15 Commissioners. I'm Bradley Meister.

16 This item has previously been in the
17 Policy Committee and received their support. I'd
18 like to mention for your information, although not
19 part of this loan, Napa County is installing over
20 200 kilowatts of photovoltaics at two new
21 buildings. The buildings are the new Juvenile
22 Justice Center and the new Sheriff's facility.

23 The staff recommends that the Commission
24 approve this loan to the County of Napa for
25 \$800,000.

1 CHAIRMAN KEESE: Thank you.

2 COMMISSIONER GEESMAN: Mr. Chairman, I
3 would move we accept the staff's recommendation.

4 COMMISSIONER BLEVINS: I'll second.

5 CHAIRMAN KEESE: Motion, Commissioner
6 Geesman; second, Commissioner Blevins.

7 All in favor?

8 (Ayes.)

9 CHAIRMAN KEESE: Opposed? Adopted four
10 to nothing. Thank you.

11 Item 5, City of Fresno. Possible
12 approval of a \$2,661,000 loan to the City of
13 Fresno to install photovoltaic systems and other
14 equipment.

15 MR. WONG: Good morning, Commissioners.
16 I'm Tony Wong with the energy efficiency division.
17 We have evaluated the project and believe that the
18 project is technically and economically feasible
19 and meet the loan program requirements.

20 And the Efficiency Committee approved
21 the staff recommendation, and recommended we move
22 this item for the full Commission consideration
23 today.

24 CHAIRMAN KEESE: Thank you. Any
25 questions up here?

1 COMMISSIONER BLEVINS: I'll move it.

2 CHAIRMAN KEESE: Motion, Commissioner
3 Blevins.

4 COMMISSIONER BOYD: Second.

5 CHAIRMAN KEESE: Second, Commissioner
6 Boyd.

7 All in favor?

8 (Ayes.)

9 CHAIRMAN KEESE: Opposed? Four to
10 nothing. Thank you.

11 MR. WONG: Thank you.

12 CHAIRMAN KEESE: Mr. Therkelsen, do I
13 understand that that exhausts our funding --

14 MR. THERKELSEN: The answer is,
15 Commissioners, yes, with the approval of those two
16 items our ECAA bond fund is down to zero. We are
17 going to go ahead and start to process for
18 developing and issuing new bonds later on this
19 fall.

20 CHAIRMAN KEESE: Thank you. Thank you,
21 Mr. Wong.

22 Item 6, 2003 annual report. Possible
23 adoption of the 2003 annual report for the Public
24 Interest Energy Research program. Mr. Klein.

25 MR. KLEIN: Good morning, Commissioners.

1 My name is Gary Klein; I'm the Project Manager for
2 the 2003 PIER annual report.

3 Each year Californians consume \$30- to
4 \$35-billion worth of electricity and \$12- to \$15-
5 billion worth of natural gas. Well over \$100
6 million on a hot summer day.

7 California continues to face significant
8 challenges in meeting its electricity needs in a
9 way that improves and maintains system
10 reliability, promotes economic growth and protects
11 the environment and public health.

12 To help address these issues the
13 Legislature established the Public Interest Energy
14 Research program, otherwise known as PIER, at the
15 California Energy Commission; and funds this
16 program with payments from all ratepayers.

17 PIER focuses on California's unique
18 environmental, economic and demographic challenges
19 allowing state policymakers to craft state-
20 specific solutions to our energy needs. Within
21 this context we are working as PIER to develop
22 information and technologies that address critical
23 public interest needs and can help avoid, if
24 nothing else, the next energy crisis.

25 Based on a review of the program from

1 1998 to 2002 that was conducted last year,
2 ratepayer benefits are projected to be between \$2
3 and \$5 for every dollar contributed.

4 California must continue its public
5 interest R&D activities if it's to meet its broad
6 policy goals. With its own robust program the
7 state can retain the ability to influence federal
8 policies and spending patterns on energy R&D.
9 When energy R&D is coordinated and guided by state
10 energy goals the policies become incentives for
11 requiring financing and implementing new
12 strategies and technologies, which in turn drive
13 new regulatory policies and market incentives that
14 will keep California's energy future bright.

15 Pursuant to section 25620.8 of the
16 Public Resources Code the Commission shall prepare
17 and submit to the Legislature an annual report not
18 later than March 31st of each year on the awards
19 made pursuant to this chapter.

20 The report shall include information on
21 the names of the award recipients; the amount of
22 awards; and the types of projects funded; an
23 evaluation of the success of any funded projects;
24 and any recommendations for improvements in the
25 program.

1 The report shall set forth the actual
2 cost of the programs or projects funded by the
3 Commission; the results achieved; and how the
4 actual cost and results compare to the expected
5 cost and benefits.

6 The 2003 PIER annual report presents an
7 overview of the program; analyzes its benefits;
8 and highlights its accomplishments for 2003; and
9 its plans for 2004. The appendix provides
10 summaries on each of the more than 500 projects
11 funded by the program to date.

12 Before concluding here I'd like to
13 acknowledge the invaluable contributions made to
14 the PIER program by the Energy Commission Staff,
15 the members of the PIER independent review panel,
16 and the many concerned citizens who have actively
17 participated in PIER-related advisory groups,
18 planning focus groups and other programs forums to
19 date.

20 This participation has provided
21 essential input throughout the program's
22 development. And we will continue to seek such
23 input and assistance in the future as we strive to
24 further develop and improve the PIER program.

25 Finally, we wish to acknowledge the many

1 highly talented and creative researchers and
2 research organizations participating in the PIER
3 program. Without the team effort of these various
4 dedicated participants the important public
5 benefits of the PIER program could not be
6 achieved.

7 Staff has worked very very hard to
8 prepare this report in a very short timeframe.
9 And at this time staff recommends adoption of the
10 2003 PIER annual report.

11 CHAIRMAN KEESE: Thank you. I guess my
12 comment would be it is an excellent report. It's
13 an important report. It would be wonderful if we
14 could see broader circulation of the details,
15 conclusions and successes of that are listed in
16 the report. So I hope that will be reported to us
17 at some later date.

18 Any other comments?

19 Do we have a motion?

20 COMMISSIONER GEESMAN: Mr. Chairman, I
21 would move adoption.

22 CHAIRMAN KEESE: Motion, Commissioner
23 Geesman.

24 COMMISSIONER BOYD: Second.

25 CHAIRMAN KEESE: Second, Commissioner

1 Boyd.

2 All in favor?

3 (Ayes.)

4 CHAIRMAN KEESE: Opposed? Adopted four
5 to nothing. Thank you.

6 MR. KLEIN: Thank you very much.

7 CHAIRMAN KEESE: We'll take up items 7,
8 8 and 9 together, and then we will vote on them
9 individually, but they are all related.

10 Item 7, Western Governors Association.
11 Possible approval of contract R150-03-002 to
12 provide the first increment of funding from
13 Western Governors Association to the Commission
14 for planning and preparation for transuranic waste
15 shipments in California.

16 Item 8, The Governor's Office of
17 Emergency Services. Possible approval of contract
18 150-03-003 to provide the first increment of
19 funding to continue emergency response preparation
20 for federal transuranic waste shipments.

21 And item 9, California Highway Patrol
22 Commercial Vehicle Section. Possible approval of
23 contract 150-03-004 for \$25,000 to provide funding
24 to the CHP to reimburse expenses for inspecting or
25 escorting shipments of transuranic nuclear waste

1 in California.

2 Ms. Byron, would you lay these out for
3 us, please?

4 MS. BYRON: Yes. This is a continuing
5 program that is funded by the Department of Energy
6 to the western states through the Western Growers
7 Association. And we receive -- the California
8 Energy Commission receives funding from the
9 Western Growers Association to continue planning
10 for nuclear waste shipments in California to the
11 Waste Isolation Pilot Plan in New Mexico.

12 Most of the funding is passed through to
13 the Governor's Office of Emergency Services for
14 their emergency response training and providing
15 equipment to local responders along the routes.
16 And then a very small portion of it is going to
17 the Highway Patrol for inspections. They do
18 shipment inspections before they leave, and they
19 escort.

20 These three, as you mentioned, all are a
21 package, and we recommend support -- or approval.

22 CHAIRMAN KEESE: Thank you. Any
23 questions here?

24 COMMISSIONER BOYD: Move the item.

25 CHAIRMAN KEESE: Motion on item 7 by

1 Commissioner Boyd.

2 COMMISSIONER BLEVINS: Second.

3 CHAIRMAN KEESE: Second, Commissioner
4 Blevins.

5 All in favor?

6 (Ayes.)

7 CHAIRMAN KEESE: Opposed? Adopted four
8 to nothing.

9 COMMISSIONER BOYD: Move item 8.

10 CHAIRMAN KEESE: Motion by Commissioner
11 Boyd on item 8.

12 COMMISSIONER BLEVINS: Second.

13 CHAIRMAN KEESE: Second by Commissioner
14 Blevins.

15 All in favor?

16 (Ayes.)

17 CHAIRMAN KEESE: Opposed? Adopted four
18 to nothing.

19 COMMISSIONER BOYD: Move item 9.

20 CHAIRMAN KEESE: Motion on item 9,
21 Commissioner Boyd.

22 COMMISSIONER BLEVINS: Second.

23 CHAIRMAN KEESE: Second by Commissioner
24 Blevins.

25 All in favor?

1 (Ayes.)

2 CHAIRMAN KEESE: Approved four to
3 nothing. Thank you.

4 COMMISSIONER BOYD: Thank you, Barbara.

5 CHAIRMAN KEESE: Item 10, Building
6 Industry Institute. Possible approval of contract
7 400-03-006 for \$158,000 to provide information and
8 training on the current 2001 and the upcoming 2005
9 California building energy efficiency standards.

10 MS. ROGERS: Hi; I'm Melinda Rogers.
11 This contract is the result of an award that we
12 received from the DOE. And if it's approved it
13 will be the eighth consecutive year that we've
14 worked with BII to provide training to the large
15 production builders and the building officials
16 throughout the state. And typically we'll have
17 one in Nevada.

18 This year we're going to focus on the
19 current 2001 standards and the upcoming 2005
20 standards, with a focus on the new lighting
21 standards, as well as third-party verifications.

22 CHAIRMAN KEESE: Thank you. I have a
23 quick question for you.

24 MS. ROGERS: Sure.

25 CHAIRMAN KEESE: What is the timing of

1 the training? When do you plan to kick this off?

2 MS. ROGERS: As soon as it's approved --
3 the training will start possibly in six weeks or
4 so. They have to gather -- they have to get
5 together a list of building officials and builders
6 that they're going to work with throughout the
7 state.

8 CHAIRMAN KEESE: Thank you. Any other
9 questions?

10 COMMISSIONER BLEVINS: I'll move the
11 item.

12 CHAIRMAN KEESE: Motion, Commissioner
13 Blevins.

14 COMMISSIONER GEESMAN: Second.

15 CHAIRMAN KEESE: Second, Commissioner
16 Geesman.

17 All in favor?

18 (Ayes.)

19 CHAIRMAN KEESE: Opposed? Adopted four
20 to nothing.

21 MS. ROGERS: Thank you.

22 CHAIRMAN KEESE: Thank you. Item 11,
23 alternative energy systems consulting. Possible
24 approval of contract 500-00-016, amendment 1, to
25 add \$345,000 and expand research begun under

1 contract 500-00-016.

2 MR. PATTERSON: Good morning,
3 Commissioners. I'm Jamie Patterson. We are
4 asking to expand the scope of the contract in
5 order to include building energy management
6 systems.

7 The idea is that we will have this
8 software that we've been developing under the
9 contract to provide complete energy solution for
10 building managers. And to do so you have to be
11 able to work with their building energy management
12 system for the -- able to work with their onsite
13 generation of DER and also curtailable loads.

14 COMMISSIONER BOYD: Question, Mr.
15 Chairman.

16 CHAIRMAN KEESE: Commissioner Boyd.

17 COMMISSIONER BOYD: Mr. Patterson, as
18 the Chairman indicated in introducing the item,
19 the agenda says \$345,000, and the item, itself,
20 makes reference to an amendment in the amount of
21 354,000. Which number is correct?

22 MR. PATTERSON: It's 345,000 is the
23 correct amount.

24 COMMISSIONER BOYD: 345.

25 CHAIRMAN KEESE: Thank you for reading,

1 Commissioner Boyd.

2 COMMISSIONER BOYD: I do, on occasion.

3 CHAIRMAN KEESE: Do we have a motion?

4 COMMISSIONER GEESMAN: I'd move the
5 item.

6 CHAIRMAN KEESE: Motion, Commissioner
7 Geesman.

8 COMMISSIONER BOYD: Second.

9 CHAIRMAN KEESE: Second, Commissioner
10 Boyd.

11 All in favor?

12 (Ayes.)

13 CHAIRMAN KEESE: Opposed? Adopted four
14 to nothing.

15 Item 12, Urenco Power Technologies,
16 Limited. Possible approval of contract 500-03-
17 033 for 891,000 to demonstrate the benefits of
18 using a 400 kilowatt flywheel system for electric
19 energy storage, et cetera. Good morning.

20 MR. KULKARNI: Good morning,
21 Commissioners; I'm Pramod Kulkarni with the PIER
22 industrial/agricultural water program. The energy
23 storage for PIER, however, cuts across several of
24 PIER sectors. And in that capacity, as a manager
25 for that issue, I'm sitting here.

1 We are requesting that the Commission,
2 up to the possible contract, or simply up to the
3 contract number 500-03-033 for \$891,000 to
4 demonstrate the benefits of using a 400 kilowatt
5 flywheel system on the San Francisco Muni Station.
6 And the benefit of that will be potentially
7 demonstrating about 10 to 15 percent savings in
8 the energy use.

9 And if this specific technology
10 demonstration is successfully made, and to the
11 satisfaction of the end users, adopted widely, it
12 could definitely solve some of the problem of
13 condition in the San Francisco Peninsula. So it's
14 one of the benefits of the specific technology.

15 With that I request that I get an
16 approval of this particular contract?

17 CHAIRMAN KEESE: Thank you. I have one
18 question. This is a currently available -- 400
19 kilowatt flywheels are currently available in the
20 market?

21 MR. KULKARNI: It's an emerging
22 technology. They are tried the smaller flywheels.
23 This particular size has not been tried. So this
24 is basically scaling up of existing smaller
25 technology. In fact, this is -- two flywheels of

1 200 kilowatts each. There is not truly a 400
2 kilowatt flywheel, either. But it is scaling
3 above existing technology, which has been proven.

4 CHAIRMAN KEESE: Thank you. Are
5 there --

6 MR. KULKARNI: -- itself.

7 CHAIRMAN KEESE: Thank you.

8 COMMISSIONER GEESMAN: I'd move the
9 item, Mr. Chairman.

10 CHAIRMAN KEESE: Motion, Commissioner
11 Geesman.

12 COMMISSIONER BOYD: Second.

13 CHAIRMAN KEESE: Second, Commissioner
14 Boyd. Further conversation?

15 All in favor?

16 (Ayes.)

17 CHAIRMAN KEESE: Opposed? Adopted four
18 to nothing. Thank you.

19 Regents of the University of California
20 at Davis. Item 13. Possible approval of contract
21 500-01-044, amendment 1, to augment the contract
22 by \$1 million and extend the time by 2.5 years to
23 June 30, 2007. Morning.

24 MR. O'HAGAN: Good morning,
25 Commissioners. This is an item, as the Chairman

1 read, to augment the existing contract to study
2 the effects of pulsed or ramping flows on aquatic
3 species from hydropower facilities.

4 As you know, over 5000 megawatts of
5 hydropower generation within the state is up for
6 relicensing under the Federal Energy Regulatory
7 Commission between now and 2015.

8 The program had convened a group of
9 technical experts on this topic representing the
10 utilities, other stakeholder groups like fly
11 fishermen, whitewater rafters and state and
12 federal agency people to identify high priority
13 research.

14 We prepared a white paper identifying
15 that and released the request for proposals. We
16 have a good response to the request, over 10
17 proposals totaling over \$2 million. The money
18 available we had to fund though was quite less
19 than that.

20 The purpose of the augmentation would be
21 to allow us to fund some of those additional
22 projects that were submitted for the RFP, as well
23 as submit a new RFP this spring. It would also
24 allow us to keep the principal investigator, who
25 is a professor at UC Davis who is working for free

1 on the project. And also it will allow us to get
2 this information out to the community. This topic
3 is a very very controversial issue on FERC
4 relicensing cases. And there's a real need for
5 research, and hopefully to get the research
6 conducted now.

7 CHAIRMAN KEESE: Thank you. We always
8 like free.

9 COMMISSIONER GEESMAN: I'll move the
10 item.

11 CHAIRMAN KEESE: Motion, Commissioner
12 Geesman.

13 COMMISSIONER BOYD: I'll second it.

14 CHAIRMAN KEESE: Second, --

15 COMMISSIONER BOYD: I'd just comment
16 this is a very relevant and timely study, Mr.
17 O'Hagan, very good.

18 CHAIRMAN KEESE: Thank you. Second,
19 Commissioner Boyd.

20 All in favor?

21 (Ayes.)

22 CHAIRMAN KEESE: Opposed? Adopted four
23 to nothing.

24 MR. O'HAGAN: Thank you very much.

25 CHAIRMAN KEESE: Thank you.

1 Item 14, Regents of the University of
2 California, Santa Cruz. Possible approval of
3 contract 500-01-032, amendment 1, to augment the
4 research program by \$1,999,949.

5 MS. SPIEGEL: Good morning.

6 CHAIRMAN KEESE: Good morning.

7 MS. SPIEGEL: My name is Linda Spiegel.

8 This is a continuation of an existing program that
9 is partnered with wind industry, the utilities,
10 state and federal agencies to determine ways to
11 reduce the bird kills; but, in doing so, improve
12 reliability and remove barriers to future
13 transmission and wind development projects.

14 An example of the research that's been
15 very instrumental is we've been developing viable
16 mitigation options for the wind operators at
17 Altamont Pass. And we're now working very closely
18 with Fish and Wildlife and the operators to look
19 at research that will look at the effectiveness of
20 those measures.

21 And the outcome of this will have some
22 really serious consequences towards repowering and
23 increasing capacity at Altamont.

24 So the focus of this program has been to
25 find innovative ways to resolve what's been a very

1 long and ongoing problem. And the program is
2 supported by the wind industry, the utilities,
3 Fish and Wildlife Service, our Siting Division,
4 and has been recommended in the EPR. So, I'd like
5 to recommend approval.

6 CHAIRMAN KEESE: Thank you. And I
7 understand that at least preliminarily, what
8 you've done so far, the avian interactions, as you
9 refer to them, are not random, but it seems as if
10 you'll be able to identify what causes them and
11 make a significant effort to lower them. Is that
12 accurate?

13 MS. SPIEGEL: Yes, that's correct for
14 both the wind strikes, as well as some of the
15 electrocution issues going on.

16 COMMISSIONER BOYD: Mr. Chairman, I
17 would also add that recently some of us were
18 briefed on this issue and it is -- the avian kill
19 issue is getting to be quite a disturbing issue.
20 And, again, this, too, is very relevant research.
21 I'm beginning to wonder if the limiting factor on
22 wind development might become this subject rather
23 than just wind resource availability or something.
24 So anything that can be done to address, identify
25 and maybe mitigate the problem is going to be very

1 necessary in this state if we're to realize the
2 potential from wind development.

3 CHAIRMAN KEESE: Thank you. Do I have a
4 motion?

5 COMMISSIONER GEESMAN: I'll move it.

6 CHAIRMAN KEESE: Motion, Commissioner
7 Geesman.

8 COMMISSIONER BOYD: I'll second it.

9 CHAIRMAN KEESE: Second, Commissioner
10 Boyd.

11 All in favor?

12 (Ayes.)

13 CHAIRMAN KEESE: Opposed? Adopted four
14 to nothing. Thank you.

15 Item 15, University of California Office
16 of the President/CIEE. Possible approval of
17 contract 500-01-043, amendment 1, to add \$2.5
18 million and fund additional work under the tasks,
19 principally demand response.

20 MS. TEN HOPE: Good morning.

21 CHAIRMAN KEESE: Good morning.

22 MS. TEN HOPE: I'm Laurie ten Hope, lead
23 for energy systems integration. And I'm here to
24 ask approval for a contract amendment to this
25 contract with CIEE. It will provide a follow-on

1 for the demand response element and add a new
2 element for communication and control integration.

3 This contract has been going for about
4 16 months. We've had two very successful
5 projects. The first one is to develop a lower
6 cost platform for both thermostats and meters
7 using technologies that have come out of DARPA and
8 NSF, looking at sensors and low cost communication
9 devices. They have been successful in reaching
10 their cost targets and bringing the cost down
11 significantly, which will shrink the platforms and
12 lower the material costs for these materials. And
13 in the long run provide a much lower cost for DR
14 infrastructure.

15 We also have an innovative approach with
16 this contract that encourages the development of
17 more innovative mid- and long-term technologies.
18 It's a very interactive process where proposals
19 come in. There's an opportunity for review and
20 revision of proposals. And encourages a
21 collaboration with both energy and non-energy
22 researchers by providing workshops that train
23 people about what our energy needs are so that
24 people who are developing innovative technologies
25 in other fields know what our problems are in

1 energy and can bring those solutions to some of
2 our problems.

3 So, today I'm asking for approval for
4 this amendment, and ask if you have any questions.

5 CHAIRMAN KEESE: Any questions here? Do
6 I have a motion?

7 COMMISSIONER GEESMAN: I'll move the
8 item.

9 CHAIRMAN KEESE: Motion, Commissioner
10 Geesman.

11 COMMISSIONER BLEVINS: Second.

12 CHAIRMAN KEESE: Second, Commissioner
13 Blevins.

14 All in favor?

15 (Ayes.)

16 CHAIRMAN KEESE: Opposed? Adopted four
17 to nothing.

18 MS. TEN HOPE: Thank you.

19 CHAIRMAN KEESE: Thank you, Ms. ten
20 Hope.

21 Item 16, University of California, San
22 Diego, Scripps Institution. Possible approval of
23 work authorization MR-025 under contract 500-02-
24 004 to continue their research program designed to
25 improve our scientific understanding of potential

1 changes of climate. Morning.

2 MR. FRANCO: Good morning,
3 Commissioners. My name is Guido Franco. I'm with
4 the Public Interest Energy Research program.
5 We're asking you to approve the work authorization
6 with Scripps. They are doing a little work for us
7 on climate monitoring analysis and modeling.

8 I just want to highlight two of the
9 tasks they are going to be doing for us. One of
10 them is to model what has happened in California
11 in the last 50 years to make sure that the
12 regional models that they're using are correct,
13 modeling correctly what's happening in California.
14 And that will be done before we move forward with
15 developing climate projections to find out what
16 may happen with California climate in the next 100
17 years.

18 The regional modeling will be done with
19 taking into account the past changes in
20 urbanization patterns and also the use of
21 irrigation water. As far as I know this is the
22 first type of a study that will be done with a
23 regional model, taking into account these two
24 factors.

25 The second task that I would like to

1 highlight is the Scripps, they're going to be
2 doing a work related to climate detection and
3 attribution studies to find out what has been
4 happening in California for the last 100 years
5 plus. And then to try to find out what fraction
6 of changes are due to natural variability and what
7 fraction of changes are due to anthropogenic
8 effects of greenhouse gas emissions.

9 I think we are again, this is the
10 first -- study that will be done at the regional
11 level. This type of work has been done at the
12 global level. And if we are successful this will
13 be a tremendous piece of information for
14 California. However, it's a research project, and
15 we will find out.

16 With that, I would like to ask you for
17 approval for this work authorization.

18 CHAIRMAN KEESE: Thank you, Mr. Franco.

19 COMMISSIONER BOYD: Mr. Chairman, --

20 CHAIRMAN KEESE: Commissioner Boyd.

21 COMMISSIONER BOYD: -- I'd like to move
22 approval of this item and just comment in that
23 this past weekend Commissioner Rosenfeld and I,
24 Mr. Franco, Mr. Surles attended a gathering of
25 very eminent climate change scientists. And I'm

1 very proud and pleased to comment that the work
2 done at Scripps was one of the highlighted works
3 of discussion there, and was extremely well
4 received; deemed extremely valuable contribution.
5 And I'd like to compliment the PIER Staff and Mr.
6 Franco and Mr. Surles in particular for the work
7 that they have done. I was quite impressed with
8 what they've done and how well it's received.

9 So this phase two of this project, I
10 think, is going to be extremely relevant to our
11 continued study of this issue as it affects
12 California.

13 CHAIRMAN KEESE: Thank you. That was a
14 motion by Commissioner Boyd.

15 MR. FRANCO: Second.

16 (Laughter.)

17 CHAIRMAN KEESE: All in favor?

18 (Ayes.)

19 CHAIRMAN KEESE: Opposed? Adopted four
20 to nothing.

21 COMMISSIONER BOYD: I had Irish tea for
22 breakfast this morning.

23 (Laughter.)

24 CHAIRMAN KEESE: Item 17, University of
25 California, Riverside. This seems to be

1 University of California day. Possible approval
2 of work authorization MR-026 under contract 500-
3 02-004 to administer the air quality research
4 program; not to exceed \$3,512,279. Mr.
5 Birkinshaw.

6 MR. BIRKINSHAW: Good morning,
7 Commissioners; my name is Kelly Birkinshaw. I
8 manage the environmental area of the Public
9 Interest Energy Research program.

10 We currently have about a \$9.5 million
11 portfolio of air quality projects that were
12 previously funded by the Commission. During staff
13 reductions late last year we lost resources that
14 we were relying upon to manage this portfolio.

15 What we're requesting today is a
16 contract with the University of California at
17 Riverside to create an air quality program. In
18 essence we're out-sourcing our air quality
19 program, but insuring that the Commission has
20 oversight in key critical areas.

21 The \$3.5 million we're requesting today
22 will cover first year research projects, as
23 allocated earlier by the R&D Committee, as well as
24 administration for the program for two years. We
25 were successful in attracting Dr. Jim Lents to act

1 as the program director for us; and have oversight
2 by an advisory committee with representation by
3 the Commission, other regulatory agencies such as
4 the districts and the Air Resources Board, as well
5 as other interested stakeholders, as input to the
6 Commission on future projects that might be
7 implemented through this program.

8 So I'd ask that you approve this
9 contract.

10 CHAIRMAN KEESE: Thank you.

11 COMMISSIONER BOYD: Mr. Chairman, I'd
12 move approval.

13 CHAIRMAN KEESE: Motion, Commissioner
14 Boyd.

15 COMMISSIONER BLEVINS: Second.

16 CHAIRMAN KEESE: Second, Commissioner
17 Blevins. Further conversation?

18 All in favor?

19 (Ayes.)

20 CHAIRMAN KEESE: Opposed? Adopted four
21 to nothing. Thank you, Kelly.

22 MR. BIRKINSHAW: Thank you very much.

23 CHAIRMAN KEESE: Item 18, Distributed
24 Utility Associates. Possible approval of contract
25 500-03-034 for \$2,976,437 to test the feasibility

1 and value of co-location and integration of
2 multiple diverse distributed energy resources.

3 Good morning.

4 MR. MICHEL: Good morning,
5 Commissioners. My name is Dave Michel. I'm here
6 to seek possible approval of follow-on contract
7 with Distributed Utilities Associates to do the
8 next phase of testing on a series of issues
9 addressing interactions of multiple and diverse
10 distributed energy resource devices with
11 distribution system, themselves, and loads.

12 This is basically addressing critical
13 issues of safely integrating DER into California's
14 electrical system. This test is being conducted
15 in a controlled laboratory environment at PG&E's
16 test facility in San Ramon, California. The
17 facility is also known as the DUIT test facility.

18 The next series of test that they're
19 proposing to conduct is on voltage regulation and
20 system stability.

21 Thank you.

22 CHAIRMAN KEESE: Thank you. And when
23 you speak of low voltage here, you're talking
24 about the residential distribution system in
25 California? Is that what you're referring to?

1 MR. MICHEL: Residential, commercial and
2 industrial up to 7 NVA.

3 CHAIRMAN KEESE: Thank you.

4 COMMISSIONER GEESMAN: Mr. Chairman, I'd
5 move the item.

6 CHAIRMAN KEESE: Motion, Commissioner
7 Geesman.

8 COMMISSIONER BLEVINS: Second.

9 CHAIRMAN KEESE: Second, Commissioner
10 Blevins.

11 All in favor?

12 (Ayes.)

13 CHAIRMAN KEESE: Opposed? Adopted four
14 to nothing. Thank you.

15 MR. MICHEL: Thank you, Commissioners.

16 CHAIRMAN KEESE: Item 19, Trustees of
17 the California State University. Possible
18 approval of contract 500-98-014, amendment 3, for
19 \$3 million to continue the energy innovations
20 small grant program. Mr. Jenkins.

21 MR. JENKINS: Good morning, Chairman
22 Keese and Commissioners. I'm Alec Jenkins; I
23 manage the energy innovation small grants program.

24 I bring to you, as approved by the R&D
25 Committee, this amendment to extend the small

1 grants program by one year at the same level of
2 funding as the previous year, \$3 million.

3 The interagency agreement is with
4 California State University, which subcontracts
5 with it foundation to manage this.

6 CHAIRMAN KEESE: Thank you. Do I have a
7 motion?

8 COMMISSIONER GEESMAN: So moved.

9 CHAIRMAN KEESE: Motion, Commissioner
10 Geesman.

11 COMMISSIONER BLEVINS: Second.

12 CHAIRMAN KEESE: Second, Commissioner
13 Blevins.

14 All in favor?

15 (Ayes.)

16 CHAIRMAN KEESE: Approved four to
17 nothing.

18 Now, let's look at the results. Item
19 20, Trustees of the California State University.
20 Possible approval of ten grant applications
21 totaling \$749,083 through the energy innovations
22 small grant program in response to solicitation
23 cycle 03-02. Mr. Jenkins.

24 MR. JENKINS: Thank you, Chairman. This
25 is a response to the results from the solicitation

1 cycle 03-02. There were 54 grant applications.
2 These are the top ten. They have been reviewed
3 with the R&D Committee and we bring them to you
4 for approval.

5 CHAIRMAN KEESE: Thank you. As I
6 understand, this is your 16th presentation of the
7 small grant proposals?

8 MR. JENKINS: I skipped a few of the
9 earlier ones.

10 (Laughter.)

11 CHAIRMAN KEESE: Thank you. Do I have a
12 motion?

13 COMMISSIONER GEESMAN: I will make the
14 motion, but I do want to clarify --

15 CHAIRMAN KEESE: Motion, Commissioner
16 Geesman.

17 COMMISSIONER GEESMAN: -- this is not
18 dependent upon or really even connected to item
19 19. These are the results of an earlier --

20 CHAIRMAN KEESE: Earlier, correct.

21 COMMISSIONER GEESMAN: I will move the
22 item.

23 CHAIRMAN KEESE: Motion, Commissioner
24 Geesman.

25 COMMISSIONER BLEVINS: Second.

1 CHAIRMAN KEESE: Second, Commissioner
2 Blevins.

3 All in favor?

4 (Ayes.)

5 CHAIRMAN KEESE: Opposed? Adopted four
6 to nothing. Thank you.

7 Item 21, Powerlight Corporation.

8 Possible approval of contract 500-03-035 for
9 \$1,214,389 to research, develop and demonstrate an
10 advanced tracking system for photovoltaics. Mr.
11 Simons.

12 MR. SIMONS: Good morning,
13 Commissioners. I'm George Simons with the PIER
14 renewables area. I'm here to request approval of
15 a contract with Powerlight Corporation to develop
16 an advanced PV tracker system that will help lower
17 the cost of PV for commercial scale applications
18 and increase reliability.

19 One of the biggest problems facing PV is
20 its high initial cost. And so consequently we try
21 to get every single kilowatt hour out of PV
22 installations that we can, and especially the high
23 value electricity during the peak hours.

24 One of the benefits of PV, of course, is
25 that the generation profile closely matches the

1 peak of the daily load profile, and particularly
2 the peak. One of the problems, though, is that
3 the tail-ends tend to get cut off with fixed flat
4 plate systems.

5 And so in the past the PV industry has
6 looked at using tracking systems to go ahead and
7 try to get to the edges and get more of the peak
8 electricity. The problem has always been the
9 tracking systems, because they're mechanical, tend
10 to have problems, mechanical problems and
11 reliability problems. And because they were
12 always tied to single several modules they were
13 relatively expensive for the amount of electricity
14 generated.

15 Powerlight has come up with a very
16 innovative approach to go ahead and put a number
17 of these systems in line on a single axis tracker.
18 What this does is it not only enables you to get
19 more electricity, but to get more electricity at
20 reduced costs.

21 Powerlight also has acquired a
22 proprietary and patented single axis tracking
23 system that will have improved reliability,
24 mechanical reliability.

25 And so what this will do is essentially

1 reduce the cost of electricity from commercial
2 scale generally greater than 300 kilowatts up to
3 about a megawatt and a half PV applications by
4 about 35 percent. It will increase the mechanical
5 reliability by 65 percent.

6 This is a sole source with Powerlight.
7 We chose to go with sole source for a number of
8 reasons. First is that it benefits the ratepayers
9 of California to help reduce the cost of PV.
10 Secondly is that Powerlight is the single largest
11 supplier of single axis tracker systems in
12 California, as well as the nation.

13 Third is the fact that they own
14 exclusive rights to this patented technology, and
15 there are no other similar systems. And fourth is
16 that Powerlight has a proven track record for
17 accomplishing results on schedule, on budget with
18 us, and they tend to repay royalty payments to the
19 State of California for the developed projects.

20 And so I would request approval of this
21 item.

22 CHAIRMAN KEESE: Thank you.

23 COMMISSIONER GEESMAN: I'll move the
24 item.

25 CHAIRMAN KEESE: Motion, Commissioner

1 Geesman.

2 COMMISSIONER BOYD: Second.

3 CHAIRMAN KEESE: Second, Commissioner
4 Boyd. Any conversation?

5 All in favor?

6 (Ayes.)

7 CHAIRMAN KEESE: Opposed? Adopted four
8 to nothing. Thank you.

9 MR. SIMONS: Thank you.

10 CHAIRMAN KEESE: Item 22, California's
11 Electricity System. Possible adoption of the
12 findings on the cost of integrating renewables
13 into California's electricity system. Mr. Simons.

14 MR. SIMONS: We're here to -- the staff
15 to recommend adoption of the phase one reports out
16 of the integration study. The genesis of the
17 integration study was as early as November 2002
18 when we began to look at intermittent resources.

19 We convened a working group, or a
20 methods group is what we called them, in January
21 of 2003. This is a group of independent experts
22 from Oak Ridge, from NREL, the Cal-ISO, and the
23 California Wind Energy Collaborative, to come up
24 with methods for evaluating the costs of
25 integrating renewable energy in California.

1 The criticalness of this, of course, is
2 that under the RPS guidelines the best-fit/least-
3 cost approach cost for renewables have to be taken
4 into account on a total cost basis. The indirect
5 costs, which are a small portion of the overall
6 costs, had not been assessed. And so this group
7 was really looking at what would be the costs of
8 integrating and operating renewables.

9 As you know we're moving rapidly towards
10 hopefully a procurement process for the RPS in the
11 mid part of this year, and so it's critical to get
12 integration costs assessed and finalized.

13 The methods group developed a process in
14 April. They went out for a public workshop in
15 April of 2003. They released a preliminary report
16 in June 2003. They came out on September 12th
17 with a draft report and held a public workshop on
18 the draft report. They received some comments.
19 And again on October 9th released a draft phase
20 one report for public comment.

21 Just around that time, by the way, the
22 California Public Utilities Commission, under
23 decision 0306071, indicated the results from the
24 phase one study should be used as proxies for its
25 selection process under the RPS.

1 On December 10th the draft final report
2 was released. And then the Commission and the
3 working group decided to hold a second public
4 workshop on February 20th of 2004.

5 There were a number of comments received
6 in the public workshops, as well as under the
7 draft final reports. In the February 20th
8 workshop we had seven written comments. I won't
9 go through each of those comments because I think
10 there are some parties here who would like to make
11 their own comments.

12 I will summarize that at least one
13 party, Southern California Edison, had some major
14 concerns with the report. Their concerns were
15 that the methods were not transparent because the
16 findings were based on Cal-ISO data sets that are
17 not publicly available. They believe that the
18 results are not replicable. They hired a
19 consultant to do their own study. And the values,
20 in particular for capacity credit for the
21 renewables, in particular wind, ranged from 11.5
22 percent to 15 percent versus the 22 to 26 percent
23 under the phase one study.

24 However, I do want to point out that
25 under that study conducted by SCE they did look at

1 year 2003 and they came up with very similar
2 results, on the order of about 22 percent.

3 SCE also had a concern that regulation
4 and load following values obtained in the phase
5 one study were substantially lower than similar
6 results.

7 I do want to point out, though, that
8 most of the parties agreed that it was important
9 not to delay the RPS bid selection. Most agreed
10 that the values determined in the phase one study,
11 with the exception of the effective load carrying
12 capacity values for solar thermal electric plants,
13 should be adopted as proxies for use in the RPS
14 bid selection.

15 Most parties agreed that phases two and
16 three should be completed as quickly as possible
17 to provide more simple and transparent methods
18 using publicly available data sets. And in
19 addition, most parties wanted phases two and three
20 to look at some of the issues that have been
21 discussed for phase two and three, in particular
22 the impacts of scheduling bias by the Cal-ISO,
23 increased renewables penetration and lower overall
24 system reserves.

25 Most parties agreed that integration

1 costs should be updated annually, and in a process
2 based on public input, public review. At least
3 one party, the Office of Ratepayer Advocates,
4 corroborated that they had independently found
5 similar values for the wind ELCC identified in the
6 phase one report.

7 There were some other specific concerns
8 with the report. In particular that the ELCC
9 values for solar thermal electric plants should
10 not be used in the bid selection process, which is
11 one of the recommendations in the phase one
12 report. The next phase should look into
13 evaluating the value of capacity and possibly
14 capacity payments.

15 One party also felt that integration
16 costs developed by the report are not good
17 substitutes for actual integration costs. And
18 that evaluations of integration costs best be done
19 on a case-by-case basis. And that the bid
20 selection process should choose a balanced
21 approach.

22 In light of the comments that we've
23 received on the phase one report, we believe that
24 there's no methodology that's perfect or fits
25 everyone's needs. However, the results obtained

1 in the phase one report were developed using sound
2 approaches by independent experts. The values for
3 ELCC were corroborated by an independent analysis
4 by ORA. The CPUC decision on moving forward with
5 the RPS bid selection process predicates the use
6 of phase one results as proxies. Phase two and
7 three will develop similar methods -- or excuse
8 me, simpler methods that are transparent, reliable
9 and use publicly available data sets.

10 And consequently, we strongly recommend
11 the adoption of the phase one report in its
12 entirety including the recommendation that the
13 ELCC values for solar thermal plants not be used
14 in the bid selection process.

15 CHAIRMAN KEESE: Thank you for a very
16 thorough report. Any questions here before we
17 move to members of the audience who wish to speak
18 to this issue?

19 COMMISSIONER GEESMAN: I'll just make a
20 comment.

21 CHAIRMAN KEESE: Commissioner Geesman.

22 COMMISSIONER GEESMAN: I found the
23 report, when it came out last fall, to be a
24 significant advance in the state of knowledge of
25 this subject. And a very good effort by a

1 talented team of contractors that George put
2 together to try and bring some data and analysis
3 to an area that previously has largely been
4 plagued by anecdote and shoot-from-the-hip
5 observations.

6 I did not participate in the September
7 workshop but I did read the writeup of the earlier
8 workshop, and also the contractors' responses to
9 the various written comments and workshop comments
10 that have been raised. And I believe those were
11 included as an appendix to the December report.

12 Commissioner Boyd and I conducted a
13 workshop in February on the report which I thought
14 had a substantial amount of value, as well.

15 The scenario where -- although I think
16 we've made a very good initial effort, there's
17 more to come. We're going to all learn together
18 in this as we go into phase two and phase three.
19 I think one of the notable aspects that George has
20 accomplished here is to enlist a very high level
21 of valuable coordination with the ISO. And their
22 data has been an invaluable contribution to a
23 better understanding of this subject.

24 I would throw out a couple of caveats,
25 though, because the integration costs are by no

1 means the entire equation; or even for that
2 matter, a large part of the equation at the PUC.
3 They do not account for whatever transmission
4 adder is developed for the solicitation. They
5 don't represent any indication as to the market
6 price referent that will be used in the
7 solicitation. And they don't attempt or purport
8 to provide guidance as to how the overall, least-
9 cost/best-fit mechanic will be applied. But they
10 nevertheless represent a very valuable input to
11 the solicitation and they've brought, I think, a
12 lot of illumination to an area that previously has
13 been pretty shadowy.

14 CHAIRMAN KEESE: Thank you. Mr. Tanton.
15 Welcome back, sir.

16 MR. TANTON: Good morning,
17 Commissioners, and a belated welcome to
18 Commissioner Blevins.

19 COMMISSIONER BLEVINS: Thank you.

20 MR. TANTON: My name is Tom Tanton; I'm
21 here representing Vulcan Power and Sylvan Power.
22 We support the adoption of the report as written.
23 Our concern is both with respect to the timing of
24 phase two and three juxtaposed with the RPS
25 solicitations. And perhaps more importantly, a

1 specific recognition that the numbers, although
2 the subject of a tremendous analysis by staff and
3 the working group, are subject to uncertainty.

4 Our concern is that a probablistic
5 analysis has been transformed into a point
6 estimate of what those costs are. And provided
7 that the least-cost/best-fit analysis recognizes
8 that uncertainty, we're in full support of
9 adoption of the report today for phase one.

10 CHAIRMAN KEESE: Thank you. Mr.
11 Alvarez.

12 MR. ALVAREZ: Thank you, Commissioners,
13 for the opportunity to present this information to
14 you.

15 As Mr. Simon mentioned, we did have some
16 concerns with the report. And we look forward to
17 phase two and phase three processes to kind of
18 resolve some of those issues.

19 We stand by our concerns with the report
20 and look forward to kind of moving forward and the
21 progress we're going to make during phase two.

22 What I want to bring to your attention
23 today is that this work is basically a work in
24 progress. And it's attempting to resolve the
25 integration issues as the state confronts its

1 renewable portfolio standard.

2 And since the report represents only
3 phase one, the other two phases are important for
4 the Commission to take into consideration.

5 During the workshop, you know, we raised
6 these issues, and we think they need some
7 additional consideration. What we'd like you to
8 do basically is address these issues in phase two
9 and phase three. It is my understanding the
10 Committee has directed those efforts to be
11 undertaken.

12 With that being said, I am recommending
13 that the Committee take note of the preliminary
14 nature of the report, and that it allow future
15 results of phase two and phase three to be
16 incorporated into any final action. And that
17 would include any solicitation that takes place
18 during the coming year.

19 The report, itself, notes the need to
20 refine and finalize the results in subsequent
21 phases. The Commission should note no less.

22 Thank you.

23 CHAIRMAN KEESE: Thank you very much.

24 Mr. White.

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

1 Commissioners. My name is John White, and I'm
2 representing the Center for Energy Efficiency and
3 Renewable Technologies here today.

4 First we want to thank the Commission
5 and its staff for once again completing its work
6 on time and giving us hope that we can have
7 progress this year with regard to renewable
8 portfolio standard solicitation.

9 This is one, as Commissioner Geesman and
10 Mr. Simon pointed out, this is one of the factors
11 that has to be part of the solicitation. So
12 adopting it is a part of moving forward.

13 Other than Edison, we don't think
14 there's substantial issues raised substantively by
15 any of the parties. And Edison's work was
16 submitted too late to provide an opportunity for
17 public comment. So we look forward to having its
18 documents vetted as we go forward in phase two.

19 As was mentioned, though, by George, the
20 process envisioned originally was for an iterative
21 development of this information. But this is a
22 very good piece of work with a lot of coordination
23 and integration among the contractors and with the
24 ISO. I'm glad that Edison believes in
25 transparency and openness of data, given that we

1 saw so little with respect to the Mountainview
2 project. I'm glad that they're seeing the virtue
3 of openness and confidentiality on everybody
4 else's project, as well.

5 But the issues aren't that great that
6 divide the parties. There are issues that are
7 going to need to be considered. More than
8 anything, though, we want this to move forward,
9 and the existing process followed. I think the
10 results from the process of the solicitation we
11 hope will inform the future process.

12 And one of the things we most want is to
13 get experience with real bids under the terms of
14 the law. And as we move forward, all of these
15 things, from the market price reference to the
16 transmission adders, are going to evolve. But we
17 don't need to get it perfect to do an initial set
18 of solicitations. And that's really what we hope
19 adoption of this report will lead to.

20 Thank you very much.

21 CHAIRMAN KEESE: Thank you, Mr. White.

22 COMMISSIONER GEESMAN: I'll move the
23 item.

24 CHAIRMAN KEESE: Motion, Commissioner
25 Geesman.

1 COMMISSIONER BOYD: Second.

2 CHAIRMAN KEESE: Second, Commissioner

3 Boyd. Is there any other further comment?

4 Hearing none, all in favor?

5 (Ayes.)

6 CHAIRMAN KEESE: Opposed? Adopted four

7 to nothing.

8 Item 23, Clean Energy Systems, Inc.

9 Possible approval of contract 500-01-013,
10 amendment 3, for \$2 million to demonstrate the
11 durability and reliability of a 5 megawatt, zero
12 emission, gas-fired power plant using Clean Energy
13 Systems' technology. Good morning.

14 MR. BYER: Good morning, Commissioners,
15 I'm John Byer; I work in the PIER program in the
16 environmentally preferred advanced generation
17 group. And I'm the Commission Contract Manager on
18 the existing contract with Clean Energy Systems.

19 I would like to note a typo here. This
20 is amendment number 2, not number 3, as stated.

21 And furthermore, that --

22 CHAIRMAN KEESE: Thank you.

23 MR. BYER: -- there never was an
24 amendment 1. It was something we started working
25 on about a year ago, never concluded, and was

1 never approved. So, in fact, this is the first
2 amendment. It's called number 2 by our contracts
3 office.

4 This interesting project started as one
5 of our small grants projects several years ago.
6 Then was funded in response to an EPAG
7 solicitation. And it's changed significantly and
8 interestingly more recently, which is the reason
9 for this amendment.

10 Clean Energy Systems has developed this
11 unique combustor they call a gas generator, which
12 provides a way to generate electricity with a gas-
13 fired system, which produces no emissions. And
14 also makes for efficient separation of CO2, which
15 can then be sequestered, or better yet, used for
16 enhanced oil recovery if it's near an appropriate
17 oil field.

18 What has changed is that originally
19 Clean Energy Systems was planning to demonstrate
20 their gas generator at Mirant's power plant in
21 Contra Costa County near the Antioch bridge. With
22 Mirant's bankruptcy that's no longer possible.

23 At the same time CES has been able to
24 purchase a 5 megawatt power plant near
25 Bakersfield. The plant is called Kimberlina. And

1 so now the plan is to demonstrate at that
2 facility, at ten times the power rating.

3 They'll be using the same gas generator,
4 which, incidentally, was developed with Department
5 of Energy funding. They are very interested in
6 this project, as well.

7 In demonstrating at 5 megawatts rather
8 than only 500 kilowatts, this has generated
9 interest from a southern California oil company,
10 from a Norwegian company that says if this works
11 we'll build a 40 megawatt plant in Norway. You
12 could say why do we care about that. Well,
13 demonstrated at 40 megawatts anywhere in the world
14 we would bring that back here to the United
15 States. And SMUD is interested, Sacramento
16 Municipal Utility District. I've had calls from
17 our old friend, Mike DeAngelis, to brief him about
18 how this project is proceeding. And he's very
19 interested in this 5 megawatt demonstration.

20 The increased funding specifically from
21 originally \$2 million to now this amendment, an
22 additional \$2 million, for a total of 4 million,
23 is because we are going to this much larger
24 facility and this much larger demonstration.

25 There are increased personnel costs, plant costs

1 and fuel costs for this demonstration. But it's
2 demonstrated as ten times the power.

3 Matched funding also has gone up very
4 significantly, from an original matched funding
5 level of \$2 million by Clean Energy Systems and
6 its project partners, to now about \$6.5 million,
7 for a total of \$8.5 million in matched funding on
8 the project.

9 There are some unique aspects to this
10 regarding equipment for repowering the Kimberlina
11 Power Plant and modifying it for this CES gas
12 generator. There will be about \$1.8 million in
13 equipment that will be leased. It will be an
14 industrial lease. CES will pay for half of that.

15 As I have worked out with the R&D
16 Committee, the Commission will pay up to \$900,000
17 for this industrial lease. Furthermore, we will
18 make that payment upfront rather than in standard
19 monthly lease payments. There are two good
20 reasons for that.

21 One is it means that we do not be a
22 party to the lease, which would subject us to
23 early termination payments should the project be
24 terminated early for some reason. And secondly,
25 it frees up about \$230,000 in interest. That

1 money is in the budget to be used for additional
2 testing, which is precisely what we want to see.

3 Regarding this lease, the R&D Committee
4 wanted some special conditions. These have now
5 been inserted into the terms and conditions by our
6 legal office and contracts office. These special
7 conditions are that we, in fact, will not be a
8 party to the lease; that we, however, must approve
9 any lease agreement signed by CES; and
10 furthermore, we've established some provisions
11 whereby if the project is terminated early and the
12 equipment is sold to recover money, we will share
13 on a pro rata basis with Clean Energy Systems any
14 money generated from such a sale.

15 I don't believe that additional lease
16 information is in your briefing package which is
17 why I'm presenting it now. But it was approved by
18 the R&D Committee. It has been implemented, and
19 it is in the terms and conditions.

20 If you have any questions I'd be glad to
21 answer.

22 COMMISSIONER BOYD: Mr. Chairman,
23 question.

24 CHAIRMAN KEESE: Thank you.
25 Commissioner Boyd.

1 COMMISSIONER BOYD: Mr. Byer, or maybe
2 Mr. Birkinshaw might have to get into this, as
3 well, question number one about the -- this is a
4 very intriguing, obviously to me, research project
5 both with regard to zero emission and now
6 specifically the efficient separation of CO2.

7 Are there any plans at the present time
8 with regard to what to do with the sequestered CO2
9 in this research project?

10 And I'll bridge over to the second
11 question, which is -- and I see Kelly approaching
12 the table -- we have, of course we're one of the
13 recipients of the DOE sequestration demonstration
14 projects, and our host oil company is down in the
15 Bakersfield area. Is there any possibility that
16 this project would have anything to do with that
17 project in terms of a source of sequestered CO2
18 for research and development.

19 And if not that, then I'll just have to
20 hope that some day there's a power plant down
21 there of this design, the zero emission, that
22 helps facilitate that project, or the aftermath of
23 that project, if it's a positive outcome.

24 MR. BYER: Let me answer your first
25 question and then turn it over to Kelly.

1 Sequestration of CO2 was not actually
2 part of this project, per se. That would be a
3 subsequent phase that CES is planning to take on.
4 Because they do intend to continue using this
5 Kimberlina facility as a test facility for their
6 technology of subsequent phases, an early one,
7 yes, being sequestration of CO2, or better yet,
8 there are oil fields within five miles that could
9 benefit from the CO2 for enhanced oil recovery.

10 And it's because of these reasons that
11 this project could become a precursor or
12 eventually part of the CO2 partnership
13 demonstration project.

14 From there I'll let Kelly continue.

15 MR. BIRKINSHAW: Yeah, I think I would
16 just second that comment. As you know, a key
17 element of the carbon sequestration partnership is
18 to do the analysis and assessment of carbon
19 sequestration options here in the western United
20 States as the first phase of a phase two
21 technology demonstration that we would then apply
22 to at the Department of Energy.

23 Certainly we're very early in this
24 process, really, of just the assessment of these
25 opportunities. But at least at this juncture we

1 see this project and this technology as one of the
2 candidates that we want to look at carbon
3 sequestration and could very well be a part of the
4 phase two proposal that we submit to the
5 Department of Energy a couple years from today.

6 COMMISSIONER BOYD: Thank you. I would
7 just like to note that Mr. Birkinshaw has done a
8 really outstanding job on that sequestration
9 research project. I was in the company of some
10 people recently who were commenting on our award,
11 indicating how our staff hammered everybody over
12 these proposals. So you did a real good job,
13 thank you.

14 MR. BYER: Thank you very much.

15 CHAIRMAN KEESE: Thank you. Any further
16 questions?

17 COMMISSIONER BLEVINS: Mr. Chairman, I
18 just wanted to note that a few minutes ago we
19 adopted the annual PIER report, and on the second
20 page of that report is a chart that I find
21 remarkable. And I think it underscores the real
22 importance of this work. And I compliment the
23 staff on pursuing these technologies.

24 CHAIRMAN KEESE: Thank you.

25 COMMISSIONER GEESMAN: I'll move the

1 item.

2 COMMISSIONER BOYD: Second.

3 CHAIRMAN KEESE: Motion, Commissioner
4 Geesman; second, Commissioner Boyd.

5 All in favor?

6 (Ayes.)

7 CHAIRMAN KEESE: Opposed? Adopted four
8 to nothing.

9 MR. BYER: Thank you.

10 CHAIRMAN KEESE: Thank you. Minutes.
11 We have the minutes from March 3rd. Do I have a
12 motion?

13 COMMISSIONER GEESMAN: So moved.

14 CHAIRMAN KEESE: Motion, Commissioner
15 Geesman.

16 COMMISSIONER BLEVINS: Second.

17 CHAIRMAN KEESE: Second, Commissioner
18 Blevins.

19 All in favor?

20 (Ayes.)

21 CHAIRMAN KEESE: Opposed? Adopted four
22 to nothing.

23 Item 25, Commission Committee and
24 Oversight.

25 COMMISSIONER GEESMAN: I had an item,

1 Mr. Chairman.

2 CHAIRMAN KEESE: Commissioner Geesman.

3 COMMISSIONER GEESMAN: I had a
4 predictable, but very disappointing, experience in
5 the City of Carson last night. I went down to
6 address their City Council, which was considering
7 a motion which they ended up passing, which was to
8 oppose, in their words, any potential
9 recommendations for petroleum infrastructure
10 permit streamlining to flow from the Legislature
11 this year.

12 I think, by implication, they were also
13 opposing the recommendation in our 2003 IEPR.
14 It's an outgrowth of some discussions which we
15 have initiated through the League of Cities with
16 jurisdictions currently surrounding existing
17 refineries in both northern and southern
18 California. And also something that came to the
19 Council's attention at the behest of Communities
20 for a Better Environment and an offshoot of that
21 group in Wilmington with whom we'll be meeting in
22 the next week, again in northern California and
23 in southern California, in parallel sessions.

24 And the point of my comments, other than
25 to provide some general context from which our

1 recommendation in the IEPR had sprung, was to also
2 indicate that I thought that it was premature for
3 the City to take a position on something where a
4 dialogue was just in its early stages. And that
5 there would be ample opportunity in the weeks and
6 months ahead to formally determine if they were
7 supportive or opposed.

8 And to some extent they acknowledged
9 that by directing their staff to participate in
10 these futures meetings. They do want to be
11 involved.

12 But what I found very troubling was that
13 the general sentiment from the Council and the
14 members of the public that testified was even
15 acknowledging the difficult situation which both
16 citizens of Carson, as well as all of California,
17 face at the gas pump today, they felt that there
18 had been enough infrastructure in Carson. As one
19 woman put it, they were tired of doing something
20 for the common good.

21 And I think that reflecting on some of
22 the meetings that all of us have been in here the
23 last couple of weeks surrounding the spike in
24 gasoline prices, and also focused on some of the
25 information that came up and recommendations that

1 were made in the Attorney General's panel session
2 in Los Angeles last week, where it was explicitly
3 discussed that California should seriously
4 reconsider reliance on Carb3 gasoline during times
5 of crisis. And that's on the table now.

6 And I would suggest to you that is a
7 very slippery slope to proceed down. Who
8 determines when the crisis starts? Who determines
9 when it ends? And what are the consequences? Not
10 just to the investments that have been made in
11 refining capability to manufacture Carb3, but what
12 are the public health consequences. And will we
13 ever get back to those higher quality fuels if we
14 suspend the requirements during times of crisis?

15 I think the IEPR made pretty clear that
16 since 1997 when we became a product importer, the
17 situation has worsened. And that our product
18 imports were likely to double over the course of
19 the next ten years.

20 We've adopted, I think, a very sound
21 plan as it relates to our long-term future, in
22 terms of trying to reduce petroleum demand and to
23 develop alternatives to petroleum use in the
24 transportation sector.

25 But we've got some very serious problems

1 in the near- to medium-term. And I think it's
2 incumbent on each of us to try and raise the
3 visibility of this issue. The status quo is
4 unsustainable. And I think that while it is
5 understandable that local jurisdictions are going
6 to have concerns about their role in resolving
7 these issues in the future, I think from a state
8 government standpoint, state government has been
9 absent without leave in the infrastructure
10 permitting area here.

11 And we've taken some steps in the IEPR
12 to point that out. If we're going to have any
13 follow-through at all, I think each of us needs to
14 raise the visibility of these concerns among the
15 public.

16 CHAIRMAN KEESE: Thank you. That's well
17 stated. The assumption seems to be that there is
18 no consideration of the environmental
19 consequences. And as we witness as we go through
20 our power plant siting, that couldn't be further
21 from the truth.

22 COMMISSIONER GEESMAN: Well, what's
23 particularly troubling is that the City of Carson
24 in 1986 had, I think from having reviewed the
25 decision and the record, a very successful

1 experience with our siting process in the Watson
2 Cogeneration facility, where each of the City's
3 concerns, each of their requirements were
4 incorporated into the permit. And the record
5 reflects a considerable enthusiasm on the City's
6 part for both the project and the process.

7 And despite attempting to make clear
8 that that is the model which the state would
9 envision applying to petroleum infrastructure,
10 there's an overwhelming sentiment that, not in
11 Carson, we've done enough. And yet that policy is
12 going to perpetuate the problems that Californians
13 have faced at the pump the last several years.

14 We're now in our sixth one of these
15 price seizures. And each time we go through one I
16 think the economy is shaken a little bit more, and
17 I know the governance process is shaken a bit
18 more.

19 CHAIRMAN KEESE: Thank you. Anything
20 else on Commission --

21 COMMISSIONER BOYD: Well, Mr. Chairman,
22 I might -- I don't want to comment any more on
23 what Commissioner Geesman has said, other than a
24 lot of scars on my body are reacting to the
25 comments, so I appreciate the dilemma that has

1 been pointed out. And I think as we worked on the
2 IEPR and the 2007 and '6 report, we detected a lot
3 of this dilemma.

4 And, of course, until we hear back from
5 the Governor on the Integrated Energy Policy
6 Report, I'm wont to say anything about what we
7 might do or could do in responding to that. I'm
8 frankly feeling fairly confident that we're going
9 to get a positive reaction to the need to address
10 the issue.

11 But, nonetheless, within let's say the
12 powers that we have as an agency, Chairman Lloyd,
13 of the Air Resources Board, and I have had quite a
14 number of discussions over the past few months
15 about the need to improve the energy/air quality
16 interface. Not to say that there's anything
17 wrong, it's just that in this day and age, and as
18 indicated by some of these varied kinds of
19 activities, there just seems to be a greater need,
20 and a strong feeling on my part, while we have a
21 good working relationship with the Air Resources
22 Board, the link between us, the ARB and the local
23 air districts is wanting some.

24 And I can say, based on a lot of years
25 experience in the air quality area, that I don't

1 think there's a total understanding and
2 appreciation of the energy issues, and therefore
3 the whole interconnection between environment,
4 particularly air quality, energy and the economy
5 of the state.

6 And the bottomline is we mutually agreed
7 that our two agencies ought to probably sponsor
8 some kind of colloquium forum, symposium, meeting
9 or what-have-you involving local air districts,
10 the State Board, and ourselves sometime in the
11 not-too-distant future, to work on that
12 understanding of things.

13 I'm not sure that this will trickle down
14 to the issue that Commissioner Geesman brings up,
15 although I kind of think it will. Because there's
16 a lot of commonality between memberships on local
17 city councils and/or boards of supervisors and the
18 membership of local air districts. And maybe some
19 additional education could take place there.

20 But it certainly is a dilemma and I
21 appreciate what John must have gone through last
22 night, as well as his bringing the issue up today.
23 But perhaps in various ways we'll try to address
24 the issue somewhat.

25 CHAIRMAN KEESE: Thank you. Chief

1 Counsel's report.

2 MR. BLEES: Thank you, Mr. Chairman and
3 Commissioners. I have three items today.

4 First, just in case you hadn't heard,
5 Mr. Chamberlain had surgery on Monday. He will be
6 out of the office for a couple of weeks. But he
7 will be reviewing his email and periodically
8 checking in. It was for a chronic foot condition.
9 Hopefully this will get him back backpacking.

10 The second matter is that I request a
11 closed session to discussion potential litigation
12 under Government Code section 11126(e). A memo on
13 this matter was distributed to you earlier this
14 week. We should --

15 CHAIRMAN KEESE: We will have that
16 closed session upon adjournment here.

17 MR. BLEES: Thank you. And third, I
18 have a report on an important development in
19 litigation on air conditioners.

20 As you might recall, in the waning days
21 of the Clinton Administration the U.S. Department
22 of Energy raised the federal efficiency standard
23 for residential size central air conditioners from
24 SEER 10 to SEER 13. However, not too long after
25 that the Bush Administration DOE rolled back the

1 standard to SEER 12.

2 Those actions prompted two lawsuits in
3 the federal circuit courts. In the Second
4 Circuit, the Natural Resources Defense Council and
5 several states, including California, challenged
6 the rollback from SEER 13 to SEER 12. And
7 recently the Second Circuit ruled that the
8 rollback was not proper.

9 In the Fourth Circuit, however, a
10 lawsuit was filed by the Air Conditioning and
11 Refrigeration Institute, that's the trade
12 association for air conditioner manufacturers.
13 And ARI was also joined by several individual
14 manufacturers. And they collectively challenged
15 the legality of the SEER 13 standard.

16 Last week Carrier Corporation, which was
17 one of the individual plaintiffs, withdrew from
18 the suit. And today ARI and the remaining
19 individual manufacturers have announced that they
20 are also withdrawing and will seek voluntary
21 dismissal.

22 The bottomline is that now there is a
23 clear federal SEER 13 standard for residential air
24 conditioners, which will take effect on January
25 23rd of 2006.

1 One of the implications for the Energy
2 Commission, in addition to the obvious energy
3 efficiency benefits, concerns our own state
4 residential air conditioner standards. The
5 Commission has also adopted a state SEER 13
6 standard, along with various air conditioner
7 standards for EER and other factors, as well.
8 Because residential air conditioners are federally
9 regulated, the state standards can't become
10 effective until DOE grants a waiver from federal
11 preemption.

12 We've been working on a waiver of
13 preemption for all of the state air conditioner
14 standards, SEER, EER and the others. As a result
15 of the dropping of ARI's challenge to the federal
16 SEER 13 standard we can remove that from our
17 waiver petition now.

18 CHAIRMAN KEESE: What date do our
19 standards -- or what date did the 13 become
20 effective under our standards?

21 MR. BLEES: Originally there are two
22 tier standards, and the first tier goes into
23 effect in 2005; and the second in 2006. January
24 1st in both instances.

25 CHAIRMAN KEESE: So my question would be

1 would it be appropriate for us to align our 13
2 standard with their 13 standard?

3 MR. BLEES: Yes, it would.

4 CHAIRMAN KEESE: As far as effective
5 date is concerned.

6 MR. BLEES: Yes. It certainly would,
7 and that's something that we'll take up in the
8 ongoing appliance rulemaking.

9 CHAIRMAN KEESE: Okay. And then so that
10 takes care of the 13. And then you're suggesting
11 we would continue to seek the waiver?

12 MR. BLEES: For the -- there are
13 standards --

14 CHAIRMAN KEESE: For the EER --

15 MR. BLEES: -- for different levels of
16 EER standard, as well as COP and HSP for heat
17 pumps, and a requirement for a TXV piece of
18 equipment in air conditioners.

19 CHAIRMAN KEESE: Correct.

20 MR. BLEES: And we would certainly move
21 ahead for the waiver petition on all of those.

22 Finally, I want to make clear that as
23 welcome as this development is, it does not,
24 unfortunately, affect another appliance lawsuit
25 which ARI and the other major appliance

1 manufacturer trade associations filed in the Ninth
2 Circuit. That is the suit in which they are
3 claiming that the Energy Commission's regulations
4 on appliance data submittal and marking are
5 preempted.

6 That suit is ongoing and the trade
7 associations appear to have no current plans to
8 drop that.

9 CHAIRMAN KEESE: Thank you.

10 MR. BLEES: That completes my report.

11 CHAIRMAN KEESE: Thank you. Mr.
12 Therkelsen, Executive Director's report.

13 MR. THERKELSEN: Good morning,
14 Commissioners. A couple things. Just in response
15 to Commissioner Boyd's comment, Scott Matthews and
16 Grace Anderson are both working on the Energy/Air
17 Summit concept, so we hope to get that underway
18 sometime soon.

19 The other comments I had, I mentioned
20 earlier that the ECAA bond is now down to zero.
21 And we wanted to recognize Daryl Mills and the
22 staff, not only in the efficiency division, but
23 the legal office and also the financial services
24 branch, for the excellent work they've done in
25 terms of getting that effort underway; creating

1 that and getting it underway, and getting the
2 money out the door.

3 Likewise, with respect to PIER, we have
4 allocated all of the PIER funds for this year.
5 And that count is now down to zero. And really
6 appreciate, again, the hard work of the PIER
7 people to get that organized and moving. And the
8 long hours the Committee spent sitting in
9 Committee meetings of listening to all the plans,
10 proposals and working that through with them.

11 The last comment I have is earlier this
12 week we had an opportunity to, actually that was
13 wrong, it was last week -- anyway, we had an
14 opportunity to brief members of the California
15 Performance Review on Energy. They asked to get
16 some information, background information on what
17 the energy situation is in the state; some of the
18 issues that the state is facing. And Thom Kelly
19 and Karen Griffin provided that briefing to them.
20 I sat in on a good portion of it.

21 But a lot of the members have questions
22 on energy. They have a number of teams or task
23 forces. One of them is on energy. One's on R&D;
24 one on infrastructure; one on resources; and there
25 are a couple others. And they are planning to

1 interview folks. In some cases they will be
2 contact you, as individuals, to interview you on
3 those subjects. They'll also be interviewing
4 people on the outside.

5 So, they're trying to get around and get
6 their work done. I understand that they're trying
7 to shoot for getting a draft product completed
8 sometime around the end of May. So, be aware, you
9 may get a phone call.

10 And that's --

11 CHAIRMAN KEESE: Would you give us the
12 name of the organization again? Or the --

13 MR. THERKELSEN: It's the California
14 Performance Review. It's the effort that Governor
15 Schwarzenegger initiated --

16 CHAIRMAN KEESE: Yeah, and are they
17 operating under the Governor's aegis, or --

18 MR. THERKELSEN: Yes, they are.

19 CHAIRMAN KEESE: Okay.

20 MR. THERKELSEN: Yes. There are 240
21 folks that have been tapped in state service to be
22 involved in that.

23 Al Garcia is one of the individuals that
24 submitted his name as an individual, and was asked
25 to serve on that committee.

1 CHAIRMAN KEESE: Thank you.

2 COMMISSIONER BOYD: I should note, Mr.
3 Chairman, that they got to me this past Monday, I
4 guess, for about an hour and a half discussion of
5 R&D. And they intend to come back and talk to, I
6 think, all of us eventually about, as you
7 indicated, a host of issues.

8 MR. THERKELSEN: Right.

9 CHAIRMAN KEESE: Thank you. Any
10 additional --

11 MR. THERKELSEN: That's it.

12 CHAIRMAN KEESE: Public Adviser's
13 report.

14 MR. THERKELSEN: Margret had to run to
15 another appointment, but she asked me to make a
16 public service announcement that we are planning
17 to have a workshop on aging power plants on
18 Wednesday, March 24th, as one of the kickoff items
19 on the 2004 IEPR update.

20 CHAIRMAN KEESE: Thank you. Any public
21 comment? Seeing none, this meeting is adjourned,
22 subject to our meeting in my office in Executive
23 Session on a matter involving litigation.

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

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 22nd day of March, 2004.

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