

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, APRIL 23, 2008

10:03 A.M.

Reported by:
Peter Petty
Contract Number: 150-07-001

COMMISSIONERS PRESENT

Jackalyne Pfannenstiel, Chairperson

Arthur H. Rosenfeld

Jeffrey D. Byron

Karen Douglas

STAFF and CONTRACTORS PRESENT

Melissa Jones, Executive Director

William Chamberlain, Chief Counsel

Marni Weber, Legislative Manager

Harriet Kallemeyn, Secretariat

Bill Pfanner

Donna Stone

Raoul Renaud

Valentino Tiangco

Susan Aronhalt

Virginia Lew

Daryl Mills

Paul Roggensack

Rob Hudler

Mazi Shirakh

Bill Pennington

PUBLIC ADVISER

Nick Bartsch

ALSO PRESENT

Jane E. Luckhardt, Attorney
Downey, Brand Attorneys, LLP

Scott Galati
Galati, Blek, LLP

Patrick Split
App-Tech, Inc.

William T. Callahan
Associated Roofing Contractors

Martha "Marty" J. Dunham
Enterprise Roofing Service, Inc.

Erik Emblem
Joint Committee on Energy and Environmental Policy

Robert E. Raymer
California Building Industry Association

Reed Hitchcock
Asphalt Roofing Manufacturers Association

Michael S. Hindus
Pillsbury, Winthrop, Shaw, Pittman, LLC
Tile Roofing Institute

Jeff Ferrell
Occupational Safety and Health Asbestos Unit
Department of Industrial Relations
State of California

Craig Lease
L&L Suppliers, Inc.

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1 P R O C E E D I N G S

2 10:03 a.m.

3 CHAIRPERSON PFANNENSTIEL: Good morning.
4 This is the Energy Commission business meeting of
5 April 23rd. Please join me in the Pledge of
6 Allegiance.

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

9 CHAIRPERSON PFANNENSTIEL: Big crowd
10 this morning. Couple changes to the agenda. Item
11 number 4 has been held, and item number 12 has
12 been held.

13 Let me see, we do not have the consent
14 calendar this morning, so starting with item
15 number 1, possible approval of the Executive
16 Director's data adequacy recommendation for Beacon
17 Solar LLC's application for certification of the
18 Beacon Solar Energy project. Good morning.

19 MR. PFANNER: Good morning. My name's
20 Bill Pfanner; I'm the Project Manager for the
21 Beacon project. And I have with me today our
22 Staff Attorney Jared Babula.

23 The Beacon Solar Energy project, on
24 March 14th, the Energy Commission received their
25 application for certification. The project is

1 proposed to be a concentrated solar electric
2 generating facility proposed on approximately a
3 2000-acre site in Kern County.

4 The project would use parabolic trough
5 solar thermal technology to produce electrical
6 power using a steam turbine generator fed from a
7 solar steam generator. And the project would have
8 a nominal electrical output of 250 megawatts.

9 Staff has completed the data adequacy
10 review of the AFC and has determined it does not
11 meet all the requirements listed in Title 20,
12 section 1704, division 2, chapter 5, appendix B of
13 California Code of Regulations for a 12-month
14 process.

15 Therefore, we are recommending that the
16 Energy Commission find that the AFC is inadequate
17 and adopt the attached list of deficiencies. Of
18 the 23 technical disciplines staff identified that
19 there were six areas that were deficient. And
20 that's air quality, biology, cultural resources,
21 geologic hazard, land use and socioeconomics.

22 Staff has provided the detailed
23 worksheets of all technical disciplines; and at
24 this time the staff is recommending that the
25 adopted list of deficiencies for the AFC be

1 considered. And then staff would ask the
2 applicant to submit the specified information for
3 making the application data complete.

4 Just informally, the AFC was very
5 thorough; an excellent job done by the applicant.
6 The six areas that were data inadequate, the
7 applicant has got that information in to us.
8 Staff is reviewing it at this time, and we
9 anticipate coming back on the May 6th agenda for
10 recommendation of data adequacy.

11 CHAIRPERSON PFANNENSTIEL: Thank you,
12 Mr. Pfanner. Just as an aside, do you find that
13 the review of the solar energy projects is any
14 different kind of review? Is it putting a
15 different area of expertise needed in the staff?
16 Or is it pretty much as the fossil plants have
17 been?

18 MR. PFANNER: Well, this is my first
19 solar project, and it's so early in the game, I
20 would say it's premature for me to answer that.

21 CHAIRPERSON PFANNENSTIEL: Fine, thank
22 you. Ms. Luckhardt.

23 MS. LUCKHARDT: Hi, Jane Luckhardt on
24 behalf of FPL Energy this morning. We're pleased
25 in working with staff on creating a data adequate

1 application, and hope to return here in early May
2 for that determination.

3 CHAIRPERSON PFANNENSTIEL: Thank you.
4 So we have the Executive Director's recommendation
5 that it be found not data adequate at this time.
6 Is there a motion to that effect?

7 COMMISSIONER BYRON: I'll move the item.

8 COMMISSIONER ROSENFELD: Second.

9 CHAIRPERSON PFANNENSTIEL: All in favor?

10 (Ayes.)

11 CHAIRPERSON PFANNENSTIEL: Thank you,
12 both.

13 MR. PFANNER: Thank you.

14 CHAIRPERSON PFANNENSTIEL: Item 2,
15 possible approval of petition to modify the Energy
16 Commission decision for the Roseville Energy Park
17 to allow changes to the NOx emission reduction
18 credits sources. Good morning.

19 MS. STONE: Good morning. Donna Stone,
20 Compliance Project Manager on this project. And
21 with me is Compliance Attorney Kevin Bell.

22 Roseville is requesting a modification
23 to allow the use of volatile organic compound
24 emission reduction credits at a ratio of 2.6-to-1,
25 plus a distance ratio of 1.3-to-1 for a total

1 ratio of 3.38-to-1 for the nitrogen oxides.

2 They're requesting approval to remove
3 conditions associated with energy 2001, which was
4 a local landfill. And conditions associated with
5 Sacramento Metropolitan Air Quality Management
6 District bank NOx emission reduction credits, and
7 replace them with a condition that allows the use
8 of interpollutant exchange for VOC emission
9 reduction credits and NOx in the manner previously
10 stipulated in the Commission's final decision.

11 The VOC purchase would slightly exceed
12 the amount necessary to offset the NOx limit of
13 31.09 tons per year. And Roseville would propose
14 to bank the excess emission reduction credits.

15 No NOx emission reduction credits will
16 be obtained from energy 2001 because they could
17 not create the emission reduction credits. They
18 could not get the gas needed to operate SCR clean
19 enough, so it made that use infeasible.

20 And then the Sacramento Metropolitan Air
21 Quality Management District did not have
22 sufficient NOx credits available to meet the needs
23 of Roseville Energy Park facility.

24 Both of those sources were anticipated
25 viable sources at the time of the decision.

1 Staff reviewed the petition and
2 concluded that there would be no new or additional
3 significant impacts associated with the approval
4 of the petition. That the proposed changes were
5 based and are based on information that was not
6 available during the original licensing project.

7 And the proposed language retains the
8 intent of the original Commission decision and
9 conditions of certification.

10 Staff is recommending minor changes to
11 conditions of certification air quality-4 and air
12 quality-7; and they're recommending a new
13 condition air quality-9.5.

14 This petition to modify was filed with
15 the Energy Commission and docketed on January
16 24th. A notice of receipt was mailed to the post-
17 certification mailing list and the affected public
18 agencies on the 28th of January. And posted to
19 the Commission's website and docketed.

20 The staff analysis was docketed, mailed
21 to interested parties and posted to the
22 Commission's website on March 5th.

23 The federal Environmental Protection
24 Agency requested a 45-day review period, which was
25 up on April 17th. They found no need to comment.

1 And, to date, no comments have been received from
2 any parties.

3 The Placer County Air Pollution Control
4 District is planning to approve this modification;
5 and they are, in fact, using our condition that
6 staff wrote.

7 The findings on this were that the
8 petition meets all the filing criteria of section
9 1769(a) concerning post-certification mailing
10 project modifications. The modification will not
11 change the findings in the Energy Commission's
12 final decision pursuant to section 1755.

13 The project will remain in compliance
14 with all applicable laws, ordinances, regulations
15 and standards subject to the provisions of the
16 Public Resources Code section 25525. This change
17 will be beneficial to the project owner because it
18 will enable them to operate the plant more
19 efficiently and up to the permitted levels. They
20 have currently been operating at curtailed levels.

21 The change is based on information that
22 was not available to the parties prior to the
23 Commission certification. At the time of
24 certification it was expected that the local
25 landfill would install and operate an ammonia-

1 injected selective catalytic reduction for an
2 onsite landfill gas-to-energy facility.

3 However, they were not able to clean the
4 sulfur contaminants from the landfill gas, thereby
5 making the use of the SCR system impractical,
6 which eliminated them as a source for obtaining
7 ERCs.

8 And the Sacramento Metropolitan Air
9 Quality Management District denied the application
10 from Roseville Electric for the NOx ERCs.

11 Roseville has purchased VOC ERCs from
12 Sacramento Municipal Utility District and proposes
13 to trade them for the NOx ERCs needed to satisfy
14 the offset requirements of the condition of
15 certification. This is consistent with the
16 original Commission decision which allowed for the
17 trading of VOC ERCs for NOx offsets at a ratio of
18 2.61 plus the Placer County Air Pollution Control
19 District distance ratio.

20 Staff is recommending that the Energy
21 Commission approve the project and associated
22 revisions to the air quality conditions of
23 certification.

24 CHAIRPERSON PFANNENSTIEL: Thank you,
25 Ms. Stone. Mr. Galati.

1 MR. GALATI: Scott Galati representing
2 Roseville Electric. We reviewed staff's analysis
3 and we agree with the conditions of certification
4 as modified by staff, and ask the Commission to
5 approve this amendment.

6 CHAIRPERSON PFANNENSTIEL: Thank you.
7 Questions? Discussion?

8 COMMISSIONER BYRON: Commissioner --
9 excuse me, Madam Chairman, Commissioners, the
10 Siting Committee did review this application for
11 change. And we do concur with the staff's
12 findings and recommendations. So I would move the
13 staff's recommendation to accept these changes.

14 COMMISSIONER DOUGLAS: And I would
15 second the motion.

16 CHAIRPERSON PFANNENSTIEL: All in favor?
17 (Ayes.)

18 CHAIRPERSON PFANNENSTIEL: Thank you,
19 all.

20 MR. GALATI: Thank you.

21 CHAIRPERSON PFANNENSTIEL: Item 3,
22 possible adoption of the Presiding Member's
23 Proposed Decision and errata for the Colusa
24 Generating Station, a nominal 600 megawatt,
25 combined cycle power plant to be located in Colusa

1 County.

2 MR. RENAUD: Good morning, Madam
3 Chairman, Members of the Commission. Thank you.
4 My name's Raoul Renaud; I'm the Hearing Advisor
5 for this matter.

6 We have today the possible adoption of
7 the PMPD. Just briefly, this application for
8 certification was filed in November 2006, and
9 found data adequate in December 2006. The
10 applicant was E&L West Coast, LLC.

11 The staff issued its final staff
12 analysis in November 2007, and the Committee held
13 evidentiary hearing on January 23, 2008. The
14 Committee conference was held April 14, 2008, and
15 the errata, at that time, was finalized.

16 And before you today then is possible
17 approval of the decision and the errata. If you
18 have any questions for me, I'll be happy to try
19 and answer.

20 CHAIRPERSON PFANNENSTIEL: Questions for
21 Mr. Renaud? Mr. Galati, do you have any --

22 MR. GALATI: Scott Galati representing
23 PG&E. As you know, PG&E acquired this asset in
24 the middle of the process. We would like to, at
25 this point in time, thank a couple of members very

1 specifically, Mr. Caswell and Mr. Ratliff. We
2 think that they did some yeoman's work in
3 processing some late changes to the project that
4 allows the project to continue and try to meet its
5 construction schedule.

6 We'd also like to thank the Committee
7 for producing a PMPD in a very quick timeframe.
8 And we appreciate that, as we're committed to
9 start construction as soon as humanly possible.

10 CHAIRPERSON PFANNENSTIEL: Thank you.
11 Now, the last remaining member of the Committee is
12 Commissioner Boyd who is out ill today. But with
13 no other comments, is there a motion?

14 COMMISSIONER BYRON: First of all I
15 can't help but note, Mr. Galati, weren't you just
16 up on the last item --

17 (Laughter.)

18 COMMISSIONER BYRON: -- representing
19 another customer?

20 MR. GALATI: Yes, I was.

21 COMMISSIONER BYRON: Yes. Well, let us
22 know if you have any difficulty determining how to
23 bill these clients of yours, okay?

24 (Laughter.)

25 MR. GALATI: I have no difficulty with

1 that.

2 (Laughter.)

3 COMMISSIONER BYRON: You know,
4 unfortunately Commissioner Boyd is ill today, and
5 he could not be here, so this decision falls to
6 the Siting Committee. And I plan to move the
7 item, but not without a comment or two.

8 First of all, I think it's always
9 important to compliment the efforts of the staff
10 and the applicant in working through all these
11 issues. I understand, Mr. Renaud, we have no
12 outstanding issues here?

13 MR. RENAUD: No, they've all been worked
14 out and it was a considerable effort between the
15 staff and the applicant doing that. They did a
16 great job.

17 COMMISSIONER BYRON: Well, and so in
18 that case I'd like to thank you all very much for
19 that. I have to say something, though, with
20 regard to an interest I took in this project when
21 it was first announced about two years ago.

22 I was working on the customer side of
23 the meter, actually I was chairing the Silicon
24 Valley Leadership Group's Energy Committee at the
25 time. And we took great interest in a news

1 release that announced the procurement for that
2 year. I believe it was the 06 procurement.

3 This one, as I recall, this particular
4 project was a build-own transfer which kind of
5 caught our eye about the procurement process.
6 And, in fact, we asked PG&E if they wouldn't mind
7 coming in and answering some questions and
8 explaining that to us.

9 We even got hold of the independent
10 reviewer who works on the procurement review group
11 -- have trouble with that one. And, of course,
12 we're not parties to that. We do not participate
13 in those closed meetings that require
14 nondisclosure agreements.

15 I'm not questioning our process here at
16 all. I think this was all done properly. But I
17 do have some concerns about, and continue to have
18 concerns as a Member of this Commission, about the
19 procurement process and the way it proceeds.

20 And my understanding is that PG&E did
21 need to acquire the rights to this plant
22 development earlier than they had intended. Don't
23 know the reasons around that; we don't get into
24 the financial aspects of that here in this
25 Commission.

1 But I certainly hope that my colleagues
2 at the Public Utilities Commission are doing their
3 job thoroughly in looking out for the interests of
4 consumers in keeping costs down.

5 I do not expect you to respond to that,
6 Mr. Galati. But I am still concerned about this,
7 and making sure that we continue to improve the
8 procurement process so that we don't have these
9 kind of questions and concerns on behalf of the
10 consumers.

11 Having said that, unless anyone else
12 wants to comment, I will move the item for
13 approval.

14 CHAIRPERSON PFANNENSTIEL: Is there a
15 second?

16 COMMISSIONER ROSENFELD: Second.

17 CHAIRPERSON PFANNENSTIEL: All in favor?

18 (Ayes.)

19 CHAIRPERSON PFANNENSTIEL: It's been
20 approved.

21 MR. RENAUD: And just for the record to
22 clarify what was being moved is that both the PMPD
23 and the errata are adopted?

24 CHAIRPERSON PFANNENSTIEL: PMPD and the
25 errata, yes.

1 COMMISSIONER BYRON: I am sorry, --

2 CHAIRPERSON PFANNENSTIEL: It was raised
3 as that.

4 COMMISSIONER BYRON: Yes, you provided
5 me the language and I failed to say it. Thank
6 you.

7 MR. RENAUD: Thank you.

8 MR. GALATI: Thank you.

9 CHAIRPERSON PFANNENSTIEL: Item 5,
10 possible approval of two proposals totaling
11 \$699,357 in response to Public Interest Energy
12 Research renewables program 2007 biopower R&D
13 grant solicitation.

14 Project (a) Growpro, Inc., dba Cal-
15 Forest Project, \$199,500. Develop and operate a
16 wood gasification system in a commercial
17 environment in northern California. We'll start
18 with that one. Good morning.

19 DR. TIANGCO: Good morning,
20 Commissioners. My name is Valentino Tiangco; I'm
21 the Senior Technical Lead of the PIER renewables
22 program. And with me is Abolghasem Edalati who
23 will be working with me on this project.

24 We are here to request your approval for
25 these two research, development and demonstration

1 biopower projects.

2 As way of background, on July 31, 2007,
3 the PIER renewables program released a program
4 opportunity notice and application package for
5 biopower RD&D grant solicitation. The program
6 opportunity notice announced that up to \$1 million
7 was available from the PIER program to fund
8 biopower projects as grants for the development of
9 promising biopower technologies that can utilize
10 thermochemical conversion pathways for any
11 advanced biomass-to-electricity conversion
12 technologies using forest residues, to help reduce
13 catastrophic wildfires in the state.

14 Proposed projects should be focused
15 primarily on power production, however co-
16 production of heat and other value-added products
17 was encouraged in this solicitation.

18 On the proposal due date of October 12,
19 2007, the Energy Commission received five
20 proposals requesting over \$1.8 million, and
21 providing over \$2 million in matching
22 contributions.

23 In accordance with the 2007 application
24 package for this solicitation, each proposal was
25 screened for completeness and reviewed by Energy

1 Commission Staff. No proposal was rejected from
2 the administrative screening process.

3 Then the technical advisory committee
4 reviewed, evaluated and scored these five
5 proposals in December 2007, using the criteria
6 prescribed in the application package; and
7 recommended to fund these two biopower projects.

8 On January 29, 2008, the Commission's
9 RD&D Committee approved the notice of proposed
10 awards and recommended funding. Then the notice
11 of proposed awards and recommended funding was
12 posted on the Energy Commission website on January
13 31, 2008. These awards were also presented to the
14 Transportation Committee on February 13, 2008.

15 As a way of description, the first
16 project, Growpro, Inc., will develop and operate a
17 wood gasification system in a commercial
18 environment in northern California for \$199,500.
19 This project will demonstrate the simplified
20 application of an existing and highly developed
21 gasification technology using forest residue.

22 This technology will be upgraded with
23 automatic fuel dryer, feeding system and
24 controls. The system will be operated for an
25 extended period of time for both power and co-

1 production of heat for greenhouse gas use.

2 The second project, UC San Diego project
3 and their team will demonstrate an advanced
4 thermochemical gasification of biomass. They will
5 integrate the cogeneration of power from forest
6 woodwaste using an advanced thermochemical
7 gasification process in parallel with the
8 production of high value-added product, mixed
9 alcohol, primarily ethanol, for blending with
10 gasoline.

11 In this demonstration project research
12 and development issues related to technological --
13 and scientific baseline knowledge in areas of
14 gasifier operation, producer gas combustion
15 properties, producer gas cleanup, engine
16 performance and emissions; and engineering
17 simulation -- will be investigated.

18 What are we getting from these two
19 projects? This proposed awards will help achieve
20 the Governor's executive order S0606, the
21 bioenergy action plan, AB-32, and the RPS target
22 goals.

23 In addition, this proposed awards
24 supports the 2007 and 2005 Integrated Energy
25 Policy Report which recognizes the strategic value

1 of biomass.

2 This proposed awards will also meet the
3 PIER goal of improving the energy cost value of
4 California's electricity by providing a low-cost,
5 high-efficiency, distributed power generation
6 using forest residues.

7 Reducing catastrophic wildfires has
8 become a top priority and is of critical
9 importance in the state, reducing greenhouse gases
10 and limiting the resulting emissions at very low
11 levels.

12 Thank you. I'll be happy to answer your
13 questions.

14 CHAIRPERSON PFANNENSTIEL: Thank you. I
15 probably should read part (b) into the record. I
16 only read through part (a).

17 Part (b) is University of California San
18 Diego projects: Power generation using advanced
19 thermochemical gasification of biomass, \$499,857.

20 With that, are there questions on either
21 of these projects?

22 COMMISSIONER BYRON: None.

23 CHAIRPERSON PFANNENSTIEL: None?

24 COMMISSIONER ROSENFELD: This came
25 before the R&D Committee and I'm happy to move the

1 item.

2 COMMISSIONER BYRON: I'm, as well. I'm
3 pleased to see these kind of projects. It looks
4 like excellent work, and I look forward to the
5 results from it. So, I'll second it.

6 CHAIRPERSON PFANNENSTIEL: Let me just
7 ask, are there comments from others?

8 It's been moved and seconded.

9 All in favor?

10 (Ayes.)

11 CHAIRPERSON PFANNENSTIEL: Thank you,
12 all.

13 DR. TIANGCO: Thank you.

14 CHAIRPERSON PFANNENSTIEL: Item 6,
15 possible approval of contract 200-07-007 for
16 \$150,000 with the Department of Finance to audit
17 the Public Interest Energy Research program. DOF
18 will review the Energy Commission's operation of
19 the PIER program, provide recommendations for
20 improvement, issue a report on any deficiencies,
21 and recommend corrective action. Good morning.

22 MS. ARONHALT: Good morning. I'm Susan
23 Aronhalt, the Energy Commission's Budget Officer.
24 This proposed contract will be with Finance's
25 Office of State Audits, an evaluation.

1 The audit will be a complete
2 programmatic audit of the Energy Commission's
3 operations of the PIER program, which will include
4 our operating processes and adherence to state
5 laws and procedures. It will culminate with a
6 list of findings and recommendations for
7 improvement.

8 The review will begin in May, with field
9 work completed in October, and a final report due
10 in December.

11 CHAIRPERSON PFANNENSTIEL: Thank you.
12 We do have one member of the public who'd like to
13 speak on this. Patrick Splitt of App-Tech, Inc.
14 Mr. Splitt.

15 MR. SPLITT: Good morning; I'm Pat
16 Splitt from App-Tech. I just wanted to make one
17 comment. And that is that I wonder if you have
18 more money to do other audits, or if the budget's
19 so tight that this is the only audit you're doing
20 to be doing.

21 If so, I'd recommend that instead of
22 auditing the PIER group, that the audit should be
23 of the CEC's building and appliance office. I
24 know people that are familiar with both groups and
25 the way they work.

1 And all the people I know, and I,
2 personally, think that if you want to solve some
3 problems around here, your money would be much
4 better spent trying to figure out what's wrong
5 with the buildings and appliances office, and
6 auditing them.

7 CHAIRPERSON PFANNENSTIEL: Comment?

8 COMMISSIONER BYRON: What's wrong with
9 the office of building and appliances?

10 MR. SPLITT: Well, I've been sending you
11 a lot of my opinions of what I think is wrong with
12 it. The way they handle the performance method
13 calculations are a joke. To spend money on
14 legally required compliance programs that are
15 required by law, and know that they're not going
16 to go into effect until six months after the
17 regulations go into effect, is ridiculous. If
18 they know they're not going to put them out there
19 when people can use them, why spend the money?

20 I'm an energy consultant; I deal every
21 day with the application of these regulations.
22 And I can tell you, they may, on paper, look like
23 they're saving energy, but they're not being
24 implemented. They're too complicated. The
25 manuals are not useful for the people who need to

1 use them.

2 I mean I could go on and on, but I think
3 I've probably mentioned the problems with them
4 already. And I think from what I know of the PIER
5 organization, what I know about this other office,
6 that buildings and appliances are the ones that
7 need to be audited. And I'm sure you'll find a
8 lot to fix once they are audited.

9 CHAIRPERSON PFANNENSTIEL: Thank you,
10 Mr. Splitt. I would like to make a comment about
11 the proposed audit.

12 And that's that it really resulted from
13 discussions when the new Executive Director came
14 into her office and we discussed areas that we
15 just wanted to make sure, going forward, that we
16 were totally comfortable with. I didn't imply any
17 issue that we saw, but it's that the PIER program
18 is financially complicated, involves many
19 entities, many consultants, and processes that are
20 way beyond my ability to understand.

21 And so we decided that it would probably
22 be best to bring in some outsiders to look at the
23 processes and give us any -- make any
24 recommendations, if there are any, on things that
25 we could do to improve how we do what we do.

1 There's a lot of money that changes
2 hands there, and we just wanted to make sure it
3 was being done as efficiently and effectively as
4 possible.

5 With that, other questions? Yes,
6 Commissioner Byron.

7 COMMISSIONER BYRON: Since you made that
8 decision I have heard both publicly and privately
9 from at least one member of our Senate who has
10 expressed some concern about the use of contract
11 dollars in our PIER program.

12 And, of course, as a Commissioner, I
13 would like to know if there's any abuse. So I
14 applaud the Chair's initiative in this contract to
15 conduct such an audit.

16 I'd also be very surprised if there's
17 any findings. But it's important to maintain the
18 integrity of this organization -- I'm sorry, this
19 Commission. So I certainly endorse this, and
20 notwithstanding, I would also, of course, be
21 interested in investigating further on my own Mr.
22 Splitt's comments with regard to other
23 organizations -- I'm sorry, other divisions within
24 our agency, as well.

25 We take this very seriously. And as I

1 said, I think it's extremely important to do this
2 in order to maintain our integrity as a
3 Commission.

4 So, I'd be happy to move the item.

5 COMMISSIONER ROSENFELD: I'm happy to
6 second it.

7 CHAIRPERSON PFANNENSTIEL: Are there any
8 other discussions -- is there any discussion?

9 Moved and seconded.

10 All in favor?

11 (Ayes.)

12 CHAIRPERSON PFANNENSTIEL: Thank you.

13 Item 7, possible approval of a
14 \$1,368,646 loan for energy efficiency upgrades
15 including replacement of five central plants and
16 the retrofit of several lighting systems at Shasta
17 College. Good morning, Ms. Lew.

18 MS. LEW: Thank you, Chairman. Good
19 morning, Commissioners. My name is Virginia Lew;
20 I'm with the public programs office.

21 This loan will help the District upgrade
22 its 40-year-old central plant with new high
23 efficiency chillers and boilers, cooling towers
24 and variable speed drive pumps.

25 The loan will also be used to retrofit

1 the lighting to more energy efficient types, and
2 install premium efficiency motors and other
3 miscellaneous projects.

4 These projects will reduce the campus'
5 annual electricity consumption by 17 percent and
6 greenhouse gas emissions by over 400 tons
7 annually.

8 These projects have been reviewed for
9 technical and economic feasibility by our
10 engineering staff and those of PG&E. We have
11 determined that this loan request meets all the
12 requirements under the Energy Conservation
13 Assistance Act.

14 This loan is also consistent with the
15 Energy Commission's 2007 Integrated Energy Policy
16 Report to reduce energy and greenhouse gas
17 emissions implementing cost effective energy
18 projects.

19 The Efficiency Committee approved this
20 item on April 17th, and staff is seeking your
21 approval today. I'll be happy to answer any
22 questions at this time.

23 CHAIRPERSON PFANNENSTIEL: Thank you,
24 Virginia. This is another one of our good news
25 projects, I think, where we take money

1 specifically set aside for energy efficient, cost
2 effective energy efficient loans, and find those
3 who are willing to undertake the effort.

4 I see it's a ten-year payback, meaning,
5 I assume, that PG&E has put some of the money into
6 it.

7 MS. LEW: Yes.

8 CHAIRPERSON PFANNENSTIEL: And what is -
9 - a 17 percent reduction in energy usage sounds
10 fairly significant. What's the biggest benefit
11 there? Where are we getting most of those
12 savings?

13 MS. LEW: Most of the savings are coming
14 from the upgrade of the central plant. So, by
15 replacing the chillers and all of the ancillary
16 equipment associated with that central plant,
17 that's where most of the savings are coming from.

18 CHAIRPERSON PFANNENSTIEL: Thank you.
19 Questions? Discussion?

20 COMMISSIONER ROSENFELD: On behalf of
21 the Committee I'm happy to move the item.

22 COMMISSIONER DOUGLAS: I'll second it.

23 CHAIRPERSON PFANNENSTIEL: All in favor?

24 (Ayes.)

25 CHAIRPERSON PFANNENSTIEL: Thank you,

1 Virginia.

2 MS. LEW: Thank you.

3 CHAIRPERSON PFANNENSTIEL: Item 8,
4 possible approval of an agreement ROY-07-001 with
5 Autodesk, Inc., to pay the Energy Commission
6 \$1,986,199 -- note that that's a change from the
7 published agenda -- for a royalty buyout. The
8 Energy Commission funded the original Public
9 Interest Energy Research for \$993,099 to develop
10 an advanced building energy simulation service for
11 computer assisted design software.

12 Let me turn this over to Mr. Mills for
13 discussion.

14 MR. MILLS: Good morning, Commissioners.
15 I'm Daryl Mills of the energy efficiency research
16 office, and I'm here representing this item for
17 Norm Bourassa of my staff.

18 This item seeks approval to enter into a
19 royalty payment and license agreement with
20 Autodesk, Incorporated. And will result in a
21 payment to the Energy Commission of a little less
22 than \$2 million.

23 Autodesk is a Fortune 1000 company
24 located in San Rafael, California. And in
25 February purchased Green Building Studios. This

1 item is a little different than most that we bring
2 before you, in that we're in a position to
3 actually receive money rather than to send it out
4 to someone else.

5 The payments are a result of the royalty
6 provisions in some PIER contracts that we have
7 with Green Building Studio. Normally, receiving
8 royalties does not require us to come back for
9 approval from the Commission. It's a normal thing
10 and built into our contracts.

11 However, this is a little different
12 because we're actually getting a payment from a
13 company that we do not have a contract with,
14 Autodesk. And the company's also seeking
15 clarification of the royalty provisions to make
16 sure that they have a clean title for Green
17 Building Studio's product they have purchased.

18 This agreement assigns the Autodesk a
19 license to the intellectual property. The sale to
20 such a large company with a huge market share of
21 the computer design industry, it will further the
22 commercialization of this product and increase
23 market penetration.

24 Autodesk, Incorporated, is a world
25 leader in two-dimensional and three-dimensional

1 design software for manufacturing, building and
2 construction. And they have media and
3 entertainment products, as well.

4 One of its major products is a computer-
5 aided design product called AutoCad, which is
6 widely used in the design and engineering
7 community to design buildings. Autodesk is
8 purchasing a PIER-funded web-based product that
9 can be initiated directly from the AutoCad
10 software. And it allows designers, early in the
11 design process, to actually do what-if and improve
12 their designs as they're going through the
13 process.

14 The public benefit of this added utility
15 to AutoCad, it will be quite far reaching, in that
16 AutoCad is about 60 percent of that market in the
17 world. And it's likely that this capability will
18 extend across the commercial construction industry
19 fairly extensively.

20 Under PIER royalty provisions
21 organizations can either pay 1.5 percent of the
22 revenues received from these products over a 15-
23 year period, or they can opt to pay the Commission
24 twice the amount that we put into the R&D product.
25 Under this agreement Autodesk is paying two times

1 the amount of the PIER funding invested.

2 The Energy Commission funded the
3 original Public Interest Energy Research in three
4 separate contracts. This royalty agreement
5 represents the first time we've gotten a buy-out
6 using the two-time provision.

7 The proposed payment fills the royalty
8 provisions in the previous research agreements
9 with Green Building Studio, Incorporated; and will
10 be deposited in the PIER account to fund future
11 research projects.

12 The agreement was crafted with the
13 assistance of our legal office. And I'd
14 particularly like to thank Allan Ward who worked
15 with the Autodesk attorneys in crafting this
16 agreement.

17 And I recommend that we get authority to
18 receive this check, and enter into this agreement.
19 And I'm available to answer any questions.

20 CHAIRPERSON PFANNENSTIEL: Thank you,
21 Daryl. I just want to confirm something. That
22 the decision on the two times payment, as opposed
23 to the 15-year payout, is a decision of the
24 company that received the money from us?

25 MR. MILLS: Yes, it's optional in our

1 contract --

2 CHAIRPERSON PFANNENSTIEL: But it's
3 their decision, not ours --

4 MR. MILLS: Yes, --

5 CHAIRPERSON PFANNENSTIEL: On how we --

6 MR. MILLS: -- it's their decision.
7 They are exercising that agreement. Just wanted
8 to be clear, since they purchased Green Building
9 Studios, that all the rights were assigned to
10 Autodesk.

11 CHAIRPERSON PFANNENSTIEL: Right.
12 Questions? Discussion? Comment, Commissioner
13 Byron.

14 COMMISSIONER BYRON: It looks, from all
15 indications, this is a great success, you know, at
16 least for public sector R&D, this is the
17 equivalent of a grand slam in the bottom of the
18 ninth.

19 So, I'd like to congratulate staff; hope
20 it works out very well for Autodesk. Sounds like
21 this will be really beneficial for consumers in
22 general. So, congratulations to staff.

23 COMMISSIONER ROSENFELD: On behalf of
24 the R&D Committee, I move the item.

25 COMMISSIONER BYRON: I'll second it.

1 CHAIRPERSON PFANNENSTIEL: All in favor?

2 (Ayes.)

3 CHAIRPERSON PFANNENSTIEL: Thank you,
4 Daryl.

5 Item 9, possible approval of contract
6 500-07-038 for up to \$650,000 with WateReuse
7 Foundation for research and development projects
8 that will improve energy efficiency of water
9 reuse. Good morning.

10 MR. ROGGENSACK: Good morning,
11 Commissioners. My name is Paul Roggensack; I'm
12 with the PIER industrial, agriculture and water
13 team.

14 The WateReuse Foundation is a nonprofit,
15 subscriber-based association that focuses on
16 research and development for the water reuse
17 industry. Their subscribers consist of wastewater
18 treatment districts and other groups.

19 They have in place an existing research
20 and development program where they solicit bids
21 for water reuse projects, and then they have a
22 contract in process.

23 So what we are proposing is that we
24 collaborate with the WateReuse Foundation to use
25 their existing program to fund up to five R&D

1 projects that address energy efficiency in the
2 water reuse sector.

3 The Energy Commission will participate
4 in the project advisor committees of these five
5 R&D projects. And also will have oversight of the
6 projects, themselves, and the contracting.

7 The project amount is 650,000 for both
8 the Commission and the Foundation, for a total of
9 1.3 million in R&D projects. And this money would
10 be used exclusively for the projects, themselves.
11 There would be no overhead costs. The WaterReuse
12 Foundation will not receive any PIER money. It
13 will strictly be used for the projects,
14 themselves.

15 So, based on that, I request approval of
16 this contract with the WaterReuse Foundation.

17 CHAIRPERSON PFANNENSTIEL: Thank you.
18 Are there questions? Comments?

19 COMMISSIONER DOUGLAS: Comment.

20 CHAIRPERSON PFANNENSTIEL: Comment.

21 COMMISSIONER DOUGLAS: I just wanted to
22 say I got a briefing from the staff on this item,
23 and I'm very supportive of it.

24 Yesterday I was in Los Angeles giving a
25 presentation on the linkages between the water and

1 energy systems, and there are really tremendous
2 benefits for our energy system of low embedded
3 energy water supply options like water reuse.

4 So I'm pleased to see this kind of
5 research. Thank you.

6 COMMISSIONER ROSENFELD: Again, on
7 behalf of the R&D Committee, and with thanks to
8 the staff, I move the item.

9 COMMISSIONER DOUGLAS: I second the
10 item.

11 CHAIRPERSON PFANNENSTIEL: All in favor?

12 (Ayes.)

13 CHAIRPERSON PFANNENSTIEL: Thank you.

14 MR. ROGGENSACK: Thank you.

15 CHAIRPERSON PFANNENSTIEL: Item 10,
16 possible approval of an initial study and adoption
17 of a proposed negative declaration for the
18 environmental analysis for the 2008 building
19 energy efficiency standards. Good morning, Mr.
20 Hudler.

21 MR. HUDLER: Good morning,
22 Commissioners. As part of the California
23 Environmental Quality Act regulations developments
24 for adoption of regulations such as the 2008
25 regulations must be reviewed for potential

1 significant negative environmental impacts.

2 As part of the 2008 adoption process
3 staff did undertake an initial study and prepared
4 a statement of negative declaration in a draft
5 report. And sent that report out for comments for
6 a 30-day period, which we have not received any
7 comments.

8 Basically the findings of that report
9 were that the cumulative effects of the standards
10 would be very positive. In fact, a significant
11 reduction in air emissions. And, of course, there
12 are those benefits of the energy savings in which
13 per-year of construction there would be an
14 estimated 549 gigawatt hours per year of
15 electricity, 18 million therms of natural gas and
16 29 megawatts of electricity demand reduction.

17 Staff has made some minor modifications
18 in the report to be in line with changes that were
19 made to the standards. And staff requests the
20 Commission's approval of the negative dec initial
21 study.

22 CHAIRPERSON PFANNENSTIEL: Thank you.
23 We do have one person who'd like to speak on this
24 item, although the card said only if an issue
25 arises. I'm not sure what that means. Now, okay,

1 does not want to speak at this time.

2 Given that, is there a motion to adopt
3 the negative declaration or are there comments?

4 COMMISSIONER BYRON: May I ask a
5 question?

6 CHAIRPERSON PFANNENSTIEL: Of course.

7 COMMISSIONER BYRON: Having not been
8 through this process before, of standards, perhaps
9 Commissioner Rosenfeld has been through it more
10 than once, but is it typical, or is it required of
11 us to do a neg dec, negative declaration on
12 standards?

13 MR. HUDLER: Yes, for anything within
14 the appliance regulations or the building
15 standards, any regulatory action requires a review
16 of the potential environmental impacts.

17 COMMISSIONER BYRON: Okay, I should
18 probably know that.

19 I also noted that in the back of the
20 appendix A on the neg dec, there were just a
21 couple of items that, you know, didn't fall in the
22 no-impact area, they were in the less-than
23 significant. And one of them was indoor air
24 quality.

25 Was there any concern raised by the Air

1 Resources Board or anything?

2 MR. HUDLER: No. Specific to those
3 comments we received no comments on that at all.

4 COMMISSIONER BYRON: Okay. Thank you.

5 COMMISSIONER ROSENFELD: I'd like to
6 make a comment and compliment the staff. It's
7 unfortunate that this is just called a negative
8 declaration.

9 (Laughter.)

10 COMMISSIONER ROSENFELD: You know, over
11 the next -- Rob just said megawatts per year. I
12 want to emphasize that that's the first year we're
13 going to save 129 --

14 MR. HUDLER: Right.

15 COMMISSIONER ROSENFELD: -- megawatts.
16 But, of course, we're going to have this standard
17 in place, or a tighter standard, for decades. So
18 I would sooner say per decade it's 1.3 gigawatts.
19 And that's not just a negative declaration, that's
20 darned good news.

21 So, with that, I'd like to move the
22 item.

23 CHAIRPERSON PFANNENSTIEL: Before we get
24 a second I'd also like to say I thought that the
25 discussion, the analysis was very well done and

1 very clear.

2 I thought reading through the neg dec
3 document sort of put a lot of what we've been
4 working on in context. And so I thought it was
5 quite well done. So, thank you.

6 The item has been moved. Is there a
7 second?

8 COMMISSIONER BYRON: Second.

9 CHAIRPERSON PFANNENSTIEL: Further
10 questions?

11 All in favor?

12 (Ayes.)

13 CHAIRPERSON PFANNENSTIEL: The negative
14 dec is approved; thank you.

15 MR. HUDLER: Thank you.

16 CHAIRPERSON PFANNENSTIEL: Then we get
17 to the main item, which is item 11, which is the
18 2008 building energy efficiency standards.
19 Possible adoption of the 2008 building energy
20 efficiency standards and supporting documents
21 published as express terms of proposed
22 regulations. Good morning.

23 MR. SHIRAKH: Good morning,
24 Commissioners. I'm Mazi Shirakh; I'm the Project
25 Manager for the 2008 update of the standards. To

1 my right is Bill Pennington; he's the Office
2 Manager for the building and appliances office.

3 I have a brief statement I'd like to
4 read. The 2008 update of the building energy
5 efficiency standards, which got underway in July
6 of 2005, includes dozens of new features and
7 improvements to the existing 2005 code.

8 The documents that are set for possible
9 adoption today include the standards document, the
10 residential and nonresidential ACM manuals, and
11 the reference appendices.

12 Some of the more significant highlights
13 of the improvements include, number one, active
14 coordination of the standards with New Solar Homes
15 Partnership, NSHP; calculation tools for field
16 verification protocols; recognition of the NSHP
17 participation as an alternative way to comply with
18 the standards.

19 New cool roof requirements for
20 residential and nonresidential steep sloped roofs;
21 new residential high-performance fenestration
22 requirements; upgraded swimming pool, spa and
23 water heating requirements.

24 Updated requirements for residential air
25 conditioning, refrigerant charge verification

1 procedures; proper air flow; thermostatic
2 expansion valve treatment.

3 Introduction of electronic filing
4 requirements for recordkeeping to enhance future
5 compliance efforts; creation of referenced
6 appendices as a support document for all standard
7 related documents.

8 Improvements to the nonresidential
9 indoor/outdoor sign and daylighting requirements;
10 improvement to NFRC's site-built fenestration
11 requirement; and the new compliance method
12 approach, or CMA, which vastly simplifies
13 compliance with the standards requirements.

14 And finally, the new envelope lighting
15 and mechanical requirements for refrigerated
16 warehouses, which is a new feature in this code.

17 For this cycle of standards staff
18 conducted 16 days of public workshops and
19 hearings. And received and responded to thousands
20 of public comments. The results are significant
21 improvements over the 2005 standards, with an
22 anticipated 17 percent savings in the residential
23 sector, and 7 percent in the nonres sector.

24 These savings are significant tools in
25 meeting policy directives set by the Commission,

1 the Governor and the Legislature, including the
2 IEPR, Energy Action Plan, Green Buildings
3 Initiative, and Climate Action Initiative.

4 The 2008 standards team included the
5 Commission Staff and our consultants, Pacific Gas
6 and Electric, Southern California Edison, San
7 Diego Gas and Electric and their consultant teams.

8 We would like to acknowledge the efforts
9 of many organizations and individuals who have
10 helped us during this process, including CALBO,
11 which represents the building officials, CBIA and
12 ConSol, CABEC, which represents the energy
13 consultants, NRDC, organization representing the
14 roofing industry, tile, metal and asphalt
15 shingles, California Sign Association and other
16 individuals and organizations who provided
17 comments over the past three years.

18 Finally, the staff would like to
19 acknowledge the contribution of our late
20 colleague, Jon Leber, who passed away in February
21 of this year after a three-and-a-half-year battle
22 with leukemia. Jon was a brilliant engineer who
23 devoted 30 years to the building and appliance
24 standards. He was a major influence in the Title
25 24 standards being the most energy efficient

1 building code in the country and a model for
2 others to follow.

3 For the 2008 standards Jon worked on
4 making improvements to the technical details in
5 the joint appendices until literally days before
6 he passed away in February. He was the ultimate
7 public servant; and the staff of the energy
8 efficiency and renewables division would like to
9 dedicate the adoption of the 2008 standards to Jon
10 Leber.

11 So, with that, I'll be glad to take any
12 questions.

13 CHAIRPERSON PFANNENSTIEL: Thank you,
14 Mazi. I think there's some discussion that we
15 could have, but let me turn to the blue cards. We
16 have a number of parties here who would like to
17 speak, and I think we should hear from them, and
18 then we'll see if there's further discussion on
19 the dais.

20 Start with William Callahan, Executive
21 Director of Associated Roofing Contractors. Mr.
22 Callahan.

23 MR. CALLAHAN: Good morning. Bill
24 Callahan, Associated Roofing Contractors. I'll be
25 brief both for the sake of my laryngitis and for

1 your sanity.

2 I would like to agree with Mazi on one
3 thing, the proposed 2008 code is much improved
4 over 2005. There were a lot of shortcomings, from
5 our point of view, in that code. A lot of them
6 have been addressed.

7 At the same time, the new code cuts a
8 much wider swath through our industry. And it
9 covers just about every type of roofing out there
10 now, not simply low-slope nonresidential.

11 Now, the reach of the code has been
12 greatly extended. Staff have been willing to work
13 with us to craft a number of exceptions that help
14 account for some of the conditions we actually
15 encounter in the field.

16 Models are simulations of the real
17 world. They don't account for everything that
18 people actually encounter when they're on the wide
19 variety of roofs that exist in the world.

20 So, from our point of view, the code is
21 a lot more reasonable in 2008 than it was in 2005.
22 At the same time, it's also a lot more complex.
23 It's going to be very difficult for people to
24 understand it, comprehend it and comply with it.
25 It's going to be a big challenge to make

1 compliance manuals that turn this code into
2 something that the average roofing contractor or
3 building official or building owner can understand
4 and work with.

5 We've been assured by CEC Staff that
6 they'll continue to allow us to help them meet
7 that challenge. And we do appreciate and thank
8 them for that opportunity.

9 Thank you.

10 CHAIRPERSON PFANNENSTIEL: Thank you,
11 Mr. Callahan. We thank you; we appreciate your
12 comments. And we will also work with the staff to
13 make sure that they have compliance manuals that
14 meet that responsibility.

15 Marty Dunhill, Enterprise Roofing
16 Service.

17 MS. DUNHAM: Hi, I'm Marty Dunham from
18 Enterprise Roofing Service. I put together at
19 midnight last night about a three-minute
20 PowerPoint, that if you'll indulge me I would like
21 to present in addition to my very brief comments.

22 First of all I wanted to thank both Mazi
23 and Payam for including the contracting community
24 in -- or listening to the contracting community.
25 We asked for that in the last public hearing and

1 we were rewarded with some good attention. And as
2 you know, they've been working feverishly to meet
3 deadlines and present this modified Title 24 code.

4 Essentially what I'd like to say in
5 addition to that is that, as Bill touched on, a
6 model is a model. And I've been 30 years in the
7 roofing business. I'm accused of not being green
8 enough because I see many problems that are
9 sometimes encountered in the field which present
10 challenges for the roofing contractor.

11 And I was concerned when I went online
12 yesterday and saw that Carlisle had sent a letter
13 in that stated, gosh, you know, an industry
14 standard is eight-inch base flashing and turnup
15 around mechanical equipment and walls. And you
16 just should make everybody do it regardless.

17 Well, I'd like to just provide this
18 slide show, it's only eight slides, as information
19 to kind of show people some real world conditions.
20 The fact of the matter is that in the industrial/
21 commercial sector where I work, building owners
22 have to provide a watertight structure. Food and
23 shelter are about as basic as you can get. Many
24 of these institutions have to provide -- have zero
25 tolerance for leakage, whether it's a

1 pharmaceutical manufacturing plant, a laboratory,
2 datacenter, a medical office building other than a
3 hospital, they cannot afford to have leakage.

4 In some instances they also cannot
5 afford to spend money to pay a plumber, an
6 electrician, an insulator, and HVAC mechanic to
7 modify all the duct work and utilities that are
8 related to mechanical equipment that's mounted on
9 the roof.

10 So, in that vein I'm going to hop to the
11 other podium and just give you a quick overview.

12 (Pause.)

13 MS. DUNHAM: I say real world tongue-in-
14 cheek, but this is a roof that I looked at a
15 couple weeks ago. It's a datacenter for a large
16 hospital institution. And you might say, where's
17 the roof. Well, it's under all that equipment.
18 And as you can see, it's quite a challenge to
19 figure out how to put a roof on it.

20 So some of the exemptions that are so --
21 you know, I know there's an exemption for
22 hospitals, per se, but that really doesn't address
23 places like datacenters and pharmaceutical
24 manufacturing plants, refineries and many other
25 instances where there's a phenomenal amount of

1 equipment on the roof.

2 So this is just the kind of roof --
3 certainly there's a spectrum. Some are wide open,
4 but this isn't your average model of a roof, of
5 what a roof may look like.

6 The top slide here shows a piece of
7 mechanical equipment, but what I'm really trying
8 to call your attention to is that behind the
9 mechanical equipment there's a large wall that
10 goes up to an upper roof level. And at the base
11 of that wall there's a six-inch base flashing.

12 If we were to add insulation then we
13 would have to cut the stucco and raise that
14 reglet. And as you see at the bottom of the
15 slide, there's a phenomenal amount of conduit
16 going into the building that would also have to be
17 rerouted and raised in order to increase the
18 elevation of the roof termination at the wall, as
19 needed to make it watertight. So that's one of
20 the situations where we have a challenge.

21 Down below there's an equipment screen
22 sleeper that's about an inch above the roof; and a
23 duct that's about six inches above the roof. And
24 if you add an inch of insulation all of a sudden
25 your base flashing heights are marginal. The duct

1 has to be completely reworked; you'd have to make
2 provisions to go around the braces, which are
3 difficult to make watertight, as they're designed.

4 Here in the foreground you see a conduit
5 which luckily has plenty of height if you were to
6 add an inch or two of insulation. But behind it,
7 you can see that there's a sleeper upon which
8 steam lines and 480 volt conduits run.

9 There's 25 of those. And they're about
10 six inches above the roof. They're already
11 marginal; very difficult to add any insulation
12 without having to rework all of those sleepers
13 beneath all the electrical lines and steam lines
14 there.

15 So the bottom photo shows a gasline.
16 And this gasline is about -- if you can see my
17 tape measure -- about three inches above the
18 surface of the roof. If we were to add insulation
19 there it really would be almost buried in the
20 roof.

21 So that gasline, you have to not just to
22 be a roofer, but you have to call a plumber in to
23 bleed the gas, you know, to turn the gas off,
24 bleed the line, cut the pipe, raise all of the
25 piping, and then reconnect it. And this is a

1 facility that has -- that can't be shut down.

2 So, what do you do in a situation like
3 that. And I understand how difficult it is to
4 come up with exceptions for all these situations.
5 But there are thousands of them.

6 Here is another situation where I have a
7 conduit that feeds a large HVAC unit on the roof.
8 It's about three or four inches above the surface
9 of the roof. So, if insulation were added here,
10 absolutely this conduit, regardless, should be
11 raised. However, in some instances it's possible
12 to make it watertight without raising it.
13 Certainly to meet all the manufacturer's
14 requirements it should be raised.

15 But it's over a datacenter; and you know
16 how computers generate heat. Those air
17 conditioners have to stay on at all times, 24/7.
18 So, now I have to rent temporary air conditioning
19 to put inside the building so that I can
20 disconnect this conduit, raise it, hire an
21 electrician, re-pull electrical wires in some
22 instances, and reconnect the equipment. Modify
23 the duct work that goes to the equipment, et
24 cetera. So you know of get an idea.

25 The picture at the bottom is actually

1 the other side of this massive unit that's about
2 12-feet-by-12-feet, and weighs several tons. The
3 platform upon which it rests is about eight inches
4 high. And, again, if we added insulation there it
5 would be difficult. We'd have to crane the unit
6 off the roof essentially, in addition to doing the
7 electrical modifications that we've shown above.

8 Here is an electrical junction box
9 that's six inches off the roof. A phenomenal
10 amount of conduit going through this, and there
11 may be some telecommunications lines, you know,
12 also in a similar configuration on this roof.

13 I don't know how we're going to handle
14 that. But we have to figure out something. And
15 if we have to add insulation, the challenge is
16 made even greater.

17 The slide at the bottom shows two
18 conduits. One of them comes out of the roof and
19 bends and goes toward the upper left-hand corner.
20 It's four inches above the roof where it makes
21 that turn. The other one is about six inches
22 above the roof.

23 And if you add insulation those heights
24 do not meet the manufacturer's eight-inch
25 requirement to start with, so you would have to

1 raise, you know, hire an electrician, raise the
2 electrical lines, et cetera.

3 And, let's see, this particular slide in
4 the upper area is actually behind all of that
5 conduit and steel I-beams upon which equipment
6 rests is a base flashing.

7 There's a wall that's about seven or
8 eight feet tall that has stucco on the interior
9 face. And at the bottom of it, in order to raise
10 that base flashing, which is only six inches, we'd
11 have to cut the stucco.

12 Now I can't figure out how to get behind
13 there to cut the stucco to raise that base
14 flashing if I add more insulation in this
15 instance.

16 So these are the kind of challenges that
17 I have faced every day for the last 30 years.

18 The slide at the bottom shows actually a
19 waterline going to a boiler that's mounted on the
20 roof. You can see my tape measure in the lower
21 right-hand corner, the yellow line there. And the
22 waterline's maybe, I don't know, a couple inches
23 off the surface of the roof. And that's got to be
24 disconnected, drained, raised, reconnected. I
25 need to hire a plumber to do that, I'm not a

1 plumber. So, that can get quite costly.

2 The other thing, too, is that
3 disconnecting and reconnecting some of these
4 items, since it can't be done in some instances on
5 other facilities during the day, it has to be done
6 on the weekend, which also gets into overtime
7 costs for not just the roofer, but the plumber and
8 the crane operator and everyone else. So, that's
9 something to keep in mind.

10 And here, last but not least, is a
11 insulated steam line. It's approximately six inch
12 -- the joint on it is approximately six inches
13 above the roof's surface. In order to raise that,
14 if we added insulation, we would have to get a
15 clad person to take the aluminum cladding off the
16 pipe; the insulator to cut the insulation. We'd
17 have to get a plumber to raise it. And then put
18 it all back together again.

19 And then the last slide at the bottom is
20 actually a duplicate. My daughter, who was
21 helping me at midnight last night figure out how
22 to do this, said, gee, mom, I thought you knew you
23 had it in there twice.

24 I didn't, but regardless it just gives
25 you a better overview of one of the gaslines

1 that's, you know, two or three inches above the
2 surface of the roof and that would need to be
3 raised.

4 So I really am a believer in being
5 green. But I also am leery of situations in
6 which, you know, everyone from insulation
7 manufacturers to the government are saying, you
8 know, you've got to -- you, building owner, have
9 to spend an extra \$100,000 to address all these
10 utilities in a retrofit situation.

11 But mainly I just wanted to thank
12 everyone for listening and for looking at some of
13 the real world conditions that often the models
14 don't reflect, and that are very difficult to
15 visualize if you don't spend every day on the roof
16 like I do.

17 So, thank you.

18 CHAIRPERSON PFANNENSTIEL: Thank you,
19 Ms. Dunham. Next we have Erik Emblem, Joint
20 Committee on Energy and -- Environmental Policy,
21 sorry.

22 MR. EMBLEM: Good morning, Madam
23 Chairman, Distinguished Members of the Commission.
24 I appreciate your allowing me the opportunity to
25 address you. And I'm here to speak against the

1 new standards.

2 And I say that, and I'll talk to you
3 about my area of interest and give you a little
4 background.

5 I was here a couple months ago
6 addressing you on a similar issue. Since that
7 time we have formed this new Committee, and it's
8 sponsored by the California Sheet Metal and Air
9 Conditioning Contractors National Association,
10 SMACNA and the California Sheet Metal Workers
11 International Association of Local Unions. That's
12 their employees.

13 There's 625 contractors, and 25,000
14 workers. And their payroll annually is about \$3
15 billion in the state. And they feel that they're
16 major stakeholders when it comes to HVAC systems.

17 And I appreciate the last presentation.
18 I started my apprenticeship in 1967, so I've been
19 around awhile. I've the grey hairs to show you.
20 But I spent two years on roofs like that. I did
21 architectural metals. And that was like a horror
22 story looking at that. And I remember those
23 instances, the flashings and all that. There's a
24 lot to this industry. There's a lot to the
25 building industry.

1 I am born and raised in Santa Fe, New
2 Mexico. I feel myself very environmentally
3 friendly. There's not a smoke stack in Santa Fe.
4 There's some chimneys that, we burn pinon wood.
5 And even that we're trying to get rid of, but I
6 love the pinon fireplaces.

7 But back to the issue on the code. The
8 issue is very simple. We feel that reasonable and
9 cost effective alternatives to the evaluation of
10 HVAC duct systems and HVAC systems has not been
11 considered in the code. That's it in a nutshell.

12 Now, we have written comment to this,
13 and Bill, Mr. Pennington, was very gracious and
14 called me about it and we talked about it. So
15 none of this is personal. It has to do with an
16 industry that is affected by this code, and their
17 customers, which are ratepayers.

18 We feel, and when I say we, we in the
19 industry feel that the standards, as they are set,
20 even the 2005 standards, are not effective;
21 they're not cost effective and they will not
22 result in an energy savings.

23 We say that because 90 percent of the
24 people in the retrofit market in the residential
25 sector have decided not to even take a permit out

1 on their home. So I don't know how you can
2 evaluate the effectiveness of your standard if 90
3 percent of the people say we don't even want a
4 permit.

5 And when we talk to our customers they
6 say they don't want to have a permit because they
7 don't see any value in it. In fact, what they see
8 is a competitor contractor that's willing to come
9 to them and say, look, we'll go in and we'll do an
10 HVAC change-out for you for \$4500. But if you
11 want to do an inspection, call one of the HERS
12 raters in and all that, it's \$6500. And so the
13 customer says, oh, well, we're not going to do
14 that.

15 And we have some other information that
16 kind of goes along with this in this regulation
17 process. And it comes from the CEO of Copeland
18 Compressors. Last year their manufacturing of our
19 22 compressors increased in the State of
20 California.

21 Now, that's kind of counter-intuitive if
22 we have a program that says we want to get rid of
23 those boogers, and we want to put in these R-410;
24 we want to go to a better refrigerant to reduce
25 CFCs, preserve the environment, and have more

1 energy efficiency.

2 But the truth is the customer has made
3 the decision to change the compressor rather than
4 upgrade the system, even when there's incentives
5 and everything to go to the higher SEER units.

6 And it gets back down to some basic
7 basic things. And I think that's what you're here
8 for, and that's what I'm here for. The basic
9 thing is what drives the industry is the consumer.
10 And an educated consumer is going to purchase what
11 they see value in. Energy savings, especially
12 today, is something everybody sees value in.

13 We don't think that the customers are
14 adequately served by this because you've left a
15 big piece of the picture out of the equation.

16 Now, we've had a lot of input on this.
17 Like I say, I started my apprenticeship in 1967,
18 and so I've been around a few years. Before that
19 my dad, after he returned from World War II, he
20 started a sheet metal and heating and air
21 conditioning business in Santa Fe. So when I was
22 a little kid he had me out there cleaning the shop
23 and sweeping floors and cleaning out the pickup
24 trucks for the guys. So I've been around this for
25 awhile.

1 What we have to do is we have to look at
2 the people whose business it is to install, design
3 and make sure that this equipment is running
4 effectively. And we need to turn to them when we
5 decide to come up with a system of evaluating to
6 see if the evaluation is valid.

7 We feel strongly that the protocols that
8 are put forth in Title 24 for the HERS rater on
9 the evaluation of the duct pressure testing is
10 bogus. And that comes from three practitioners in
11 the state who have gone through the whole HERS
12 process; who also used a SMACNA duct standards
13 leak testing. And say, you know, when you walk
14 away from a system and you've applied the protocol
15 established in Title 24, that, you know, a full-
16 grown tomcat can run through the leaks in that
17 system. It's not valid.

18 The ducts are still leaking; the
19 energy's still pouring out of the attics. We're
20 not addressing the problem.

21 So it's not that we don't want to fix
22 it. We need to fix it. But within the regulation
23 there's holes. We had the HERS raters come to us,
24 and when I say us I'm talking for the union side,
25 want to become signatory. Because there's some

1 areas of the state where our contractors are
2 prohibited from using nonsignatory HERS raters.

3 And they came to us and wanted to sign.
4 When we looked into the situation we found out
5 that they wanted to bring this workforce in that
6 had gone through a two-day training class on how
7 to apply a duct test.

8 And we talked to them about, well, what
9 about do they actually -- they said they could do
10 it in two hours. I said, you mean you actually go
11 in the attic and you look and you test and you
12 look again. They said, oh, no, they say most of
13 the systems are inaccessible. Really? Yeah,
14 they're 40 percent or more inaccessible, so we
15 don't have to do that. So we just sign the
16 certificate.

17 A guy goes in for an hour; he does a few
18 things; checks this box, checks that box; and
19 we're out.

20 And the sheet metal workers they didn't
21 want to sign with an employer like that. Now,
22 they want more members, and they'd like to have
23 more dues. That's what they're granted with. But
24 they don't want something that's bogus.

25 So, we'd like to work with you on

1 improving this. I think that part of what's
2 happened, it was brought up here before us, is I
3 think your building standards division is just out
4 working their tail off. They're hard-working,
5 dedicated people. Again, this is not personal.

6 But I think it was one of Coby's books;
7 he talks about going up on top of the tree and
8 make sure you're cutting in the right forest. We
9 might be just cutting in the wrong forest and we
10 need to come back and evaluate.

11 Now, I sat on a bank board for many
12 years. And they had what they called the
13 compliance audit. Two audits you went through in
14 a bank; you had your safety and soundness audit,
15 and you had your compliance audit. Your safety
16 and soundness made sure you had enough money in
17 the bank to fund the loans you have and to manage
18 the deposits.

19 But then you had this compliance audit,
20 and that's the one that made all of us crawl
21 underneath our desks, when they came in and made
22 sure you were doing everything the way you're
23 supposed to do it, in accordance with regulations.

24 And maybe we need to look at that.
25 Maybe it's something to consider here, is a

1 compliance audit. To make sure that we're
2 addressing the needs of the people that we're
3 serving. And that the ultimate goal is energy
4 savings in a cost effective manner.

5 And that we bring in the stakeholders in
6 the industry who have the customer base, who are
7 putting these systems in, to work with you in
8 coming up with a system to adequately test and
9 make sure these systems are operating properly.

10 Now, the reason I say we're against the
11 code, and that's probably kind of a big blank X,
12 and that's probably not fair, because there's
13 probably some good parts to the code. But I used
14 to go to this mutual gains bargaining back in my
15 collective bargaining days with a guy named Bernie
16 Flaherty from Purdue University.

17 Now, Bernie Flaherty, he actually went
18 to Ireland and tried to negotiate peace between
19 northern and southern Ireland. This guy was a
20 dynamic negotiator. And he said, you know, Eric,
21 he says, sometimes in negotiations he says you
22 reach what you call a batinum (phonetic), you got
23 to have a batinum. And he says that's your best
24 alternative to a negotiated agreement. He said
25 that's the point where you just have to say, you

1 know what, we can't have an agreement, there's
2 just nothing here.

3 And that's where we think we are with
4 HERS today. We need to come back, and not the
5 whole HERS process, but where they're evaluating
6 HVAC systems, we need to look at that. We need to
7 rework that.

8 And we stand here today saying we're
9 willing to work with you. We appreciate Bill; I
10 mean, Bill has reached out to us and it's nothing
11 personal. But to my contractors and to the people
12 I'm representing, they feel very strongly that
13 this code, as it's written today and as it was
14 written in 2005, left them out. They weren't
15 considered, and their customers are not being
16 handled with the way it is today.

17 Thank you for letting me talk,
18 appreciate it.

19 COMMISSIONER BYRON: One quick question,
20 if I may, --

21 MR. EMBLEM: Yes.

22 COMMISSIONER BYRON: -- Mr. Emblem?
23 Earlier in your comments you made a remark along
24 the lines that most customers are not going to
25 pull a permit. I wanted to understand what you

1 were saying there.

2 MR. EMBLEM: I worked with the HVAC
3 reshaping group. I sat on a lot of these
4 committees with the PUC and CEC. And the standard
5 number they use out here is that 90 percent of the
6 retrofit projects in the State of California
7 residential and light commercial are not
8 permitted.

9 COMMISSIONER BYRON: Aren't they
10 required to pull a permit?

11 MR. EMBLEM: Yes, they are.

12 COMMISSIONER BYRON: So are you
13 suggesting they should not pull permits?

14 MR. EMBLEM: No, absolutely not. We
15 support permits. In fact, our contractor base,
16 we've done some surveys, they're pulling permits.
17 I mean it's a deep-rooted problem.

18 The problem is, is that it's getting by.
19 And the regulatory and the compliance on the
20 regulatory side is extremely deficient. And there
21 needs to be some problem solving on that.

22 But it gets back to, when I talk to the
23 contractors, they say the problem is the end user,
24 the person's home, the person's building that's
25 being inspected, they don't see value.

1 We have horror stories where somebody
2 would go in and an inspector would come in to
3 inspect the HVAC system, and he found that they
4 put a swimming pool heater in or something without
5 a licensed electrician. Or that they'd modified
6 the garage for their mother-in-law to stay there
7 and hadn't pulled a permit.

8 So they went in there and found numerous
9 other problems. And when a \$6000 air conditioner
10 change-out turned into a \$20,000 or \$30,000 permit
11 problem. And those kind of horror stories. And,
12 of course, I've talked to people in Napa and they
13 say, well, the next thing when you pull a permit
14 is you have the tax assessor come down. And my
15 taxes go up.

16 So there's perception problems. And I
17 think it's an industry problem, it's more at the
18 Building Standards Commission and the Licensing
19 Board, but it needs to be fixed. And we support
20 pulling permits.

21 COMMISSIONER BYRON: Yeah, good. I'm
22 glad to hear that.

23 MR. EMBLEM: Yes.

24 COMMISSIONER BYRON: Thank you.

25 CHAIRPERSON PFANNENSTIEL: Thank you.

1 COMMISSIONER ROSENFELD: Well, just a
2 minute. Sir, I'm the first to admit -- I'm the
3 first to admit that the permitting problem is very
4 very serious. And the Committee is working on
5 that. Ninety percent seems a little high, but
6 when you've heard numbers like 70 or 80 percent,
7 so you're on the right track.

8 But what I can't quite get is we think
9 the compliance on new buildings is, compliance is
10 maybe 70 percent. I don't think we can have
11 different codes for new and retrofit.

12 It seems to me as if we have to stick
13 with what we think is the right thing for new
14 buildings, and work very hard on better
15 compliance. But I don't hear you saying that we
16 have to change the roofing rules for new. I hear
17 you saying we have to have much better
18 coordination for the next cycle, working on
19 cooperation.

20 MR. EMBLEM: Madam Chair, Commissioner
21 Rosenfeld, I agree with basically what you're
22 saying. I agree with you that codes and standards
23 have to be for buildings. You can't differentiate
24 between retrofit and new. And I do agree with you
25 that on new construction, your building permit

1 vis-a-vis the building contractors, by and large,
2 are the ones pulling the permits on the new
3 construction project. And those are being put in
4 and being inspected.

5 But the problem that we're having with
6 energy and peak load use has to do with the
7 residences and the existing buildings. So when we
8 get back to energy, I think we have to look at
9 existing residences. And we have to look at the
10 testing methodology that we're using to test these
11 systems.

12 I think it was the Procter Report that
13 came out a few years ago that said, in his report,
14 100 percent of the HVAC duct work in the State of
15 California doesn't meet standards, new and
16 retrofit. I'm not an absolute. We're bound to
17 have a few good systems out there, but --

18 (Laughter.)

19 MR. EMBLEM: -- but I am going to say
20 that by and large your inspection departments are
21 under-staffed, under-capitalized, and can't do an
22 effective job whether it's new or retrofit. And
23 that's part of your systemic problem.

24 CHAIRPERSON PFANNENSTIEL: Thank you,
25 Mr. Emblem, we agree with that.

1 MR. PENNINGTON: Could I make one
2 comment here? I think there's some good news here
3 related to these comments. There will be a report
4 in front of you at the next business meeting
5 related to addressing how to improve the energy
6 efficiency of HVAC systems in existing buildings
7 that was the result of a lot of industry effort to
8 work together to come up with recommendations for
9 how to make improvements on these issues,
10 including the unlawful practice that's happening
11 out there of failing to pull permits.

12 And I think there was a lot of good work
13 associated with that report. And there's a lot of
14 good ideas that are coming from the industry about
15 how to kind of self-police, and how to, as an
16 industry, recognize there's a problem and to try
17 to address it.

18 And that's something that the Energy
19 Commission tried to facilitate in the forum to
20 develop that report. And we've been working with
21 the PUC related to a big bold strategy that they
22 have for trying to get after that problem. And it
23 was actually the Energy Commission who advised the
24 PUC that that should be one of their three big
25 bold strategies.

1 So, you know, we appreciate the input.
2 There's a lot of work that we can do on this. So,
3 appreciate the comment.

4 CHAIRPERSON PFANNENSTIEL: Thank you,
5 Bill. Bob Raymer, California Building Industry
6 Association.

7 MR. RAYMER: Thank you, Madam Chair and
8 Commissioners. I'm Bob Raymer, Technical Director
9 and Staff Engineer for the California Building
10 Industry Association.

11 And before I get into my comments I'd
12 just like to say for the record that we support
13 adoption today of the 2008 update. As we
14 supported the 2002 and the 2005 update, we
15 understand that California is trying to move
16 forward in a very aggressive posture. And we've
17 worked long and hard with staff to make sure that
18 our concerns get addressed.

19 And so, with that, before I get into our
20 comments, we are very supportive of today's
21 adoption.

22 With that, in response to a comment made
23 by Commissioner Byron, the fact of the matter is
24 you absolutely have to get a permit for that
25 change-out of the HVAC system. You've got some

1 significant electric hookups, as well as some
2 plumbing hookups. Both of these would prompt the
3 need for a permit.

4 The fact that it's not happening is
5 something that we can address down the road, and
6 will have to be addressed. But it should in no
7 way influence today's adoption. And we'll look
8 forward to working with CALBO and the Energy
9 Commission Staff on the ways that we can seek to
10 do that properly.

11 We would like to make some comments that
12 kind of ring similar to what we've said at the
13 2002 and 2005. We want to try and do our best to
14 implement these new regulations as early as
15 possible. That helps with the transition so that
16 we, you know, we don't get to July of 2009 and all
17 of a sudden everybody wants to start redesigning.

18 As a matter of fact, if we can, there
19 are many builders that would be interested in
20 complying today. What we need is the computer
21 software needed to show compliance with the
22 building departments, and for our own analytical
23 tools.

24 For years we have been asking the CEC
25 and the software manufacturers to provide us with

1 at least a 12-month lead in terms of availability.
2 So, in essence, if these standards take effect in
3 July of 2009, it would be great to have them prior
4 to July of 2008.

5 And in addition to that, the CEC
6 standards are directly referenced by HCD in their
7 green building standards. So we're going to be
8 moving forward with early application of all the
9 provisions in HCD's green building standards,
10 including the CEC regs.

11 So the sooner we can get those
12 compliance tools the better that we can make the
13 change, and the easier it's going to be on the
14 local building departments who are very stressed
15 right now.

16 And that leads into my second comment,
17 once again we'd like to raise the cry for a very
18 strenuous approach towards supporting training and
19 education. We did a great job of that in the end
20 of the 1990s and early 2000s. We've been very
21 busy with lots of competing endeavors in the last
22 three to four years, and training and education is
23 beginning to take sort of a backseat. That's
24 going to be very problematic over the next two to
25 three years.

1 Obviously, as has been mentioned by
2 several other speakers, these standards are
3 complex. So have the last sets of standards been
4 complex. That's really nothing new.

5 What is new is that we've had an
6 economic downturn. And of the people that we have
7 trained to comply with the existing standards, I
8 have to tell you, about 70 percent of them, and
9 that's a very accurate number, about 70 percent of
10 the people we've trained will not be in that same
11 capacity when the new standards take effect.

12 This is a huge problem. It's going to
13 create sort of a snowball effect with the poor
14 building officials trying to cover for this, as
15 well. So the extent that we can put a full-court
16 press on getting our subcontractors, the
17 manufacturers, the product purchasers, the site
18 superintendents, the building officials up to
19 speed and knowledgeable about compliance with
20 these regulations, the better.

21 It's a huge push that we're going to
22 need to do over the next couple years. And like I
23 said, most, the lion's share of the people who
24 were trained to comply with the 2005 standards,
25 they're not going to be in those capacities when

1 the 2009 standards roll around.

2 We do have some issues with some low
3 infiltration credits, but these are things that we
4 can work out with staff in terms of a realistic
5 applications out in the field down the road. It's
6 nothing that should hold up adoption by you today.

7 And lastly, once again, we support
8 looking at the existing housing stock. The Energy
9 Commission did a great report in response to AB-
10 549. And to the extent we can assist with those
11 efforts, we would love to do that.

12 So, thank you very much.

13 CHAIRPERSON PFANNENSTIEL: Thank you,
14 Bob. And we are continuing to work on those
15 efforts, I know you're aware.

16 MR. RAYMER: Thank you.

17 CHAIRPERSON PFANNENSTIEL: Thanks very
18 much. Reed Hitchcock, Asphalt Roofing
19 Manufacturers Association.

20 MR. HITCHCOCK: Good morning, Madam
21 Chair and Commissioners. My name is Reed
22 Hitchcock; I'm the Executive Director of the
23 Asphalt Roofing Manufacturers Association. We
24 represent manufacturers of both steep-slope and
25 low-slope asphalt roofing products.

1 First off I would just like to on the
2 record express our sincere thanks to the CEC and
3 recognize key staff and consultants for their
4 substantial time and effort that's gone into this
5 process, as well as the increased cooperative
6 efforts with the stakeholders, like our
7 organization.

8 Particularly Bill Pennington, Mazi
9 Shirakh, Payam Bozorgchami, as well as Charles
10 Eley and Jon McHugh. There's a lot of other
11 folks, I know, that have been involved, but that's
12 the team we've been working very closely with for
13 this process.

14 Our organization is especially
15 appreciative of the inclusion of quote-unquote
16 "real world" exceptions, as well as compliance
17 options in the 2008 code that achieved the same
18 energy goals as the prescriptive requirements, but
19 do result ultimately in more choice for the
20 consumer, which is obviously all the more
21 important as citizens -- I'm sorry, as attention
22 turns to the residential application and impacts
23 citizens in their homes.

24 Overall our organization sees the
25 substantial reductions in energy use that will

1 result from the 2008 code as a very positive step.
2 And we're committed to continuing to work with the
3 staff on both the compliance manuals, as well as
4 to achieve greater reductions in the future
5 through cost effective new technologies, as well
6 as sound application of products and measures that
7 are available today.

8 So, thank you very much.

9 CHAIRPERSON PFANNENSTIEL: Thank you for
10 your comments. Patrick Splitt, App-Tech,
11 Incorporated.

12 MR. SPLITT: Hi, it's Pat Splitt from
13 App-Tech. I'm an energy consultant from Santa
14 Cruz. And I've been filing a lot of comments and
15 concerns about these regulations.

16 And it turns out a lot of what I've
17 filed for the 15-day language is identical to what
18 I did on the 45-day. And that's because they seem
19 to have been ignored, and I can't see how. So I'm
20 just going to try to go through these quickly.

21 Starting with the Administrative
22 Procedure Act, there's a section there, 10103(d)
23 where all the responsibilities for building
24 officials are supposed to be. And in all the
25 other codes that they handle, they are used to

1 just looking in the administrative section to find
2 out what their responsibilities are. And that's a
3 section that we call out as where their
4 responsibilities are.

5 But then if you look into the
6 appendixes, and I've listed just one that I saw,
7 NA-1.3.4, there's paragraphs of requirements for
8 building officials. Well, it means nothing to
9 them. Those are meaningless words unless you put
10 them up into the administrative code, because
11 they're administrating and you have to tell them
12 what to administrate or forget it.

13 The next thing I'm commenting on is the
14 calculation methods. I keep harping on this, that
15 both the state administrative code for the
16 Commission, and the Warren Alquist Act, require
17 public domain computer programs for both res and
18 nonres. There are none. Are none. Breaking the
19 law.

20 I've been recommending that we remove
21 the term public domain because it's obsolete. And
22 I've started to rewrite that section of the
23 administrative code to sort of go along with my
24 ideas, but still in the current code the
25 nonresidential program, even though it's not

1 public domain for the computer compliance, the
2 Commission didn't come out until six months after
3 the code went into effect.

4 Well I, or no one else that needs
5 computer programs to do their work, can wait for
6 six months after the code goes into effect. So we
7 all had to go and spend \$1000 for the
8 nonresidential program or whatever, to purchase a
9 program. When we supposedly could have gotten one
10 for cost from the Commission.

11 Well, once I'd purchased the program for
12 \$1000, I'm not going to throw it away six months
13 later when the Commission comes out with a
14 program. So it was a complete waste of effort to
15 do that.

16 And as far as I know for the residential
17 program it still doesn't exist. It hasn't been
18 approved yet as far as I know. I haven't seen
19 that. And how long has it been since the code has
20 gone into effect. That program's required by law.
21 And the staff just routinely ignores the laws that
22 they don't like to deal with, but they come down
23 on people out trying to make a living because they
24 don't obey their laws.

25 Well, I think they ought to meet their

1 laws first before they come down on us. That's
2 hypocrisy.

3 So, I won't go over everything here, but
4 there are a couple of points in here that I wanted
5 to point out. One for 10109(a), I'm stating that
6 these programs shall be certified. These are the
7 programs that the Commission is supposed to be
8 providing and made available to the general public
9 at least 120 days before the effective date of
10 2008 standards.

11 That's so people have them and have a
12 chance to learn how to use them, be trained on
13 them. And also these programs are supposed to be
14 the reference programs for all the other
15 compliance programs.

16 Well, if the reference program doesn't
17 exist, how did these other programs get approved?
18 When your law requires that they show that they
19 come up with equivalent compliances to the
20 reference program. So, got to change that.

21 Another thing I'm adding in section (b)
22 is that the Commission shall also develop a
23 procedure for assuring the ongoing quality and
24 accuracy of these certified programs. And a
25 timely correction of any reported calculation

1 errors. Correction of errors will not normally
2 require recertification. If a vendor refuses to
3 correct a program error, then the program
4 shouldn't be certified.

5 Right now there's absolutely no method
6 for keeping these programs up to date and fixing
7 bugs. If I find an error in a program, I call up
8 the hotline. They say, well, we don't deal with
9 that; call up the vendor. Call up the vendor. He
10 says, thank you very much, and does nothing.
11 Nothing. They never correct them. Why? Because
12 it's more work. Why should they? It's a
13 certified program from the Energy Commission. The
14 Commission has decreed that it's okay.

15 If they were to correct their program
16 now they'd have to go and get it recertified.
17 That's a big hassle. I mean, no one has thought
18 about this, so it just doesn't happen. There are
19 tons of bugs and people are aware of these bugs,
20 can work them to make just about anything comply
21 if you want to.

22 I can go in the nonresidential program
23 and if I make a mistake and put in the wrong type
24 of energy efficiency for an air conditioner, I can
25 have the building comply easily. But if I go and

1 instead of just looking at the total, the result
2 for the compliance margin, if I look up at the
3 numbers that were added up to come up with that
4 total, I find out that the cooling system was
5 actually using negative energy. It's like a
6 nuclear power plant there.

7 And it actually was putting energy into
8 the building instead of taking it out. And it was
9 because of some calculation error. And I reported
10 that to the vendor. It's still there. There's no
11 way of fixing this. It's stupid.

12 So, nobody has looked into this stuff
13 and tried to work this all out to today's
14 standards. All these regulations are back from
15 when you put punchcards into the computer to get a
16 result. Well, that's enough of that one.

17 I'll just run through these quickly
18 here. Insulation. If quality insulation
19 procedures have been shown to be a cost effective
20 conservation feature, why are they not mandatory
21 for all envelope insulation? This --

22 COMMISSIONER ROSENFELD: I didn't hear
23 you. Well, what are they not mandatory for --

24 MR. SPLITT: All building, instead of
25 being an option where you get credit for it. In

1 Santa Cruz, we don't have HERS requirements,
2 nobody does this. If I told someone that was a
3 client of mine, well, you know what, even though
4 we don't have to do this, we can require it and
5 then your installer will have to meet these
6 standards.

7 And they'll get two different bids.
8 They'll get one bid from the guy to do what they
9 always do. And they'll get double that to do
10 quality installation, which is basically just
11 doing what he's supposed to be doing anyway.

12 I mean why shouldn't everybody do that?
13 It doesn't make any sense. I mean it should just
14 be mandatory. This would be a more effective and
15 less burdensome method of reducing energy
16 consumption than many of the other proposals in
17 this rulemaking. Definitely.

18 There's a section there, 118(e)(2) that
19 says for commercial buildings that you can't have
20 a ventilated space under an insulated roof. What
21 about residential? I mean shouldn't it be there?
22 It should be. That should be there for
23 everything.

24 There's a section 118(g) that had to do
25 with -- I was complaining about the definitions of

1 insulation for slab-on-grade floors. That got
2 fixed. But it was also mixed up before with some
3 requirements for insulating for raised residential
4 concrete floors. And that seemed to have just
5 disappeared. Once upon a time there was some
6 insulation requirements there, but they're gone
7 now. They just fell out.

8 There's a definition for heated slab
9 floor which is not correct. A radiant slab could
10 be heated by any means, hot water pipes, hot air
11 ducts, electric cables, et cetera. Right now the
12 only thing that is considered a heated slab floor
13 is one that has water tubes in it. You can put
14 electric cables in and you don't have to put slab-
15 edge insulation. Does that make any sense? No.

16 And these aren't the first times I've
17 mentioned these. I've mentioned these before and
18 they've just been ignored. How can they be
19 ignored? This is common sense.

20 Ventilation. The section 121(b)(1)
21 conflicts -- this is in the nonresidential
22 ventilation section, it conflicts with residential
23 section 150(o). Now we have mandatory mechanical
24 ventilation for single family residences. But
25 high rise and multifamily residences over three

1 stories are in a different section of the code,
2 and there's no mechanical ventilation requirement.

3 Mechanical ventilation has to use more
4 energy than just opening windows. So, if this is
5 the Energy Commission, it must be that if they had
6 a reason for requiring that, that it's some sort
7 of health and safety requirement. That you're
8 requiring mechanical ventilation in residential
9 spaces because of the fear of the health and
10 safety of the occupants.

11 Well, if you're doing that for a single
12 family home that has windows all the way around,
13 why wouldn't it be more important to do it in an
14 apartment that only has windows on one end; that
15 can't possibly get cross-ventilation. And is more
16 concentrated as far as contaminants.

17 If any residential occupancy is going to
18 have problems with indoor air quality, those are
19 the ones that would have the problem. Yet, you
20 ignore it. This doesn't make any sense. Either
21 they all have to do it or none of them have to do
22 it. I mean, I can't believe I'm still seeing this
23 stuff.

24 There's a section on lighting controls
25 that basically has to do with automatic lighting

1 controls when tailored method is used. But then
2 it goes on to list no automatic lighting controls.
3 So, that just should be thrown out of there. It's
4 just a mistake.

5 There's a section that states that all
6 load calculation programs have to be approved by
7 the Commission. But as far as I know there is no
8 list of approved load calculation programs.
9 There's no place where a vendor can get certified.
10 And there's no requirements as far as what you
11 have to do to get certified. But yet it's
12 required that it's to be certified. Well, either
13 come up with a program or get that out of there.

14 Hydronic variable flow systems, section
15 144(j)(1). There's no exception for systems like
16 hydronic radiant or convective heating systems. A
17 hydronic heating system could have dozens of
18 fractional horsepower pumps that exceed the total
19 1.5 horsepower limit that's been placed in here
20 arbitrarily.

21 And also controls, score of control
22 valves. And they mention pumps, but they don't
23 say which pump has to be variable flow. Do all
24 the pumps in the hydronic system have to be
25 variable flow? Only some of them? Only one of

1 them? Only one, which one? None of that's in
2 there. It's just gibberish.

3 Outdoor lighting, section 147. The
4 overly complex section does not require plans for
5 outdoor lighting. It has to. If you look
6 through, or try to figure out the requirements,
7 there's many overlapping areas that you have to
8 define for outdoor lighting and light fixtures
9 don't have to be necessarily in that area to have
10 their light count for wattage in the area.

11 You come up with a list of areas that
12 the building official cannot possibly look at and
13 have any idea what was in the mind of the person
14 that came up with those numbers. There's no way
15 to check just forms. There has to be a cross-
16 reference between those areas, and a drawing that
17 actually shows where the areas are, which light
18 fixtures go to which area. It's the only way that
19 you can ever have this work. Without that you
20 might as well throw the whole section out.

21 You do require this for indoor lighting,
22 for daylight areas. The code does require that
23 the plans indicate all the daylit areas. Well, if
24 you do it for an indoor area where you've got
25 walls and roofs and it's fairly easy to see what

1 space you're talking about, you really need it for
2 outdoor. Because you don't have any walls to tell
3 you, you know, where the line stops. It doesn't
4 make any sense.

5 There's mandatory measures for
6 residential section 150(j)(1)(A) that requires
7 insulation for gas storage water heaters and
8 indirect heated tanks. But not electric water
9 heaters. I mean I have to insulate a gas water
10 heater which is much more difficult to insulate
11 because you have to -- out the combustion air and
12 the vent collar, but I don't have to put extra
13 insulation on an electric tank. Does that make
14 any sense? No.

15 There's section 150(m)(10) doesn't allow
16 porous inner core flexible duct. Well, there's
17 duct work called acoustic duct that's used for
18 sound attenuation. And there are many
19 manufacturers, this is just one, J.P. Lamborne.
20 This is a product that's used a lot. And you've
21 just made it illegal. And I'm sure these people
22 don't know about it, and they're going to be
23 really upset once they figure out that you kind of
24 put them out of business.

25 There are also section 151(f)(8)(E),

1 there are several flexible preinsulated piping
2 systems available for buried waterpipes. It's not
3 possible to remove or replace the enclosed pipes
4 from the sleeve as required by this section.
5 Therefore, all these products are illegal.

6 And here, I have just one example here,
7 but there's a lot of companies that make this
8 stuff. It's flexible pipe; you just open up a
9 trench and roll this thing out. It's cut to size;
10 there's no joints. These are all going to be
11 illegal. And I don't think they know about this,
12 either.

13 In the appendixes, I won't get into all
14 the appendixes, because they are very complicated,
15 but there's one I just noticed this the other day.
16 There's appendix RA-1 which seemed to be
17 requirements for doing load calculations.

18 But they conflict almost completely with
19 the residential requirements in section 150(h)
20 that requires either ASHRAE or SMACNA or ACCA
21 manual J. This section forbids using anything
22 other than the ASHRAE system. That would make
23 manual J calculations illegal.

24 It also forbids doing anything other
25 than -- loads; it forbids room-by-room load

1 calculations. It's ridiculous. I mean this whole
2 thing, I don't know where this came from. It
3 looks like maybe it was intended to be in the
4 residential ACM manual, but it has no business
5 being there and has nothing to do with load
6 calculations for a building. The whole thing has
7 got to be deleted. Has to be.

8 I've mentioned about life cycle cost
9 analysis. The manuals are not done yet. In the
10 manuals where everything is going to be determined
11 as how you go about doing all these things that we
12 in our regulations. What you have to do.

13 If you don't know what you have to do to
14 comply with a certain regulation, how can you know
15 what that's going to cost? So if you don't know
16 the cost, what worth is your life cycle cost
17 analysis? It's either to make something show
18 that's cost effective, you leave out half the
19 costs.

20 And, again, the compliance manuals and
21 procedures and forms. It's the same thing with
22 the forms. The forms are basically supposed to be
23 done with the ACM procedure. Again, you're doing
24 the forms before you've figured out what the
25 process is, what the procedures are going through

1 this.

2 And all the meetings that we go to when
3 we're supposedly thinking about these regulations
4 we're just talking theory. It isn't until the 45-
5 day language comes out that we actually see what
6 the Commission had on their mind. And you still
7 haven't gone through, until you get the manual,
8 figure out what it is that you have to do.

9 And I'm sure for a lot of these things
10 once everybody sits down around the table, tries
11 to figure out what it is you have to do to do some
12 of these things, they're going to say well, this
13 is ridiculous. We can't do this.

14 But it's too late, because you've
15 already adopted the regulation. And that's what's
16 happened from the 2005 standards. Got regulations
17 that people say, well, this is BS, forget it.
18 Happens over and over again.

19 And one thing I forgot to mention in the
20 section on the code for computer programs is I
21 have been harping about this problem of getting
22 rid of the public domain requirements. And it's
23 going to take a change in the Warren Alquist Act.

24 And I've discovered that is going
25 through the Assembly right now, actually went

1 through the Assembly. And AB-1065 is now in the
2 Senate.

3 And I intend to try to amend that
4 regulation to incorporate some of these other
5 items that I put in here, like assuring that
6 there's somewhere up-keeping the, upgrading the
7 programs and keeping them maintained and making
8 sure that those programs are available before the
9 standards go into effect.

10 Someone around here has been trying to
11 make sure I didn't know this was going on. I do
12 know it's going on. I've been talking to the
13 staff, and I'm going to propose an amendment to
14 AB-1065 to make it more agreeable and more
15 compatible with what the real world is.

16 And finally, all of these things that
17 I've been harping on for a long time, the main
18 problem is nobody thinks about implementation.
19 It's all just regulation. Nobody thinks about
20 implementation. What happens in the field. How
21 do you actually do this stuff; how do you actually
22 check it.

23 And what I've been trying to get you to
24 do is to stop and figure that out, and then work
25 backwards and say, okay, this is what we want to

1 have happen. What do we have to put in the
2 regulations to do it. Instead of coming up with a
3 bunch of regulations, and then after you put them
4 into effect, then figure out, well, can we even do
5 it at all. Doesn't make any sense.

6 So, some of these, sounds to me like
7 you're planning on blowing right through this
8 thing no matter what. And I'm not the only one
9 that has commented on the 15-day language. There
10 are a lot of other, I think, very good comments
11 that should be addressed.

12 And if they're not addressed I think
13 some of them are going to have to be addressed.
14 And if the Commission goes ahead I think I will
15 probably have to, probably along with some others,
16 initiate an emergency rulemaking to change these,
17 and get these items fixed.

18 And I think it would be a lot easier if
19 you guys just continue this a little bit and try
20 to get some of these items addressed now, rather
21 than do it all over again.

22 CHAIRPERSON PFANNENSTIEL: Thank you,
23 Mr. Splitt. We do have other comments.

24 MR. SPLITT: Very good, thanks.

25 CHAIRPERSON PFANNENSTIEL: Michael

1 Hindus from Tile Roofing Institute.

2 MR. HINDUS: Thank you. I'm Michael
3 Hindus; I'm a partner with Pillsbury, Winthrop,
4 Shaw, Pittman, and today I'm representing the Tile
5 Roofing Institute, which is the official voice of
6 the tile manufacturers who represent over 95
7 percent of the tile, roofing tile, that's produced
8 in North America. And thank you for providing the
9 opportunity to speak today.

10 TRI has been active for the past two and
11 a half years attending workshops, meeting with
12 staff, and supplying technical studies supporting
13 the energy efficiency of tile roofing. Tile is
14 the leading product for roofing on new residential
15 construction in California.

16 The Tile Roofing Institute respectfully
17 requests today you delay the adoption of that part
18 of proposed section 151 of the 2008 building
19 efficiency standards that relate to prescriptive
20 requirements for roofing materials in new
21 construction, because it is based on what TRI's
22 analysis determines are faulty engineering
23 assumptions that will lead to significant
24 financial losses for consumers in the building
25 industry. And most importantly, which will not

1 achieve the desired energy savings.

2 So there are two reasons why I'm asking
3 you to delay -- or the Tile Roofing Institute is
4 asking to delay implementation of that part of
5 section 151.

6 First, applying standards which permit
7 dark asphalt and metal roofs to be used to meet
8 prescribed codes only in climate zones 10 to 15,
9 while tile roofs must conform in all climate zones
10 is bad policy, contrary to customer demand, will
11 never gain market acceptance, and unfairly
12 penalizes the tile roofing industry.

13 And second, the staff's calculator
14 inappropriately disregarded the air space option,
15 which I'll describe to you, despite prior
16 assurances that it was included.

17 So, first, the building standards
18 erroneously require the tile roofs to meet
19 prescribed standards in all climate zones while
20 other roofing materials must meet prescribed
21 standards only in zones 10 to 15.

22 Roofing material products such as
23 asphalt shingle and metal roofing provide the
24 greatest heating transfer to the attic area. And
25 this results in the highest level of energy cost

1 to cool.

2 However, these materials are required to
3 meet prescribed standards only in climate zones 10
4 to 15. On the other hand, roofing tiles, which
5 provide the greatest reduction in heat transfer
6 and have the lowest energy cost are required to
7 meet the prescribed codes in all 16 zones.

8 While the proposed restrictions have
9 been unfairly placed on tile, which is the best
10 performing roofing products for all zones, asphalt
11 shingle and metal roofing are free to provide any
12 color product in climate zones 1 through 9.

13 So, in climate zones 1 through 9 the
14 darkest of colored asphalt shingle or metal would
15 not be precluded by your new code provisions.
16 While in contrast only lightly colored roofing
17 tiles meeting a 15 percent reflectivity standard
18 would be allowed.

19 And climate zones 1 through 9, of
20 course, represent the largest population
21 proportion of the California population. And if
22 the shift by consumers to darker colored asphalt
23 shingle or metal occurs, the result will be a
24 significant increase in energy consumption and
25 peak demand.

1 So we believe that the requirement that
2 the standards apply to all 16 zones for roofing
3 tile, but only to zones 10 through 15 for other
4 forms of roofing has no logical or engineering
5 basis.

6 And now I want to address the energy
7 calculator that the staff has described to us.
8 While the CEC has focused only on color
9 reflectance of roofing materials for possible
10 energy savings, the extensive research that the
11 Tile Roofing Institute has submitted to the staff
12 demonstrates that roofing tiles, by design,
13 provide a natural thermal mass and ventilation
14 principle called above sheathing ventilation, ASV,
15 that will significantly reduce heat transfer
16 regardless of the color of the tile.

17 In fact, research submitted by TRI in
18 this docket has shown that ASV, alone, will out-
19 perform other roofing materials in all 16 climate
20 zones.

21 The Tile Roofing Institute was assured
22 in discussions with CEC Staff and consultants that
23 the air space option, that is ASV, was being
24 included. However, the original prescriptive code
25 language did not include such reference.

1 Then we also dug into the question of
2 the calculator that the staff had used. And
3 finally, on April 3, 2008, TRI was finally able to
4 talk to CEC Staff about the specifics of the
5 revised calculator.

6 We had previously been assured that
7 staff believed that the air space was included in
8 the calculator. When TRI actually talked to the
9 developer of the calculator, discovered for the
10 first time that the air space was not properly
11 included, and that the tile roofing industry was
12 being penalized for any roofing tile that does not
13 meet color reflectance of at least 15 percent.

14 The calculator obviously is a vital tool
15 to determine the actual cost saving alternatives
16 for 98 percent of new construction. And it
17 appears that no one outside of the consultant
18 knows precisely what it includes.

19 And we think it's inconceivable that the
20 CEC can make a decision based on such a flawed
21 calculation.

22 TRI has offered its full assistance to
23 CEC Staff and consultants to help complete the
24 proper analysis of the research and development of
25 the computer modeling.

1 In the interim we request that the CEC
2 not adopt the standards relating to steep-pitched
3 roofs based on an imperfect and potentially
4 shifting model.

5 If the CEC keeps the prescriptive
6 standards for tile roofing in all climate zones,
7 then we believe it must also recognize the energy
8 savings attributable to ASV.

9 So, in conclusion, we request that the
10 CEC hold for further review the portions of
11 section 151 pertaining specifically to steep-
12 sloped pitch roofing sections for new residential
13 construction until the staff can provide further
14 details with respect to the above issues.

15 Thank you for your consideration.

16 CHAIRPERSON PFANNENSTIEL: Thank you,
17 Mr. Hindus. Could we get the staff commenting
18 both on the comment on the roofing that we just
19 heard, and -- the TRI, their acronym, as well as
20 other comments we've heard later -- or earlier
21 today?

22 MR. SHIRAKH: Okay, on the tile
23 questions the above sheathing ventilation is a
24 topic that they have brought up repeatedly, and
25 they want some credit for it, the ventilation that

1 takes place when you mount the tiles above a
2 backing or a cross-backing.

3 And the industry proposed a certain
4 credit that was based on an experiment done at Oak
5 Ridge National Lab, and also some simulation
6 models.

7 Unfortunately, in California when we
8 tested it in a real house we could not verify or
9 get the same results.

10 So what we have offered the industry to
11 work with us even after the adoption to determine
12 what the actual value is in a real house in
13 California. And we're happy to work with them to
14 determine that, and then incorporate it at some
15 later time.

16 Related to requirements for different
17 climate zones, what I need to mention is that for
18 asphalt shingles the reflectance is .20, which is
19 significantly higher than what the typical shingle
20 is out in the market. On the other hand, the
21 reflectance for tile is .15, instead of .20.

22 These requirements have been out there
23 for over a year. And we've had several workshops,
24 stakeholder meetings. I remember over a year ago
25 in Hearing Room B, you know, we had this. And

1 this proposals have been out there and there was
2 no objections until, you know, we released the 15-
3 day language.

4 The data that we had at the time showed
5 that a significant number of tile products, by
6 their own admission about half of them, meet the
7 .15 requirement. There are some very dark tiles
8 that may have a problem meeting that .15
9 requirement, you know, for new construction. If
10 that's a problem they can use the performance
11 approach and there's usually a very rather modest
12 tradeoff they need to do in order to get those
13 tiles installed. Again, we're talking about the
14 hottest climate zones.

15 And the other point is that when we
16 started this process, you know, we were hoping for
17 really much higher, much more aggressive cool roof
18 requirements. We started out with values for
19 reflectance in the neighborhood of .35 or .30.

20 And through the years the negotiations
21 with the industry we've compromised down to .15.
22 And there's many, including Commissioner
23 Rosenfeld, probably who feel we've gone as far as
24 we can.

25 And so any further dilution of the

1 requirements would really, I think it would be not
2 warranted at the time.

3 Related to the earlier comments by Mr.
4 Splitt, he did provide the comments at the 45-day
5 language. Mr. Splitt and CABEC, as an
6 organization, they worked with the staff; they
7 provided hundreds of comments over the past year
8 and a half. We've worked with them. None of the
9 comments have been ignored.

10 Many of their suggestions we accepted,
11 they have found their way into the standards, the
12 15-day language.

13 For the ones that we disagreed we have a
14 prepared statement for every single one of them.
15 And so, that would be part of the final statement
16 of reason they asked for. Which, you know, would
17 explain. We have to respond to every comment we
18 receive, so we can't really ignore them, even if
19 we wanted to.

20 So, we have, in this document, you know,
21 kind of a point-by-point response to this and
22 every other comment that will be addressed in it.

23 On the question of many of the points
24 that he's bringing up related to the compliance
25 software, these are related to the 2005 standards.

1 You know, we'll probably have to do a better job,
2 you know, getting the compliance software programs
3 in place. But I don't see why that should hold up
4 the adoption today.

5 On the more specific questions he has on
6 various chapters, you know, we have -- staff has
7 gone over all of these comments with our
8 contractors. I don't know if you want a point-by-
9 point rebuttal, we could do that. Or we can
10 discuss it in the FSOR when it comes up. But
11 there is a reason for everything that we've done.

12 CHAIRPERSON PFANNENSTIEL: Thank you,
13 Mazi. Commissioner Rosenfeld.

14 COMMISSIONER ROSENFELD: I have a
15 question for Mazi and some friendly remarks about
16 the tile roofing.

17 The one thing, Mazi, that Pat Splitt
18 said that seemed like it could be fixed easily was
19 he said that contractors need to be able to look
20 for a checklist in one place in the document. And
21 that there's still some requirements littered
22 around in the appendices.

23 Will it be hard to put in a cross-
24 reference, just adding a few words to the main
25 list?

1 MR. SHIRAKH: If I understand the
2 comment correctly he was referring to section 10-
3 103, the administrative section of the standards.
4 And he had made this comment previously at the 45-
5 day language.

6 And what he is saying is that all the
7 building enforcement requirement must be all in
8 one section, 10-103.

9 If you look at that section it's been
10 almost completely revamped. And we have done many
11 of the things that he's suggesting. But there are
12 always other building enforcement requirement that
13 are going to be in other parts of the code, in the
14 reference appendices. And we provide cross-
15 reference as to NA-1 or RA-2 or RA-3. And we have
16 to use cross-references. We can't just put
17 everything all in one section.

18 And there's really no legal prohibition,
19 and there's actually a lot of precedence for using
20 cross-references within various standard
21 documents.

22 But all of those, or most of those
23 requirements are largely in 10-103 in the revised
24 version. And there are cross-references where,
25 you know, we have to provide them.

1 COMMISSIONER ROSENFELD: Okay, thank
2 you. And just a remark. Mr. Hindus, if I've got
3 your name right, can you come back up for just a
4 second?

5 Let me make a couple of remarks about
6 roofing tiles. Let me say first that I'm a little
7 bothered; this discussion sounds like it's a few
8 years out of date. That is, you mentioned the
9 tiles are superior to asphalt shingles or to tin
10 roofs because of their thermal mass. And that's
11 absolutely true. And that's one reason that the
12 reflectance value has only got to be greater than
13 .15 instead of .2.

14 But, there is a global warming problem.
15 And it's a little bit ironic. I just came back
16 from a trip to China where I went to the trouble
17 of visiting the Ministry of Construction to talk
18 with them about requiring white tiles or cool
19 color tiles throughout this huge Chinese market
20 which is half the world's construction.

21 And they're pretty interested in doing
22 that to avoid CO2. And they didn't bring up the
23 issue that, oh, well, tiles are better than
24 shingles and so they should have some exemptions.

25 So I just want to make the point that as

1 far as reducing air conditioning loads, it's
2 certainly true that thermal mass is an advantage.
3 It's certainly true that the gap effect, the stack
4 effect of the tiles is an advantage.

5 But in terms of global warming the fact
6 that there's a stack effect under the tiles and
7 the tiles don't run quite as hot as an asphalt
8 roof just means you're getting better heat
9 transfer to heat the world. It doesn't help with
10 global warming at all.

11 So your problem with the modeling is --
12 I didn't get around to reading your comments until
13 late last night, but I did talk to Dr. Hashem
14 Akbari at Lawrence Berkeley Lab. He thinks that
15 the difference that Mazi talked about between Oak
16 Ridge modeling and California modeling where the
17 air is much drier in California, and there's more
18 greenhouse effect is significant.

19 And I want to point out that that
20 modeling should and can be done. And it doesn't
21 depend on the adoption of the standards today.
22 You should get good modeling, get an alterative
23 compliance credit for that. And that can be put
24 in at anytime that the modelers are happy that the
25 good data are accurate.

1 So, I would definitely encourage your
2 interest to do some experiments in California;
3 well document each -- to the literature, and they
4 should certainly be put into the alternative
5 compliance.

6 MR. HINDUS: Thank you, Commissioner. I
7 appreciate those comments and that encouragement
8 because as you've noted, at the end of my remarks
9 I said if we could get the modeling done properly
10 then we could live with the climate zone
11 restriction.

12 Thank you.

13 COMMISSIONER ROSENFELD: That's the end
14 of the public comments?

15 CHAIRPERSON PFANNENSTIEL: That's all
16 the blue cards I have on this subject. Okay.
17 Anybody else have a comment?

18 COMMISSIONER ROSENFELD: I'm -- did I --

19 CHAIRPERSON PFANNENSTIEL: Yeah, there's
20 somebody -- one other comment?

21 MR. FERRELL: Yes, ma'am.

22 CHAIRPERSON PFANNENSTIEL: Please come
23 to the mike and identify yourself.

24 MR. FERRELL: My name's Jeff Ferrell. I
25 work for the Division of Occupational Safety and

1 Health, that's Cal-OSHA. We've been working with
2 staff over the last couple of years.

3 From the standpoint of worker health and
4 safety and based on available research literature,
5 the Division believes that demand control
6 ventilation systems are still unproven. They're
7 susceptible to component and control system
8 failures that may result in inadequate
9 ventilation.

10 We also continue to have concerns about
11 how we will enforce the proposed language. One of
12 our greater concerns is that there's not a good
13 method for determining the outside air flow, what
14 the outside air flow should be at any point, given
15 point, in a multizone system, and what it actually
16 is.

17 This is particularly a problem because
18 it is our understanding that multizone systems,
19 the DCV will be controlling the total air supply
20 to the zone rather than controlling the amount of
21 outside air directly.

22 During the 1970s in response to the
23 energy crisis at that time engineers rushed to
24 improve the energy efficiency of building HVAC
25 systems. One of the simplest tactics adopted was

1 to dramatically reduce the amount of fresh air
2 supply to building occupants.

3 This resulted in widespread instances of
4 sick buildings syndrome; and moved indoor air
5 quality issues to the forefront of worker health
6 concerns.

7 The Division's goal has been to work
8 with the Commission to help avoid any repetition
9 of these unintended consequences.

10 The Division appreciates the efforts the
11 Commission Staff has made to accommodate our
12 concerns and look forward to working with them on
13 the adoption of our current comments.

14 The changes that we're suggesting would
15 help mitigate some of the negative effects that we
16 expect will result from the increased use of
17 demand control ventilation, particularly where
18 this use is in more complex, multizone systems.
19 However, we continue to believe that it is unwise
20 to mandate the expansion of demand control
21 ventilation to any workplace in a multizone
22 building.

23 In order to protect employee health, as
24 well as the health of the public, ventilation
25 should not be reduced in occupancies in which

1 there is an increased risk of communicable disease
2 transmission. It is also inappropriate to apply
3 demand control ventilation to continuously
4 occupied, dense office spaces. Therefore, again
5 we suggest modifying exception 1 to section
6 121(c) (3) as follows:

7 Classrooms, call centers, office spaces
8 served by multizone system and that are
9 continuously occupied during normal business hours
10 with occupant density greater than 25 per 1000
11 foot square; or 121(b) (2) (B), health care
12 facilities and medical buildings and public areas
13 of social services buildings are not required to
14 have demand control ventilation, and shall not, at
15 any time, reduce ventilation rates below what is
16 required in section 121(b) (2).

17 If the Commission fails to make the
18 changes we have proposed for exception 1, then at
19 a minimum exception 3, which prohibits DCV
20 ventilation reductions in spaces where there are
21 sources of contaminants should be modified to
22 acknowledge that biological contaminants, such as
23 bacteria and viruses, must also be controlled with
24 adequate ventilation.

25 Therefore, we again suggest modifying

1 exception 3 to section 121(c)(3) to read: Spaces
2 that have processes or operations that generate
3 dust, fumes, mist vapors or gases, and are not
4 provided with local exhaust ventilation, such as
5 indoor operation of internal combustion engines,
6 or areas designated for unvented food service
7 preparation, health care facilities and medical
8 buildings, and public areas of social services
9 buildings and beauty salons shall not install
10 demand control ventilation.

11 Failure in CO2 sensors are a significant
12 problem with demand control ventilation. DCV
13 control systems must have the capability of
14 determining when a sensor has failed or is in the
15 process of failing.

16 Further, in the event of a component
17 malfunction the system should default to supply
18 the minimum outside air required in section
19 121(b)(2). Therefore, section 121(c)(4)(F) should
20 be changed to read:

21 CO2 sensors shall be certified by the
22 manufacturer to be accurate within plus or minus
23 75 ppm at 601,000 ppm concentration when measured
24 at sea level and 25 degrees C. Factory
25 calibrated, and calibrated at startup, and

1 certified by the manufacturer to require
2 calibration no more frequently than once every
3 five years.

4 Systems shall have self-diagnostic
5 capabilities so that upon detection of sensor
6 failure the system shall reset to supply the
7 minimum quantity of outside air required by
8 section 121(b) (2) to the zones services by the
9 sensors at all times that the zone is occupied.

10 CO2-based DCV systems must respond
11 before the level in 121(c) (4) (C) reach -- as the
12 level in 121(c) (4) (C) should be the maximum
13 average concentration in any occupancy.

14 Therefore, NA-7.551 should be changed to
15 read, and this relates to bullet three of NA-
16 7.551: DCV-control setpoint is sufficiently below
17 the CO2 concentration by section 121(c) (4) (C) to
18 insure that CO2 concentrations are maintained
19 below the maximum permitted level at all times
20 when the space is occupied.

21 Thank you.

22 CHAIRPERSON PFANNENSTIEL: Sir, have you
23 submitted these comments in writing previously?

24 MR. FERRELL: Have I?

25 CHAIRPERSON PFANNENSTIEL: Yes. Or is

1 this the first time that staff is hearing them?

2 MR. FERRELL: No, I think we've been
3 batting these issues back and forth for a long
4 time.

5 CHAIRPERSON PFANNENSTIEL: These are not
6 new issues? These are the same ones we've been
7 working -- staff has been working on?

8 MR. FERRELL: Yes, ma'am.

9 CHAIRPERSON PFANNENSTIEL: Thank you.
10 Then, Mazi, would you comment?

11 MR. SHIRAKH: Yes. On the issue of
12 differences in semantics in a lot of -- for so
13 many of the occupancies where, you know, OSHA
14 finds them objectionable.

15 What we have is we have provided
16 exceptions for those occupancies, like call
17 centers, health care facilities, medical offices,
18 clinics and so forth, what we say in exception 1
19 that these spaces are not required to meet the
20 demand control ventilation requirements.

21 What OSHA wants us to do is go actually
22 beyond that and ban demand control ventilation
23 from those ever being installed in those
24 occupancies.

25 So, you know, we feel in Title 24 we've

1 done our job by exempting those spaces.

2 And the other problem is many of the
3 spaces like health care facilities, clinics, parts
4 of medical buildings may not even be under our
5 jurisdiction.

6 So by imposing any kind of requirements
7 on it, even, you know, his suggested language,
8 that they shall meet such-and-such ventilation
9 rates at all times, you know, we're probably
10 getting into an area where we don't have
11 jurisdiction. Again, as far as Title 24 is
12 concerned, we've exempted.

13 The exception 3 that he's mentioning,
14 you know, that's a little bit of different
15 exception. Those are buildings that we definitely
16 have jurisdiction over, and we have included
17 certain occupancies like beauty salons, automotive
18 repair shops, and we say you shall not install in
19 those occupancies. So we've done that.

20 And when it comes to some of the other
21 suggestions like sensors being capable of self-
22 calibration or self-diagnostics, you know, we've
23 talked to building engineers and manufacturers,
24 and they're telling us -- and we've talked to
25 folks who are leading our PIER research, with

1 Martha Brook.

2 And they're saying that we're not ready
3 for these sensors yet. It may be possible. I
4 mean, one of the things that they have done, to
5 their credit, is really to put people on notice
6 that they need to do a better job, both
7 researchers and manufacturers. And they are
8 responding.

9 So, you know, we are putting a very
10 comprehensive PIER research together for the next
11 round of standards. Again, Martha Brook is
12 leading that. You know, we have researchers from
13 LBNL and Iowa Energy Center. So a lot of these
14 will be answered probably in the near future. And
15 manufacturers are responding.

16 So we may be ready for some of these in
17 the next round of standards, but the best
18 information that we have today tells us that
19 either the systems are not available, or they're
20 going to have additional cost which we hadn't
21 presented to the public through a public process.

22 So, we are where we are with this.

23 Related to the acceptance requirement in
24 7.5.5, we've gone back and forth with OSHA. I
25 think the language we have is very similar to what

1 they have. Again, you know, we have to fine tune
2 it. So just sitting here without going back
3 through I can't remember actually what the
4 difference is between what we have. But we have
5 responded to many of their comments and it is in
6 there. We have expanded it greatly. And we do
7 checking.

8 Some of the things they want is to test
9 ventilation level at zone level. It's something
10 that is very costly; it's very -- and we have
11 presented that to the industry.

12 So we can monitor the ventilation air at
13 the system level. But, you know, so many cfm is
14 coming through the system. But how each molecule
15 ends up in each space, that is something that
16 requires a lot of instrumentation and monitoring.

17 So that's probably one thing we could
18 not do, and we didn't include it in the acceptance
19 requirements or in the standards. But we do have
20 other requirements in the acceptance requirements
21 that would monitor total ventilation air. And it
22 monitors and records all that.

23 On the sensor failure, what we heard
24 from the industry is that the current energy
25 management systems, they can detect sensor

1 failure. So that's something they suggested and
2 we've added to our code. So, if a sensor fails
3 the energy management system can actually detect
4 that and alert someone. And they can go take
5 corrective action.

6 So, in --

7 CHAIRPERSON PFANNENSTIEL:

8 Commissioner -- oh, I'm sorry, go ahead.

9 MR. SHIRAKH: So we have, I think, done
10 everything we can related to this.

11 CHAIRPERSON PFANNENSTIEL: Commissioner
12 Rosenfeld, you had a comment on this?

13 COMMISSIONER ROSENFELD: One more
14 question about sensor failure. I think OSHA used
15 the words fail safe. That is if a sensor doesn't
16 calibrate right, and fresh air -- you just used
17 the word alarm. Is that okay with OSHA?

18 If an alarm goes off, is that -- or is
19 there a difference of opinion there?

20 MR. SHIRAKH: Well, there is no such
21 thing as a fail safe sensor. The sensors would
22 fail, but our language would alert someone that,
23 you know, someone --

24 COMMISSIONER ROSENFELD: Alert sounds
25 pretty good to me.

1 MR. SHIRAKH: -- that there is a failure
2 and they can take corrective action.

3 MR. FERRELL: Well, and our concern is
4 that in the event of a failure that the default of
5 the system would be to return back to the minimum
6 air supply required.

7 MR. SHIRAKH: And we have that provision
8 in there.

9 COMMISSIONER ROSENFELD: That's what I
10 wanted to know.

11 CHAIRPERSON PFANNENSTIEL: Thank you.

12 MR. SHIRAKH: Yes. So if there's a
13 sensor failure, the system will go to minimum
14 outside air. That's the requirement.

15 MR. FERRELL: And if I may, the language
16 that we've suggested in exception 1, really we're
17 not trying to expand the jurisdiction of CEC.
18 What we're trying to do is make sure that we're
19 dealing with medical occupancies, medical office
20 spaces, places like that where in the event of
21 pandemic flu or similar event, there would be a
22 dramatically increased risk of disease
23 transmission. That under those circumstances the
24 maximum amount of fresh air as required under the
25 standard would be supplied.

1 We're not interested in banning DCV in
2 those occupancies. What we're concerned about is
3 down the line, after a building has gone through
4 commissioning, and the occupancy changes.

5 Because what may be a retail space now
6 may be a medical office space in ten years. And
7 as the field enforcement people that are going to
8 have to look into complaints related to these
9 issues, we want to make sure that it's clear what
10 the ventilation rates would be in those kind of
11 occupancies.

12 COMMISSIONER ROSENFELD: I want to make
13 a positive statement, I hope. Certainly I've been
14 dealing with indoor air quality problems since
15 1973 when we realized we had to tighten up leaky
16 houses. And then we discovered radon and we
17 discovered indescribable amounts of out-gassing of
18 noxious things.

19 It seems to me, I've had long
20 discussions with Mazi about, that we've done
21 pretty well for this time. In three years there
22 will be a revision of Title 24.

23 I strongly support PIER doing some
24 experiments not only on the reliability of sensors
25 and self-calibrating sensors and -- triple

1 sensors, but the idea of increasing fresh air in
2 highly populated spaces.

3 A tiny remark. I think the present
4 standard of having just so many cfm per person in
5 occupied space, independent of the outside
6 weather, is old fashioned. I think most of the
7 time in California the outside temperature is
8 mild. You can have lots and lots of outside air
9 at no cost. You should have minimum outside air
10 on a very cold day in Chicago, or on a very hot
11 day in Bakersfield. But I don't think we run into
12 -- at all. And I would hope that PIER will feed
13 into much, PIER experiments will feed into much
14 better use three years from now.

15 So, I thank you both very much. I'm --
16 other comments from the Commissioners? Jeff?

17 COMMISSIONER BYRON: I do, Commissioner,
18 have a brief comment. But if you're going to move
19 the item, go right ahead.

20 COMMISSIONER ROSENFELD: Let me move the
21 item, and then I encourage comments.

22 COMMISSIONER BYRON: If I may? I'd like
23 to thank those that came today and provided
24 comments. Those were very helpful and
25 appreciated. Obviously demonstrate that

1 demonstration of doing these standards is
2 extremely complicated.

3 In fact, I'm reminded that it takes even
4 longer than the three years that we try and do
5 these standards in oftentimes. And I think that's
6 a statement about the effort of the staff to work
7 through all these comments and the process that's
8 involved here.

9 I had the benefit of a briefing on these
10 standards by Mr. Shirakh and Pennington. And I
11 understand that we are going to be also working
12 more forcefully on increased compliance with our
13 standards. And I'm really glad to hear that.

14 It's my belief that the staff has done a
15 very good job here in addressing, a very thorough
16 job in addressing comments. They've thoroughly
17 briefed me and reviewed with me all the issues
18 that would be raised today. And I'm satisfied
19 that the comments have been addressed.

20 I think it's important that we move
21 ahead with these standards, knowing full well they
22 will be revised again. So I encourage all the
23 stakeholders to participate in this process,
24 continue to participate in this process in a
25 meaningful way.

1 My accolades to the staff. I think
2 you've done an excellent job. And I think your
3 tribute to the late Jon Leber is also very
4 fitting, and I congratulate you on that.

5 So, I would like to second Commissioner
6 Rosenfeld's motion to approve these standards.

7 COMMISSIONER ROSENFELD: And I wanted to
8 make one other comment to Pat -- forgotten your
9 last name -- Splitt, sorry, Pat.

10 I got around to reading this about 11:00
11 last night, and by 2:00 in the morning I was sort
12 of bleary-eyed. I appreciate your comments, but I
13 wish they didn't come in at sort of two minutes
14 before the deadline, the night before the
15 meetings. Can we try to be a little more prompt
16 next time?

17 MR. SPLITT: But they're essentially the
18 same comments I gave at that 45-day language that
19 I thought were important.

20 CHAIRPERSON PFANNENSTIEL: Let me just
21 say that this item has been moved and seconded.
22 And then I got a last blue card from somebody who
23 would like to speak. So, may I ask you to speak,
24 and that you respect where we are in this process.

25 MR. LEASE: Yes, hi. My name is Craig

1 Lease. I represent L&L Suppliers in Stockton,
2 California.

3 Concerning the roof coatings of the
4 gentleman whose samples were lost, and the SRI was
5 added solar reflectance index was added. And it
6 is all through the rulings at 64 where the initial
7 reflective -- or after three year age reflectivity
8 is supposed to be 55. At 64 that is the
9 equivalent of 84 on reflectivity, initial
10 reflectivity being 84.

11 One of my products is an 85 reflective.
12 My gravel system that's lasted up to 48 years, is
13 reflective at 81.

14 So in the formula you subtract
15 essentially 20 points. So 85 minus 20 is 65,
16 which would pass. And for my gravel system, being
17 that it's up and down and multiple reflections, it
18 comes in at 81. 81 minus 20 would be 61. And
19 therefore, that would not be allowed at a SRI of
20 64.

21 So I was going to ask the council or the
22 Commission if it was possible to switch that to
23 60. If it's too late at this point, at least I
24 tried to --

25 CHAIRPERSON PFANNENSTIEL: I think you

1 need to work with staff, sir, and see what we can
2 work on with that.

3 MR. LEASE: That'd be fine.

4 CHAIRPERSON PFANNENSTIEL: Thank you.

5 MR. LEASE: Thank you so much.

6 MR. SHIRAKH: Again, they can use the
7 compliance -- the performance approach, and he'll
8 actually get credit for the thermal mass of the
9 rocks.

10 CHAIRPERSON PFANNENSTIEL: Thank you,
11 Mazi.

12 COMMISSIONER ROSENFELD: Yeah, I think
13 you're okay.

14 MR. LEASE: Thank you.

15 CHAIRPERSON PFANNENSTIEL: Before we
16 vote on this let me just comment that I really do
17 appreciate the incredible work that the staff puts
18 into these updates. There's a reason it takes as
19 long as it does. It's both very complicated and
20 very comprehensive.

21 And I know that I've been pushing,
22 pushing, pushing trying to get the standards
23 adopted so that we can start capturing the savings
24 that they're all about.

25 And I know that there are questions

1 about how much savings we really capture and it
2 has a lot to do with the enforcement that we try
3 to impose. And we need to do better on that. We
4 need to make sure we are capturing every kilowatt
5 hour and every therm that we say we're going to
6 capture.

7 But having said that, I think that the
8 process of working with the many stakeholders, and
9 those many people who bothered to come here today
10 and talk to us, is really important. I think
11 that's how the process works. We need to make
12 sure that it is something that the stakeholders
13 have had some input in; we're not always going to
14 agree.

15 But we need to make sure that we're
16 using a valid professional technical base for the
17 decisions we make.

18 Two points that were made earlier today
19 I just want to stress. And one is about the need
20 for training and education. I think that this is
21 the really big place to look for green jobs in the
22 future. We need to be doing this. We need to
23 have the people out there who are able to work
24 with us on compliance, on enforcement, on
25 technical input, on installation. And this is a

1 very big part of what we're going to do.

2 And the last thing I would say is that
3 there's a lot of, I think, very valid discussion
4 about how consumers will be affected. And we
5 know, because it's a requirement, that the
6 standards must be cost effective.

7 But on the other hand we want to make
8 sure customers understand what's happening; that
9 they understand the choice; that they understand
10 the value of this. And I think we all need to do
11 a better job of that, to make sure that the
12 efficiency that we're building into the new homes
13 and the new buildings in California are ones that
14 do make sense from the public. And we need to
15 communicate that better.

16 With that, any further discussion or
17 questions? No.

18 Moved and seconded.

19 All in favor?

20 (Ayes.)

21 CHAIRPERSON PFANNENSTIEL: Thank you,
22 all.

23 Moving on --

24 (Applause.)

25 CHAIRPERSON PFANNENSTIEL: -- the

1 agenda. Approval of the minutes of the April 16th
2 business meeting. Is there a motion?

3 COMMISSIONER ROSENFELD: I move the
4 minutes.

5 COMMISSIONER DOUGLAS: Second.

6 CHAIRPERSON PFANNENSTIEL: In favor?

7 (Ayes.)

8 CHAIRPERSON PFANNENSTIEL: The minutes
9 are approved.

10 Commission discussion, any discussion?
11 Yes, Commissioner Byron.

12 COMMISSIONER BYRON: Brief item, if I
13 may.

14 CHAIRPERSON PFANNENSTIEL: Excuse me,
15 can people take conversations outside of the room.

16 COMMISSIONER BYRON: It's wonderful to
17 see our staff get accolades for their work.

18 CHAIRPERSON PFANNENSTIEL: All right,
19 Commissioner Byron.

20 COMMISSIONER BYRON: Two brief items.
21 One is I was a little bit remiss earlier on when
22 giving accolades to the staff with regard to the
23 Colusa project. I was also reminded Commissioner
24 Boyd is the lone Presiding Member on that
25 Committee. It's oftentimes a lonely job as the

1 remaining Presiding Commissioner.

2 But no one does this better than he
3 does. And I just wanted to acknowledge, make it
4 clear that he's the one, of course, that worked
5 through the Member's Decision. And we'll be
6 licensing another large, efficient, baseloaded
7 power plant that will greatly be needed in this
8 state.

9 So I wanted to give credit to him for
10 that.

11 But he also unfortunately is ill today.
12 He did attend a meeting -- I'm sorry, a dedication
13 of a new solar facility at Frito Lay in Modesto, I
14 believe, with the Governor. And I saw an email
15 from him earlier today. Apparently he received a
16 number of accolades from executives prior to the
17 dedication for all the work and effort on the part
18 of the Energy Commission Staff in helping see that
19 facility through.

20 I think he has something that he's
21 coming back with from the company, as well, which
22 I'm sure -- well, I hope he'll present it the next
23 business meeting. But he wanted to make sure that
24 that was communicated to staff, as well, today.

25 Thank you.

1 CHAIRPERSON PFANNENSTIEL: Thank you.

2 Other comments?

3 Chief Counsel report.

4 COMMISSIONER BYRON: Excuse me, may I
5 interrupt with one more quick item? Unfortunately
6 I'm losing my second Advisor, Gabriel Taylor.
7 He's moving on to a new position, managing the
8 load management proceeding. And I just wanted to
9 acknowledge all his hard work and that we have
10 obviously found another bright diamond in the
11 rough here in the organization. And it's just so
12 great to have had him, and I'm glad that he's
13 moving on to a wonderfully challenging position
14 for him.

15 COMMISSIONER ROSENFELD: And I'm glad to
16 receive him.

17 CHAIRPERSON PFANNENSTIEL: Chief
18 Counsel.

19 MR. CHAMBERLAIN: In light of the hour,
20 I have no report today.

21 CHAIRPERSON PFANNENSTIEL: Wise.
22 Executive Director report.

23 EXECUTIVE DIRECTOR JONES: No report
24 today, thank you.

25 COMMISSIONER BYRON: Wise.

1 CHAIRPERSON PFANNENSTIEL: Thank you.

2 Leg?

3 LEGISLATIVE MANAGER WEBER: Very quick
4 one. Senator Kehoe, who's Chair of the Senate
5 Energy Committee, is having a hearing in San Diego
6 on Friday on distributed generation. We've been
7 invited to participate, and we will be having a
8 presentation at that hearing. That's all.

9 CHAIRPERSON PFANNENSTIEL: Thanks,
10 Marni. Public Adviser report.

11 MR. BARTSCH: Madam Chair, Nick Bartsch
12 of the Public Adviser's Office. We don't have a
13 report for you.

14 CHAIRPERSON PFANNENSTIEL: Thank you,
15 Nick.

16 Any further public comment this
17 morning -- this afternoon?

18 Thank you, we'll be adjourned.

19 (Whereupon, at 12:35 p.m., the business
20 meeting was adjourned.)

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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 27th day of April, 2008.