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In the Matter of:)
) 17-BUSMTG-01
Business Meeting)
)

APPEARANCES

Commissioners

Robert Weisenmiller, Chair
Karen Douglas
David Hochschild
Andrew McAllister
Janea Scott

Staff Present:

Rob Oglesby, Executive Director
Kourtney Vaccaro, Chief Counsel
Alana Mathews, Public Adviser's Office
Cody Goldthrite, Secretariat

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| Kevin Barker | 2 |
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| Amir Ahyai | 17 |
| Silvia Palma-Rojas | 18 |
| Felix Villanueva | 19 |
| Kevin Mori | 20 |
| Michael Sokol | 21 |

Also Present

Interested Parties

| | |
|--|---|
| Jeff Harris, Ellison Schneider & Harris for Calpine | 3 |
| Catherine Piper | 3 |
| Barbara McBride | 3 |
| Scott Galati, Galati & Blek for Stanton | 4 |

APPEARANCES (cont'd)

Interested Parties (cont'd)

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|--|----|
| Kara Miles, Stanton Energy Reliability Center | 4 |
| Ron Tagiguchi, City of Santa Monica | 9A |
| Joel Cesare, City of Santa Monica | 9B |
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| Masoud Nazari, CA State University, Long Beach | 19 |
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Public Comment

Robert Sarvey
Rob Simpson
George Nesbitt
Matthew Vartola, Bestway
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P R O C E E D I N G S

MARCH 8, 2017 10:07 a.m.

CHAIRMAN WEISENMILLER: Let's begin with the
Pledge of Allegiance.

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

CHAIRMAN WEISENMILLER: Okay. Actually, let's
start out with a minute of silence. The Energy Commission
wants to offer its condolences to the family and friends of
Daniel Collins, the Riverside man who died at the Sentinel
Energy Project in North Palm Springs.

The Energy Commission approved an operating
license for the project in 2010. We will obviously - we
offered our assistance to CalOSHA, the agency responsible
for investigating the accident. The Commission has staff
on site to review whether the plant was working within the
parameters of its license. Now, let's have a moment of
silence.

(Whereupon, a moment of silence for
Daniel Collins was held.)

CHAIRMAN WEISENMILLER: Okay. Let's start the
Business Meeting with the disclosures.

COMMISSIONER McALLISTER: This is Commissioner
McAllister. I just want to disclosure my -- for a few
items, that my wife is a professor at UC Davis Law School,

1 and nothing we're doing today at this meeting has anything
2 to do with UC Davis Law School, but does with UC Davis. So
3 Items 11, 12, 13, 16c and 18a are contracts with UC Davis.
4 So I just wanted to disclose that and not recuse.

5 COMMISSIONER DOUGLAS: And I will tag onto that
6 disclosure to say that I am teaching a renewable energy law
7 course at UC Davis, King Hall, and as Commissioner
8 McAllister said, none of these contracts are with the law
9 school, but I wanted to disclose that for those same items.

10 CHAIRMAN WEISENMILLER: Great. So Item 2 will be
11 held at this time, but let's start with Item 1, the Consent
12 Calendar.

13 COMMISSIONER McALLISTER: Move consent.

14 COMMISSIONER DOUGLAS: Second.

15 CHAIRMAN WEISENMILLER: All those in favor?

16 (Ayes.)

17 CHAIRMAN WEISENMILLER: The consent passes five
18 to zero. So let's go on to Item 3, Delta Energy Center.
19 Staff.

20 MR. ALI: Good morning, Commissioners. My name
21 is Anwar Ali, and I'm the Project Manager for the Delta
22 Energy Center. Delta Energy Center is a nominal 880
23 megawatt combined cycle natural gas fired power plant that
24 was certified by the Energy Commission in February 2000.

25 The power plant commenced commercial operation on

1 June 17, 2002. It is located in the City of Pittsburg and
2 is in Contra Costa County. On January 29, 2017, a general
3 fire occurred at the Calpine's Delta Energy Center that
4 rendered all three facilities inoperable.

5 On February 22nd, 2017, Delta Energy Center filed
6 a petition to amend with the California Energy Commission
7 requesting temporary modification to the Delta Energy
8 Center. The petition request the Energy Commission to
9 modify the Delta Energy Center to make temporary
10 modifications to steam turbine condenser, to run the
11 facility in simple cycle mode.

12 These proposed project modifications would enable
13 Delta Energy Center to continue repairs to the steam
14 turbine while the facility return to service in simple
15 cycle mode to support CalISO in resource planning for the
16 summer of 2017. On March 7th, 2017, CalISO confirmed that
17 Delta Energy Center is needed for reliability and that the
18 Agency supports the temporary modification to run the
19 facility in simple cycle mode.

20 In simple cycle mode the Delta Energy Center
21 would provide approximately 500 to 544 megawatt of
22 capacity, and voltage support to the applicable resource
23 area. On February 24th, 2017, Energy Commission Staff
24 filed in the docket its analysis of the petition and
25 concluded that there would be no additional significant

1 environmental impacts associated with the proposed changes,
2 and that the facility will remain in compliance with laws,
3 ordinances, regulation and the standards.

4 The Staff has also determined that there has been
5 a substantial change in circumstances since the
6 Commission's certification justifying these changes and
7 that the proposed changes would be beneficial by enabling
8 Delta Energy Center to support CalISO and resource planning
9 for the summer of 2017.

10 The Staff is recommending that the Energy
11 Commission approve the proposed project modification in the
12 petition. Thank you.

13 CHAIRMAN WEISENMILLER: Thank you. Applicant.

14 MS. ROOT: I'm going to interrupt for just a
15 second. This is Christine Root, from the Compliance
16 Office. Staff would also like to amend our conclusion and
17 order, in the order. I'd like to read that into the record
18 now, if I may.

19 CHAIRMAN WEISENMILLER: Please.

20 MS. ROOT: "The California Energy Commission
21 hereby adopts staff's recommendation and approves the
22 requested" -- oh, "approves the proposed project
23 modifications to the Commission Decision for the Delta
24 Energy Center requested in the Delta Energy Center's
25 petition for temporary safety modifications." And that's

1 it.

2 CHAIRMAN WEISENMILLER: Thank you. Applicant.

3 MR. HARRIS: Good morning. Jeff Harris, on
4 behalf of the Applicant. Barbara McBride is to my right
5 and Catherine Piper is also with us today. We'll just make
6 ourselves available to answer questions. You're going to
7 maybe hear other things today.

8 But you have before you a pretty simple item.
9 It's a petition for amendment. We think there's a decent
10 argument that an amendment wasn't even required at this
11 point, but it was staff's preference and we believe
12 probably the right decision to go forward with this very
13 transparent public process.

14 That's why we're here before you today. So let
15 me go ahead and stop there, out of interest for your time
16 and we'll be able to answer any questions you have later.

17 CHAIRMAN WEISENMILLER: Okay. In terms of, let's
18 start with public comment from those in the room. Mr.
19 Sarvey.

20 MR. SARVEY: Thank you, Commissioners. Good
21 morning. This is Bob Sarvey here. I'd have to say that
22 this is the fastest amendment I've ever seen processed at
23 the Energy Commission. The amendment was filed on February
24 21st. Three days later on February 24th the CEC staff
25 filed its five-page analysis of the amendment and

1 recommended approval.

2 Now, that's not fast. That's light speed.

3 Section 1769(a)(2) states that, "Any person may file an
4 objection to staff's determination that a formal amendment
5 is not required within 14 days of service on the grounds
6 that the modification does not meet the criteria in the
7 subsection."

8 The problem is, staff issued its five-page
9 analysis on February 24th, which was only 12 days ago. I
10 received staff's notice on March 1st, seven days ago. Your
11 proposed approval here does not allow the public to
12 prescribe 14 days from the date of service of staff's
13 determination, as provided by section 1769(a)(2) for an
14 informal amendment.

15 Clearly if this is a formal amendment, the public
16 should also be offered the 14 days to respond to the
17 staff's analysis and maybe longer. Approval of this
18 petition today would not be consistent with your
19 regulations and would probably considered of an abuse of
20 discretion.

21 That being said, I think we got bigger issues in
22 front of us on this amendment, and considering the Sentinel
23 issue that was surfaced today, this was a serious accident
24 here at Calpine. The root cause of the accident hasn't
25 been determined by Calpine, even though the accident

1 occurred on the 28th of January.

2 Despite that, they would still like you to
3 approve what is being described as a safety modification to
4 allow this project to operate in simple cycle mode.
5 Calpine's safety record here in California is relevant to
6 this amendment and to an investigation.

7 On January 23rd, 2003, a CEC approved Calpine
8 peaker plant in Fairfield exploded during construction. In
9 May of 2003, a Calpine contractor was killed at the Geysers
10 facility. In July of 2003, another Calpine contractor was
11 killed at the Geysers facility.

12 On May 24th, 2007, several Calpine employees were
13 hospital [sic] after exposure to chlorine gas at the Los
14 Medanos Energy Center. Now, on January 29th, 2017, the
15 Delta Energy Center caught fire and destroyed the steam
16 turbine. This is not just a failure of Calpine safety.
17 This is a failure of our compliance.

18 Our compliance mechanism is not working and I
19 want to call for an order instituting rule-making to review
20 our compliance procedures, and I want to make a couple
21 quick recommendations right now about that. First, I think
22 we ought to establish a yearly compliance inspection,
23 similar to the inspections performed by the Consumer Safety
24 and Protection Division at the CPUC to insure compliance
25 with General Order 167.

1 I included CPSD's 2009 report on the Delta Energy
2 Center in the docket for your review. It's TN-216428.
3 Secondly, we need to increase the yearly compliance for
4 each power plant to cover the cost of the inspection. We
5 need a yearly inspection on all of our power plants. When
6 an accident does occur --

7 CHAIRMAN WEISENMILLER: Can you wrap up now?

8 MR. SARVEY: Pardon me?

9 CHAIRMAN WEISENMILLER: I gave you a little bit
10 extra time. It's time to wrap up.

11 MR. SARVEY: Can I just -- a couple more second,
12 please?

13 CHAIRMAN WEISENMILLER: Couple seconds.

14 MR. SARVEY: Okay.

15 CHAIRMAN WEISENMILLER: But again, I'm giving you
16 a couple. So let's --

17 MR. SARVEY: When an accident does occur the CEC
18 should conduct the investigation so the investigation
19 proceeds in a timely manner and is not included by the
20 Applicant's contractual obligations or insurance issues.
21 Operation of any power plan that has had an accident should
22 not resume until the root cause of the accident has been
23 determined and corrective actions have been taken.

24 Now, I haven't had time to thoroughly analyze
25 this amendment, because I wasn't given enough time. So

1 once, I would request that you provide at least the minimum
2 14 days provided by section 1769(a)(2), to examine the
3 Applicant's analysis and the staff's analysis. Thank you.

4 CHAIRMAN WEISENMILLER: Okay. Thank you. Mr.
5 Simpson.

6 MR. SIMPSON: Good morning. I'm Rob Simpson.
7 First, can I confirm that you received my written comments
8 that I submit yesterday?

9 CHAIRMAN WEISENMILLER: Yes. We have a copy.

10 MR. SIMPSON: Thank you. Now, the Applicant and
11 staff were -- described this as a mechanical incident. The
12 newspapers described this as a hydrogen explosion. So
13 there was an explosion at this facility and we're here
14 looking at an amendment to the facility without even having
15 a report on what caused that explosion.

16 I think it's premature to consider an amendment
17 before you even have determination on what the turbine
18 exploded from, while there's still toxic materials on site.
19 There was also a spill. U.S. Fish and Wildlife Service was
20 called in for the toxic spill into the wetlands there.

21 So there's no berm around -- apparently, there's
22 no berm to contain the oil spill. There's hydrogen being
23 released. There's a number of incidents there. But the
24 petition itself, if I submit a petition that had no name,
25 no contact information, you guys would throw it out.

1 This petition has no identifying marks of who
2 wrote it, who to contact or how to get more information.
3 But still, I persevered with staff and I got contact
4 information for Calpine. I submitted a number of data
5 requests, which I've received no response from Calpine, no
6 substance of response from staff.

7 There's been no testimony. There's been no
8 agency. No -- BAQMD hasn't been informed of this
9 explosion, according to our records request at BAQMD.
10 CalISO, after the explosion, they -- the newspaper article
11 said that, "The explosion did not impact grid reliability.
12 The market sets the price, so it's equally plausible that
13 the price could be lower.

14 "So it could be a benefit to the public if this
15 thing doesn't operate because we may be getting lower
16 prices, but we've got no testimony from CalISO." That was
17 Steven Greenlee, spokesman for CalISO. So unless you've
18 got -- until you get an opportunity that we can have data
19 requests, we can have responses from staff or Calpine, I
20 can't effectively comment.

21 Until you have BAQMD that says it's okay to
22 increase the GHG emissions per megawatt, I think it's 30
23 percent increase, this doesn't meet the performance
24 standards of the combined cycle facility. There's nothing
25 in the amendment that says this is a temporary amendment.

1 So Calpine could decide that, we're just going to
2 run it forever in simple cycle. There's no GHG analysis.
3 I filed an informal complaint. There was no substantive
4 response. So I filed a formal complaint regarding the
5 explosion and lack of information to the public.

6 So I think there's a lot of -- I've got a stack
7 of data requests that haven't been responded to. So I feel
8 it's premature to approve this project without some Agency
9 coordination --

10 CHAIRMAN WEISENMILLER: Okay. Thank you.

11 MR. SIMPSON: -- public participation. Yes.

12 CHAIRMAN WEISENMILLER: Thanks. Anyone else in
13 the room have comment? Anyone on the line? Okay. Let's
14 start with staff. You have a response?

15 MS. ROOT: This is Christine Root again, the
16 Compliance Office Manager. I will state for the record
17 that the Energy Commission Staff is conducting a formal
18 investigation of the cause of the fire, but that is
19 confidential right now until we reach a determination as to
20 the cause.

21 And I also would like to highlight that the
22 California ISO docketed a letter stating the need for this
23 project on March 6th. So we do have in the record the need
24 for this modification from the ISO. I will refer to
25 technical staff to address the other comments made.

1 CHAIRMAN WEISENMILLER: Any legal staff to also
2 address the legal questions?

3 MS. DeCARLO: Right.

4 CHAIRMAN WEISENMILLER: So start there.

5 MS. DeCARLO: Lisa DeCarlo, Energy Commission
6 Staff Counsel. With regard to the 14-day requirement
7 mentioned by Mr. Sarvey, that's actually not applicable in
8 this instance. That's under section 1769(a)(2) of our
9 Regulations, and we are not proceeding the amendment
10 through that section.

11 We're processing it through section 1769(a)(3),
12 which is why we're here before you asking for approval. So
13 the 14-day requirement does not apply in this instance.

14 COMMISSIONER DOUGLAS: And to be more specific,
15 Ms. DeCarlo, maybe you could explain the difference between
16 these two sections.

17 MS. DeCARLO: Sure. 1769(a)(2) is where staff is
18 allowed to make its determination, sua sponte, on its own
19 after its own investigation, its own analysis, without
20 going to the Commission for approval. So then that's why a
21 14-day notice is required to allow parties sufficient time,
22 interested public, to review staff's analysis and file an
23 objection if they so chose, in which case it would bump it
24 to a full Commission decision.

25 Whereas, 1769(a)(3) just goes straight to a

1 Commission decision, either on staff's own determination
2 that this is warranted, or as a result of an objection
3 under 1769(a)(2).

4 CHAIRMAN WEISENMILLER: Lisa would you also talk
5 about -- discuss Mr. Simpson's just claims about the notice
6 being inadequate in terms of the Calpine, the contact, et
7 cetera?

8 MS. DeCARLO: Oh. Perhaps Calpine could speak to
9 that. From my review of the notice it seems to me all the
10 requirements, I'm not sure specifically what section Mr.
11 Simpson is arguing that the petition does not comply with.

12 CHAIRMAN WEISENMILLER: Okay. We'll get to that
13 later, I'm sure. Staff, continue.

14 MR. LAYTON: This is Matthew Layton, with the
15 Energy Commission. Mr. Sarvey and Mr. Simpson have raised
16 a lot of concerns about how this was processed. Staff
17 understands their concerns. We think it's premature to
18 suggest it was an explosion.

19 It was a fire. What exactly caused what, we
20 don't know what precipitated what. So but we haven't seen
21 this before. So we're not concerned that there's a common
22 mode failure that we have to be concerned about at other
23 power plants. And we think the safety systems in place did
24 work correctly.

25 The notifications did occur. What we have right

1 now is a steam turbine that's damaged and a generator
2 that's damaged and Calpine is working diligently to fix
3 those. We understand what Calpine is proposing in
4 converting over to simple cycle.

5 Mr. Sarvey and Mr. Simpson, Mr. Simpson in
6 particular, raised concerns about that there's going to be
7 a huge increase in greenhouse gas emissions from this
8 project, because it runs so much currently as a combined
9 cycle. We think it'd be very difficult for it to be
10 dispatched a lot, anywhere near as much as a simple cycle,
11 especially with a simple cycle that has this extra kicker
12 of this HRSG that has to be constantly run, as well.

13 I think the ISO is correct in suggesting that it
14 could be useful to have it online this summer. It will
15 probably be a mechanism of last resort because it is not
16 the most flexible peaker that we will have in the fleet;
17 nor is it the most efficient peaker that we will have in
18 the fleet.

19 But when it is called up it can respond. We
20 think the minor changes to the condenser, isolating the
21 condenser from the steam turbine and putting in a rupture
22 disk is standard operating procedure. We don't see any
23 real issues with that.

24 We think it's very correct to actually put the
25 ruptured disk in. Obviously, dumping steam directly to a

1 condenser is not the preferred mode of operation, but it
2 currently, the way it's designed right now, it already --
3 you can already dump steam directly to the condenser during
4 startup mode. The bypass piping is there. It's just a
5 matter of putting the rupture disk in for an additional
6 safety.

7 MS. VACCARO: So this is Courtney Vaccaro, Chief
8 Counsel. One thing I -- a point I think is important to
9 underscore, the comments that were raised today indicate an
10 interest in knowing what happened and figuring out whether
11 or not there were any violations of the decision that
12 governs this plant.

13 As you heard from Ms. Root, that's something that
14 staff is looking into. And if in fact Mr. Simpson
15 submitted a request for investigation under our regulations
16 it will be given due consideration. As I sit here, I'm not
17 aware that any such document has been submitted to the
18 Executive Director, as required by our regulations.

19 But if it is, then it will be given due
20 consideration. Very different set of issues than what's
21 before you today, and I think it's very important to draw
22 that distinction, because what you're doing today does not
23 minimize or change the fact that we still need to
24 understand what happened and we need to understand whether
25 or not there might have been potential violations of the

1 certification.

2 So I just want to underscore those points in case
3 they get blurred or lost somehow in today's discussion.

4 CHAIRMAN WEISENMILLER: No. I appreciate that.
5 I think also it's probably fair to point out, although I
6 think Mr. Sarvey alluded to it, that the PUC has its own,
7 you know, investigations on power plants generally,
8 particularly from a liability perspective.

9 And so I would anticipate and hope that we're
10 coordinating our investigation with their investigation,
11 but obviously, we're looking at two different facets of the
12 issue.

13 MS. ROOT: And I -- this is Christine Root again
14 -- and I will confirm that we are working with the PUC on
15 the investigation and we are in communication on that
16 front.

17 CHAIRMAN WEISENMILLER: Okay. Applicant.

18 MR. HARRIS: Just one more thing on the notice
19 issue. I first of all join in Ms. DeCarlo's comments. I
20 think she got it exactly correct. I think there's also an
21 additional basis for you to act today and that's the fact
22 that this item was on your Agenda, published in a timely
23 way and put out for public notice.

24 Obviously, there's actual notice to people who
25 have arrived here because they know -- they knew to come

1 today. But that's an additional basis upon which you're
2 allowed to act today. So don't be taken off track by the
3 suggestion that you're not allowed.

4 The Chair has plenary authority to act these
5 items, and it's also been put on the Agenda and made
6 publicly available for you to act today. And so you're
7 well within your authorities to approve this today, and
8 thank you for doing so.

9 And then just one last thing. There's a lot of
10 factual allegations in Mr. Simpson and Sarvey's documents
11 that I'm not going to respond to, but I do want to kind of
12 on a blanket basis issue a general denial to those, so that
13 no one says that I later admitted it, because I didn't try
14 to deny it. But I'm not going to take your time to go
15 through each one of those things for you today. So thank
16 you.

17 CHAIRMAN WEISENMILLER: Okay. Let's transition
18 to Commissioners. Commissioner Douglas.

19 COMMISSIONER DOUGLAS: So I will say briefly, you
20 know, I think Ms. Vaccaro's suggestion that we be very
21 clear about what's before us in these two different threads
22 of what's before us is really important. There -- you know
23 -- this -- the fire, you know, whatever did happen at the
24 plan is something we take very seriously and we are
25 investigating it and we will do everything we can to get

1 down to the cause of it and to evaluate whether and all of
2 the conditions and the license were being complied with and
3 to take appropriate action.

4 And so that is ongoing and to the extent that we
5 learn something that may be applicable to, you know,
6 classes of power plants or classes of, you know,
7 activities, we'll apply that knowledge. And safety at
8 these plants is job one. It's very important.

9 So that is ongoing. And the question that is
10 before us is to approve what is, from a standpoint of
11 physical modification, and pretty modest modifications that
12 allow this power plant to operate differently than it has
13 been operated.

14 I think that staff very well could have addressed
15 this through the staff approved amendment route, but I
16 think they anticipated that there would be public interest
17 and made an appropriate decision to bring this to a
18 business meeting. And in fact, there is public interest
19 and so here we are.

20 In terms of the amendment that's before us today
21 I do recommend it for the Commission's approval. I think
22 we should act on it. I think it will be or at least could
23 be valuable to have this power plant in the potential
24 supply portfolio.

25 As Mr. Layton said, it will not be either the

1 most agile or the most efficient peaking plant out there
2 and far from it. And so we're not -- I'm not sure that it
3 will operate all that much, but if it's needed it will be
4 there and that is important.

5 And the investigation as to the cause of the fire
6 and the operation of the plan and compliance with our
7 conditions will run its course and it'll go where it goes.
8 But for the amendment I do recommend it for our approval.

9 COMMISSIONER McALLISTER: So to staff and the
10 Applicant, I guess just one question. Could you address
11 the -- sort of the "temporary" issue? You know, what's the
12 plan for the back end, you know, the concern raised in the
13 comment I think Mr. Sarvey, well, actually, maybe both Mr.
14 Sarvey and Mr. Simpson, about you know, this could go on
15 forever.

16 And I guess what's the plan to sort of get back
17 to standard operating procedure, make the fix, get the
18 efficiencies back and then, yeah, that's -- I think that's
19 a valid point that deserves to be talked about.

20 MR. HARRIS: I see staff very quickly deferring
21 to me. So thank you. Well, we're currently taking a root
22 cause examination, and I won't let my liberal arts
23 education substitute for the mechanical and the electrical
24 engineers who are out there analyzing the situation right
25 now.

1 So we don't have a good sense of exactly when
2 we'll have some good information on what occurred, but once
3 we have that information at that point we'll be at a
4 decision point of whether we would proceed with the
5 repairs. And if we didn't proceed with the repairs we
6 would be back before you with an amendment, so.

7 COMMISSIONER McALLISTER: So is there a time
8 frame for this? I mean, is this a permanent amendment that
9 could just go on?

10 MS. ROOT: No. This is not a permanent
11 amendment. You know, because the investigation is ongoing
12 and we don't know the root cause, right now our best guess
13 is possibly a year. But we will revisit this when the
14 investigation's further along. And if this is becoming a
15 permanent situation we will insist that an amendment be
16 filed.

17 COMMISSIONER McALLISTER: Okay. Thanks.

18 MR. HARRIS: And in that connection we would --
19 at any time you request, welcome the opportunity to come
20 back and update you on the situation as we move our
21 forward. It's not our intent this be permanent.

22 COMMISSIONER DOUGLAS: All right. Well, that was
23 a helpful dialogue, Commissioner McAllister. And so with
24 that understanding I'll move approval of this item.

25 MS. VACCARO: Before -- I'm sorry, I'm going to

1 ask you to modify that motion just a little bit, because
2 you want to insure that it captures the oral changes made
3 by Ms. Root to the proposed order --

4 COMMISSIONER DOUGLAS: Right.

5 MS. VACCARO: -- as well. So I think you would
6 move the item, including the oral amendment made on the
7 record.

8 COMMISSIONER DOUGLAS: Thank you. So I move the
9 item, including the oral changes made by Ms. Root.

10 COMMISSIONER SCOTT: Second.

11 CHAIRMAN WEISENMILLER: All those in favor?

12 (Ayes.)

13 CHAIRMAN WEISENMILLER: This passes five to zero.
14 Thank you. Let's go on to Item 4.

15 MR. HEISER: Good morning. This is John Heiser.
16 I'm the STEP Division Project Manager for the Energy
17 Reliability Center. With me is Lisa DeCarlo, Staff
18 Counsel. This Agenda item entails two actions regarding
19 the project. Staff supporting the Executive Director's
20 recommendation of data adequacy or the Application for
21 Certification, and possible appointment of a Siting
22 Committee for Stanton.

23 The AFC seeks certification for a proposed 98-
24 megawatt power plant, with two natural gas fired simple-
25 cycle GE LM 6000 turbine units, fitted with clutches for

1 generation -- excuse me -- for operation as synchronous
2 condensers and combined with 10 megawatts of battery
3 storage.

4 The project is located in the city of Stanton,
5 Orange County, California, adjacent to the Southern
6 California Edison Barre Peaker Power Plant and the Barre
7 substation. Stanton would provide generation for local
8 reliability in the Southern California Edison, West Los
9 Angeles Basin Subarea. This project was selected as part
10 of Southern California Edison's 2013 Local Capacity
11 Requirements Request for Offers, and the power purchase
12 agreement approved by the California Public Utility
13 Commission.

14 If approved, Stanton Construction is anticipated
15 to begin in the fourth quarter of 2018, the full-scale
16 commercial operation to begin in the fourth quarter of
17 2019. The Stanton Energy Reliability Center AFC was
18 submitted October 26th, 2016. Staff's initial review of
19 the AFC found that the information provided by the
20 Applicant was not data adequate at that time.

21 Since the December 2016 Business Meeting the
22 Applicant has provided the requested information to staff
23 to complete the application. The final filing required for
24 data adequacy was made on February 24, 2017, when the South
25 Coast Air District submitted the air permit application

1 completion letter.

2 Therefore, staff is recommending the Commission
3 accept the Executive Director's recommendation to find the
4 application complete and name a committee. Siting staff,
5 Staff Counsel and the Applicant are available, should the
6 Commission have any questions. Thank you.

7 CHAIRMAN WEISENMILLER: Thank you. Applicant.

8 MR. GALATI: This is Scott Galati, representing
9 Stanton Energy Reliability Center, LLC.

10 MS. MILES: And I'm Kara Miles. I'm the
11 President of Stanton Energy Reliability Center.

12 MR. GALATI: Commissioners, we'd like to request
13 that you approve the -- adopt the staff recommendation and
14 assign a committee today. We'd also like to thank Mr.
15 Heiser very specifically for arranging good communication
16 between us and the staff so that our technical experts and
17 their technical experts could understand what was needed,
18 specifically in the area of transmission system
19 engineering.

20 Just wanted to make sure that that was
21 acknowledged, because I think that helped us quite a bit.
22 And with that, I think Ms. Miles would like to make a brief
23 statement about the project, since it's our first time to
24 tell you about it.

25 MS. MILES: Commissioners, thank you for the

1 opportunity to give you a brief overview of the Stanton
2 Project and to explain what makes this project so unique.
3 The Stanton Project is a state of the art energy
4 reliability resource, which has been designed to deliver
5 superior reliability services and a minimal carbon
6 footprint and low emissions profile.

7 The project is located in Orange County and it
8 utilizes two General Electric LM 6000 hybrid EGT units.
9 Each unit consists of an LM 6000 gas turbine, a clutch to
10 provide operational flexibility as a synchronous condenser
11 and an integrated 10 megawatt battery energy storage
12 system.

13 It'll provide 98 megawatts of EGT capacity and
14 provides a broad array of unique reliability benefits that
15 neither gas turbines nor batteries can achieve on their
16 own. It's the unique integration of these two technologies
17 that provides these attributes, which include local
18 reliability to support the West L.A. Basin, assisting in
19 the integration of renewable energy resources.

20 And then the unique attributes of the EGI include
21 greenhouse gas free operating reserves, flexible capacity
22 without start time, peaking energy for local contingencies,
23 voltage support and primary frequency response without any
24 fuel burn, superior transient response attributable to the
25 co-location of the gas turbine and the batteries and a gas

1 turbine supervisory control system which manages the
2 batteries state of charge. Thank you for this opportunity.

3 CHAIRMAN WEISENMILLER: Thank you. Any public
4 comment from anyone in the room? Any comment from anyone
5 on the line. Let's transition over to the Commissioners.
6 Any comments?

7 COMMISSIONER DOUGLAS: Well, I'll move to find
8 the data adequate.

9 COMMISSIONER SCOTT: Second.

10 CHAIRMAN WEISENMILLER: Others in favor?

11 (Ayes.)

12 CHAIRMAN WEISENMILLER: So the data accuracy is
13 approved five to zero and I would like to appoint a
14 committee; let presiding member would be Commissioner Scott
15 and second member would be Commissioner Douglas. Motion

16 COMMISSIONER McALLISTER: All right. I'll --

17 CHAIRMAN WEISENMILLER: No. I was going to
18 create somebody else to do that.

19 COMMISSIONER McALLISTER: -- I'll move the
20 committee as stated.

21 MR. HOCHSCHILD: Second.

22 CHAIRMAN WEISENMILLER: All those in favor?

23 (Ayes.)

24 CHAIRMAN WEISENMILLER: This also passes five to
25 zero.

1 MS. RAITT: Good morning. I'm Heather Raitt,
2 Program Manager for the 2017 Integrated Energy Policy
3 Report, or IEPR for short. Staff is asking for the
4 Commission's approval of an order instituting informational
5 proceeding together and assess information needed for
6 preparing the 2017 IEPR.

7 The Commission is required, under Public
8 Resources Code 25302 to prepare an IEPR every two years
9 with an update in the intervening year. Data assesses
10 California's electricity, natural gas and transportation
11 fuel sectors. Chair Weisenmiller is the lead Commissioner
12 for the 2017 IEPR.

13 The Chair released a draft Scoping Order on
14 January 11th, 2017, with a request for comments by January
15 25th, 2017, with some parties submitting comments after
16 that date. The Final Scoping Order was issued on March
17 6th, 2017. The Scoping Order identifies the topics and
18 general schedule for the proceeding.

19 Adoption of this order will allow the lead
20 Commissioner to collect information that is needed to
21 complete the 2017 IEPR that is not identified in the
22 Commission's Data Collection Regulations. So that's it.
23 Thanks.

24 CHAIRMAN WEISENMILLER: Thank you. Any public
25 comment? Anyone on the phone? So transition to the

1 Commissioners. For this year's IEPR, at the same time
2 we're going through a process to revise the data
3 regulations, and as we're going forward it's pretty clear
4 that there are areas we're going to need information this
5 year.

6 Well, a, the regs are not going to be done until,
7 you know, hopefully kick into place next year. And so
8 there's information we're going to need in this IEPR, and
9 by adopting the OII it gives us a clear legal context to do
10 data request on topics that deal with the expanded nature
11 of this IEPR. Any?

12 COMMISSIONER McALLISTER: So having done the last
13 two full IEPRs, I'm very grateful to the Chair for stepping
14 up and doing this one, but -- and I think that's entirely
15 appropriate, because there are a lot of big topics and
16 they're cross-cutting topics, and the leadership that the
17 Chair can provide as sort of a convener and facilitator of
18 this broader discussion largely around SB 350 I think is
19 really helpful and appropriate in this particular IEPR.

20 It's going to serve a great foundation, so I'm
21 very, very supportive of the Scoping Order and looking
22 forward to working on some, many of the topics this year.
23 Great. Okay. I'll move this item.

24 COMMISSIONER DOUGLAS: Second.

25 CHAIRMAN WEISENMILLER: All those in favor?

1 (Ayes.)

2 CHAIRMAN WEISENMILLER: This passes five to zero.
3 Thanks. Let's go on to Appliance Energy Efficiency
4 Regulations.

5 MR. SAXTON: Good morning, Chair and
6 Commissioners. My name's Patrick Saxton and I'm an
7 engineer in the Appliances and Outreach and Education
8 Office in the Commission's Efficiency Division. With me is
9 Linda Barrera, from the Chief Counsel's Office.

10 Staff is proposing the adoption of a resolution
11 which encompasses three items related to emergency
12 regulations to amend the California Appliance Efficiency
13 Regulations for Residential Air Filters. The three items
14 are, one, proposed express terms that delay the compliance
15 date by when residential air filters for use in forced air
16 heating or forced air cooling equipment that are sold or
17 offered for sale in the State of California must comply
18 with the appliance efficiency regulations from July 1,
19 2016, to April 1, 2019.

20 Two, a finding of emergency pursuant to
21 Government Code section 113461, and three, a finding that
22 the proposed emergency regulations for residential air
23 filters are exempt under the California Environmental
24 Quality Act. I would like to emphasize that the items
25 before the Commission are related only to the California

1 appliance efficiency regulations, often referred to as
2 Title 20.

3 These items do not affect the California building
4 energy efficiency standards, often referred to as Title 24.
5 Irrespective of any decision made by the Commission today,
6 the building energy efficiency standards will continue to
7 require new residential hearing, ventilation and air
8 conditioning systems to be provided with the air filters
9 that are labeled to disclose the efficiency and pressure
10 drop ratings of the filter.

11 As background information, the Commission adopted
12 Title 20 adopted appliance efficiency regulations for
13 residential air filters on May 13, 2015. Those regulations
14 were effective July 1, 2016, and had mandatory testing,
15 certification and marking requirements, but did not set a
16 specific standard or threshold for residential air filters.

17 The requirements were meant to convey information
18 to a consumer about an air filter's ratings for metrics
19 such as filter efficiency by particle size or initial
20 resistance to air flow. This information would allow a
21 consumer to better compare the rated performance of
22 replacement air filters and to match a replacement air
23 filter with the specific design requirements of the
24 consumer's HVAC system.

25 In September 2016, several air filter

1 manufacturers contacted staff and expressed difficulty in
2 marking and certifying their residential air filters in
3 compliance with the appliance efficiency regulations.
4 Among the issues raised were direction on how to identify
5 and select which of the residential air filters were
6 required to be tested pursuant to the requirement to test a
7 small, medium and large air filter, clarification on how to
8 apply the test results from the small, medium and large air
9 filters to the rest of the manufacturers' air filters in
10 the same product family, and guidance as to why the
11 manufacturers' attempts to complete the required product
12 certification to the Commission's database were being
13 returned by the database as invalid.

14 Staff had several discussions and meetings with
15 industry in order to better understand the manufacturers'
16 concerns. It has recently become clear that manufacturers
17 of residential air filters face significant barriers to
18 compliance with the existing regulation.

19 Staff is concerned that the lack of specificity
20 in the existing Title 20 regulations for residential air
21 filters could negatively affect the public and other
22 stakeholders. Air filters are a critical and necessary
23 component of residential HVAC systems, for protecting
24 equipment and for removing particulate pollutants to help
25 maintain acceptable indoor air quality.

1 However, under the existing regulations,
2 manufacturers are forced either to continue to supply the
3 California market with non-compliant residential air
4 filters, or to remove all residential air filters
5 manufactured on or after July 1, 2016, from the California
6 market.

7 If manufacturers continue to supply non-compliant
8 residential air filters to the California market they are
9 subject to penalties through an enforcement action by the
10 Energy Commission. If manufacturers remove all residential
11 air filters manufactured on or after July 1, 2016, from the
12 California market, there is a near certainty of an
13 insufficient supply to meet the needs of the public for
14 replacement residential air filters. Therefore, staff asks
15 the Commission to find that an emergency and the need for
16 immediate action exists as a result of this situation.

17 To address concerns related to the existing
18 regulations staff proposes to delay the date by when
19 residential air filters for use in forced air heating or
20 forced air cooling equipment that are sold or offered for
21 sale in the State of California must comply with the
22 mandatory testing, certification and marketing requirements
23 in the California Code of Regulations Title 20, sections
24 1606, Table X and 1607(d)(12), from July 1, 2016, to April
25 1, 2019.

1 Delaying the compliance date of the mandatory
2 requirements for residential air filters would avoid harm
3 to the public and the stakeholders affected by these
4 regulations. This will provide the Commission with
5 sufficient time to study, address and provide clarity in
6 the regulations and to adopt appropriate amended
7 regulations to overcome barriers to compliance without
8 causing serious harm to the general welfare of the public.

9 Staff asks that the Commission adopt the
10 resolution before them for emergency regulations to amend
11 the California appliance efficiency regulations for
12 residential air filters. Line and I are available for any
13 questions.

14 One final note for anyone who would like to make
15 comments on this item. Comments made here at the Business
16 Meeting will only inform today's Commission decision on
17 whether to adopt the proposed emergency regulations. If
18 the proposed emergency regulations are adopted, staff will
19 submit an emergency rule-making package to the Office of
20 Administrative Law.

21 Once the submittal has been made, there will be a
22 separate five-day comment period to inform the Office of
23 Administrative Law's decision on whether to approve the
24 emergency rule-making. The Notice of Emergency Rule-Making
25 Action, which has been posted in the docket for this item

1 and sent to four Commission listservs includes information
2 on how to submit comments to the Office of Administrative
3 Law during this five-day comment period. Thank you.

4 CHAIRMAN WEISENMILLER: Thank you. Any comments
5 from anyone in the room? How about on the line? Yeah.
6 Mr. Nesbitt, would you please speak?

7 MR. NESBITT: Yes. George Nesbitt, HERS Rater.
8 Can you hear me?

9 CHAIRMAN WEISENMILLER: Yes.

10 MR. NESBITT: Yeah. I think this is a fairly
11 significant delay and my concern would be that this is
12 information not just consumers need, but also design
13 professionals, contractors need, and this will delay us
14 getting access to the information we need.

15 And I'd much rather keep the rules in place, even
16 if they're imperfect, and we can work to improve them, but
17 not, you know, have punitive penalties against non-
18 compliant products in the short term, but work to fix it
19 rather than completely delaying it, potentially delaying
20 access to vital information. Thank you.

21 CHAIRMAN WEISENMILLER: Thank you. Staff, any
22 response?

23 MR. SEXTON: Yes. So the length of the delay is
24 essentially a maximum amount of time that may occur. It
25 includes the 180-day emergency period, the possibility of

1 two additional 90-day extensions, and then our one-year
2 mandatory period between adopting an appliance regulation
3 and when it can become in effect, which is in the Warren
4 Alquist Act.

5 So when we do the follow on regular rule-making
6 this would be a maximum length of time. With regard to
7 keeping an imperfect rule in place, the concern is because
8 of the lack of specificity manufacturers may not be
9 choosing products to test in a similar manner, and they may
10 not be applying that test data in a similar manner.

11 So if two different -- if two similar pieces of
12 information are arrived at with different methodologies,
13 they not actually be comparable and in fact might introduce
14 additional confusion to the market.

15 CHAIRMAN WEISENMILLER: Thank you. Let's
16 transition now to Commissioners.

17 COMMISSIONER McALLISTER: So thanks for that,
18 Pat. So just a little bit of background very briefly. So
19 I support this item. Really, the concern is, you know, we
20 did this in the first place to -- really as a -- just to
21 provide some clarity to the marketplace.

22 And just as Mr. Nesbitt said, that is -- has been
23 and remains the goal. The concern, really, with doing it
24 any other way but this is that we -- this is a significant
25 enough clarification and working with stakeholders to come

1 up with a way of applying -- you know -- determining a
2 metric that everybody can use and a test procedure
3 everybody can use and is on board with to get this done
4 properly.

5 And that -- any other way but this would sort of
6 run the risk of being looked at as an underground rag and
7 we definitely don't want to go there. So I think this is
8 the most transparent and straightforward way to do this
9 that gets us where we want to go as effectively as
10 possible. So I'm in support of this item. And so I'll
11 move Item 6.

12 COMMISSIONER SCOTT: Second.

13 CHAIRMAN WEISENMILLER: All those in favor?

14 (Ayes.)

15 CHAIRMAN WEISENMILLER: So Item 6 passes five to
16 zero. Thank you.

17 MR. SAXTON: Thank you.

18 MR. STEFFENSEN: Good morning, Chair and
19 Commissioners. My name is Sean Steffensen. I'm a
20 Mechanical Engineer for the Appliance Efficiency Program in
21 the Efficiency Division, and I'm here to seek approval of
22 two changes to the appliance efficiency standards to
23 address an emergency situation affecting residential pool
24 pump and motor combinations and replacement residential
25 pool pump motors.

1 In December 2004, the Commission approved pool
2 pump motor regulations to save energy used in pool pump
3 motors. The regulations prohibited two specific motor
4 types, capacitor start induction run and split phase motor
5 types.

6 To insure compliance with this regulation, the
7 Commission required manufacturers to certify the type of
8 motor used in the construction of a pool pump. The
9 Commission provided five motor types from which
10 manufacturers could choose to verify compliance with the
11 regulations.

12 Recently, stakeholders expressed concern that the
13 regulations do not allow the certification of the permanent
14 magnet synchronous motor type, since this motor type is not
15 one of the five permissible types available in the 2004
16 regulations.

17 The permanent magnet synchronous motor, or PMSM
18 for short, is used in storable pools as opposed to in-
19 ground pools. They are small pumps with capacities less
20 than one horsepower. Although other compliant motor types
21 may be substituted, these types are not suitable since
22 these motors are much larger than is necessary, leading to
23 more water pumped than is needed, more energy used than is
24 needed and therefore, wasted energy.

25 The PMSM pool pumps are supplied with the vast

1 majority of storable pool sets, and exclusively with
2 storable pools that cost between \$149 and \$500. These
3 storable pools are typically the only affordable option for
4 low income consumers and tenants, and a key way for these
5 consumers to be able to afford to keep cool in the summer,
6 absent other cooling technologies.

7 If the manufacturers are unable to sell
8 residential pool pumps powered by PMSM motors to the
9 California market due to barriers to compliance there will
10 be a shortage of an affordable product, and this shortage
11 will disproportionately impact low income residents in
12 California.

13 For these reasons, Commission staff has found
14 that the proposed emergency regulations are necessary to
15 address a situation that calls for immediate action to
16 avoid serious harm to the general welfare of the public,
17 including low income consumers.

18 Immediate action is needed to allow the sale of
19 storable pools containing pool pumps powered by PMSM
20 motors. The sale of storable pools is seasonal, as sales
21 occur during the spring and early summer. Most sales occur
22 in March and April so that consumers can maximize the value
23 of their purchase by having the pool available for most of
24 the summer.

25 If barriers to compliance with the existing

1 regulations are not addressed, California consumers will
2 not be able to purchase these pool types. Thus, staff
3 proposes that the Commission take action in March to insure
4 that storable pools are available for sale in the spring
5 and summer of 2017.

6 Specifically, staff recommends that the
7 Commission amend California Code of Regulations, Title 20,
8 section 1602(g) and section 1606, Table X, subsection G, to
9 define PMSM motors found in residential pool pumps and
10 motor combinations or used as replacement residential pool
11 pumps motors, and to allow the certification of residential
12 pool pumps powered by PMSM.

13 This modification will allow the sale and offer
14 for sale of storable pools containing residential pool
15 pumps powered by PMSM motors, thereby providing the public
16 with affordable and less energy consuming residential pool
17 pump motors that would not otherwise be available in
18 California.

19 Therefore, staff recommends that the Commission
20 approve Item Number 7, which will address the availability
21 of storable pools equipped with pumps powered by PMSM
22 motors. I'm happy to answer any questions.

23 CHAIRMAN WEISENMILLER: Thank you. Let's start
24 with any comments from anyone in the room. Please come on
25 up, identify yourself for the court reporter.

1 MR. VARTOLA: Good morning, Commissioners. My
2 name is Matthew Vartola, and I'm here representing a
3 manufacturer of PMSM pool pumps, Bestway. I just want to
4 go on record to fully support the emergency amendment that
5 Mr. Steffensen has brought forward, and also to express our
6 appreciation with Mr. Steffensen and his team for their due
7 diligence and swift action to this matter. Thank you.

8 CHAIRMAN WEISENMILLER: Thanks for being here.
9 Anyone else in the room? Then let's go to on the line, I
10 believe from Mr. Nesbitt again?

11 MR. NESBITT: George Nesbitt, HERS Raters. I
12 would generally support this resolution. I think one of
13 the difficulties we have with making regulations sometimes
14 is for one reason or another we exclude a certain
15 technology. Yet that technology may actually be able to
16 meet our energy goals.

17 And I think we need to write regulations in a way
18 that we focus on what our goal is, what the efficiency
19 level is and not necessarily restrict what technology, to
20 allow any technology that can meet that goal to comply,
21 rather than to just eliminate a specific technology
22 outright. Thank you.

23 CHAIRMAN WEISENMILLER: Thank you. Anyone else
24 on the line. Let's transition to the Commissioners.

25 COMMISSIONER McALLISTER: So Sean, thanks for all

1 the work on this. I think, you know, this is a pretty
2 straightforward one. You know, the -- to call something an
3 emergency and, you know, the language that needs to be used
4 to justify is sort of a significant public harm.

5 I think really this is about excluding a product
6 from the marketplace that was excluded without intention
7 from the -- you know -- by the regs. So this is something
8 that needs to be fixed. You know, we're not in the
9 business of distorting the market and want to make sure
10 that everything, every valid product is available for sale.

11 Particularly here where this is a product that --
12 you know -- with a broad base of consumers and it's
13 relatively inexpensive and particularly as we approach
14 summer, needs to be out there. So I fully support this
15 item and move Item 7.

16 MS. VACCARO: Before you vote.

17 COMMISSIONER McALLISTER: Okay.

18 MS. VACCARO: Excuse me. I just -- I do want to
19 just make sure that the record is completely clear here
20 that your statement was in addition to what has been put in
21 the record as to why there is an emergency and why you're
22 making an emergency finding, and the importance of that in
23 moving forward with the --

24 COMMISSIONER McALLISTER: Yeah, great. I don't
25 mean to downplay the statement of an emergency, because I

1 think we found that it is, and you know, we had to move
2 swiftly as a result. So a lot of the work going forward
3 will be to cross -- you know -- to follow the process
4 associated with emergency and amending the regs in the
5 right way. So again, I'll move Item 7.

6 COMMISSIONER DOUGLAS: Second.

7 CHAIRMAN WEISENMILLER: All those in favor.

8 (Ayes.)

9 CHAIRMAN WEISENMILLER: So Item 7 also passes
10 five to zero. Thank you. Let's go on to Number 8,
11 proposed adoption, New Solar Homes Partnership, Guidebook,
12 10th Edition.

13 MS. HUTCHISON: Good morning, Commissioners,
14 Commission staff, stakeholders and members of the public.
15 I'm Elizabeth Hutchison, the Program Lead for the New Solar
16 Homes Partnership, or NSHP Program. I'm joined by Michelle
17 Chester, Energy Commission Staff Counsel.

18 In this brief presentation I would like to
19 provide an overview of the updates included in the proposed
20 Tenth Edition of the NSHP Guidebook. As you may know, NSHP
21 launched in 2007 and provides financial incentives for the
22 installation of solar on new residential construction
23 located in the investor-owned utility territories.

24 Back in June of 2016 the CPUC issued a decision a
25 decision authorizing the continuation of the NSHP and

1 provides additional funding in the amount of \$111.78
2 million. This guidebook update reflects fairly substantial
3 changes that respond to the 2016 energy standards,
4 stakeholder feedback, affordable housing, improving program
5 participation and streamlining program processes. To
6 develop these changes, staff conducted several public
7 workshops to solicit feedback from industry experts and
8 stakeholders. Next slide.

9 At the start of this year, the 2016 building
10 energy efficiency standards went into effect. This
11 guidebook will include the eligibility requirements for new
12 residential structures built under this new Building Code
13 update.

14 I would like to note that this Building Code
15 cycle is unique in that it allows builders to take a
16 substantial PV credit to help with compliance, which is
17 fundamentally different from previous Code cycles. In
18 other words, builders can choose to install PV in order to
19 comply with the mandatory state Building Code.

20 As a result, this guidebook reflects a direction
21 in which incentives offered through NSHP are not used to
22 pay for compliance. Instead, NSHP will incentivize the
23 portion of the system installed above what is minimally
24 required by the state Building Code.

25 We have also proposed changes to our incentive

1 level structures. Historically, NSHP incentive levels were
2 divided into 10 steps and declined as megawatt targets were
3 achieved. Stakeholders stressed that the lower incentive
4 levels would not cover the verification costs associated
5 with our program, and thus, would not be worth applying for
6 incentives.

7 To address these concerns, both market rate
8 housing and affordable housing incentive level structures
9 will end at level 8, which is 50 cents per watt, and \$1.30
10 per watt, respectively. We are also making updates to our
11 incentive calculations.

12 The CEC PV Calculator will be discontinued and
13 all new projects will be required to use the Flexible
14 Installation Calculator. This new calculator produces a
15 more straightforward calculation of the incentive by
16 reducing the number of details that are needed.

17 Next slide. There has been a Commission-wide
18 effort to better reach disadvantaged communities with our
19 programs. As part of that effort, we have increased the
20 remaining incentive levels for affordable housing projects
21 to where the last level will be \$1.30 per watt instead of
22 80 cents per watt.

23 We will also offer a bonus of 20 percent of the
24 incentive, up to \$500 per unit, for affordable housing
25 projects located in disadvantaged communities. In

1 addition, we have removed the requirement for system owners
2 to have the tax exempt status, which sharply curtailed the
3 number of affordable housing projects qualifying for the
4 higher incentive rate due to the ownership structure of
5 these projects.

6 Additionally, certain common area projects will
7 be eligible to receive the affordable housing incentive
8 rate as we have heard from developers that common area
9 systems are equally beneficial for the residents and may be
10 their only option due to complex building design and tight
11 budgets.

12 Lastly, we have increased the amount of time
13 allowed to apply for the solar permit from 60 days to 120
14 days after the issuance of certificate of occupancy to
15 accommodate difficult project timelines for affordable
16 housing. We hope these changes will encourage new
17 participation beyond what our program has historically
18 seen.

19 Next slide. Next, this draft has incorporated
20 several streamlining processes, not only to ease the
21 application process but to increase program participation.
22 As we heard at a stakeholder workshop, the administrative
23 burden for program participants may counter some value of
24 the incentive.

25 So we are proposing programmatic changes to make

1 it easier to participate. We were able to do this through
2 removing redundancies and unnecessary processes, condensing
3 forms and creating the Established Installer designation to
4 ease the application process for high-volume applicants
5 with proven success in applying to our program.

6 Additionally, only systems installed with
7 azimuths between 90 and 280 degrees will be eligible for
8 incentives. This change supports streamlining field
9 verification requirements while also insuring NSHP
10 incentives go towards high-performing systems.

11 Next slide. If the Commission adopts the
12 proposed guidebook, the effective date will be today. A
13 demonstration of the new proposed FI Calculator was given
14 at our January Guidebook Workshop and will be posted and
15 ready for use with the adoption of this guidebook. An FI
16 Calculator manual, as well as example calculations, will
17 also be provided online.

18 NSHP staff has prepared for the online
19 application web tool to incorporate enhancements to address
20 changes made in this guidebook. Energy Commission staff
21 will review HERS Registry materials and databases to insure
22 that they are in compliance with the requirements in this
23 guidebook.

24 Next slide. Oh, that was the last slide. Sorry.
25 We realize this guidebook comes with extensive changes to

1 the eligibility requirements. The Energy Commission is
2 implementing a host of strategies to help make this a
3 smooth transition.

4 After the guidebook is adopted staff and the
5 Renewables Call Center will be available during business
6 hours to provide assistance. Staff will be providing
7 onsite training seminars to go over the changes in more
8 detail and have one-on-one time with applicants in
9 attendance.

10 There will be comprehensive help manuals
11 available on the GoSolarCalifornia website, as well as
12 guidance documents that detail how the changes will affect
13 each project. This guidebook has been a result of a long
14 public process.

15 I just want to elevate to the Commissioners and
16 the public that these are fairly substantial changes to the
17 program. But staff is confident that they are a pivot to
18 the program in a way that is practical, lessens the
19 administrative burden for both CEC staff and applicants,
20 and really responds to stakeholder needs.

21 In conclusion, I respectfully request your
22 approval of the resolution to adopt the proposed New Solar
23 Homes Partnership Guidebook, Tenth Edition, and I am happy
24 to answer any questions.

25 CHAIRMAN WEISENMILLER: Thank you. Let's take

1 public comment. Let's start with Bob Raymer.

2 MR. RAYMER: Thank you, Mr. Chairman and
3 Commissioners. Bob Raymer, with the Building Industry
4 Association, and we're in strong support of the approval of
5 today's item. We've worked very closely with staff and the
6 Commissioner and previous Commissioners over the years on
7 each of the updates to this document.

8 I think this makes the ninth edition, if I'm
9 correct. And I'd also like to take the time to thank
10 Commissioner Hochschild and his staff for providing us with
11 some very detailed statistics of the application of this
12 program. Over the last couple of years they've been in a
13 variety of venues, such as the Legislature, the Governor's
14 Office and the Public Utility Commission, where we've
15 needed almost overnight some very detailed information
16 regarding application of this in various districts
17 throughout the state.

18 And that means, you know, going to the micro
19 level and showing the success of this program means the
20 provision of jobs and everybody supports jobs who might not
21 normally support the program. And so that has been very
22 helpful over the years. Once again, thank you very much
23 and we support this item.

24 CHAIRMAN WEISENMILLER: Thank you. Thanks for
25 being here. Anyone else in the room? Let's go to George

1 Nesbitt on the line. He's gone. Okay. Anyone else on the
2 line? Okay. So let's transition over to the
3 Commissioners. Commissioner.

4 COMMISSIONER HOCHSCHILD: Thank you. And you'll
5 recall that the California Solar Initiative began 10 years
6 ago in 2007. This is really the last remaining element of
7 the entire CSI Program and one of the defining features of
8 that is that it was divvied up by Electric Utility Service
9 Territory, and also by construction sector.

10 So we are really the last remaining element of it
11 here. We really want to finish strong. The reason this
12 program is sort of slow to start had to do with the fact
13 that we went from making about 200,000 new homes a year in
14 the mid-2000s, down to 35,000 homes a year in 2009, right
15 when this was launching. And so it got a very slow uptake
16 for that reason.

17 We've been picking up momentum, have wind in the
18 sails, and this final reform we're doing is really to make
19 the process as friction-free as it can be, and on a strong
20 note leading up to our next Code cycle with Title 24. So I
21 really want to thank Bob and his colleagues at CBIA and all
22 the other stakeholders who've participated, and staff,
23 Elizabeth and your team, for doing a great job. I'm really
24 happy with how this has shaped up and I ask for your
25 support.

1 COMMISSIONER McALLISTER: Yeah. I just want to
2 jump on the point that, you know, this is really the glad
3 path, the long-term glad path of how the policy and the
4 state has kind of embraced the goals around solar and taken
5 a, you know, decade plus view of, you know, where we're
6 going to go.

7 And pushing that in a consistent way that gives
8 everybody some security about where we're going has been
9 key to making it all work. And so the new construction
10 market, as Commissioner Hochschild said, has been, you
11 know, it has a longer lead time.

12 It's a little bit bigger ship to turn than just
13 out there, you know, with existing buildings. But if we
14 step back and we look at this program and we -- and within
15 the context of solar, even solar on new construction, as we
16 include some solar in new construction and we add the NSHP,
17 you know, funded systems on top of that, you know, I'm
18 wanting to take a bigger look at, okay, how much solar is
19 actually going on to new construction overall, because I
20 think we're going to come pretty close to meeting our goals
21 overall.

22 And if we do that with less ratepayer money, then
23 you could really call that great policy. So as we move
24 over into, you know, some solar requirement and Code, you
25 know, let's look at the bigger picture and include all the

1 solar in that and I think we're going to be able to declare
2 success.

3 And you know, whether or not -- I mean,
4 obviously, hopefully, we get through all the program and
5 the NSHP, but there's a bigger message here that I think
6 demonstrates a lot of success and good policy.

7 COMMISSIONER HOCHSCHILD: One other point I'd
8 just make before we vote. So the U.S. Department of
9 Energy's taken over the annual solar job census. They're
10 using the same methodology as the Bureau of Labor
11 Statistics and they just released the data a few weeks ago.

12 We have over 100,000 solar jobs in the State of
13 California today, and that is not just a tribute to the
14 NSHP Program and the rest of the California Solar
15 Initiative, but going back to the early days under Chair
16 Phanstiel, the emerging renewables program and the seed
17 planting, and if you look at what we're doing today on EPIC
18 and on 118 and these other programs that are doing similar
19 seed planting, I think they can follow the same trajectory,
20 and just shows the importance of the longevity of these
21 programs and the capability to really take nation
22 industries and bring them to adulthood. And that's what I
23 think we've done. So with that I would move the item.

24 COMMISSIONER SCOTT: I just wanted to add one
25 more thing to that.

1 COMMISSIONER HOCHSCHILD: Oh, yeah. Go ahead.

2 COMMISSIONER SCOTT: Which is I got an excellent
3 briefing from the team. Thank you so very much for that.
4 And it sounds like there was just, again, a fantastic kind
5 of public process, really good outreach. Great job working
6 with the stakeholders and really listening to what's going
7 on to make sure that we put together what looks like an
8 excellent 10th update. And so I wanted to compliment the
9 team on the good work there, and I will second the item for
10 you.

11 CHAIRMAN WEISENMILLER: So all those in favor?

12 (Ayes.)

13 CHAIRMAN WEISENMILLER: This passes five to zero.
14 Thank you. Let's go on to Item number 9, which is City of
15 Santa Monica.

16 MS. NEUMANN: All right. Good morning,
17 Commissioners. My name is Ingrid Neumann, from the
18 Building Standards Office, and Christopher Meyer, Office
19 Manager, is here with me. Local governmental agencies are
20 required to apply to the Energy Commission for a finding
21 that the local energy standards are more stringent than the
22 adopted statewide energy standards found in Title 24, part
23 6.

24 Staff has reviewed the City of Santa Monica's
25 applications for local energy efficiency standards and has

1 found that both the applications for Part A and for Part B
2 were completed as of November 20th, 2016. They consist of,
3 one, the proposed local energy standards, two, a study with
4 supporting analysis showing how the local energy agency
5 determined energy savings and cost-effectiveness of the
6 local energy standard for each Part A and Part B, three, a
7 statement that the local standards will require buildings
8 to be designed to consume no more energy than permitted by
9 Title 24, Part 6, and four, a California Environmental
10 Quality Act Assessment.

11 On October 25th, of 2016, the City of Santa
12 Monica City Council approved the first reading of the
13 amendments to the Energy Code in Ordinance sections
14 4.202.345, and 5.201.34, for Part A, and sections 8.36.020
15 and 8.36.030 for Part B.

16 The cost-effectiveness studies for both parts
17 were also heard and approved by the City Council on this
18 date. The City of Santa Monica will schedule a second
19 reading to finalize the adoption of the proposed local
20 energy standards once they're approved by the Energy
21 Commission.

22 So for Part A of this item the city modified the
23 Santa Monica Municipal Code as follows. One, for new pool
24 construction in all occupancies, renewable energy must be
25 used for heating, two, all new one and two-family dwellings

1 shall install a PV system with a minimum total wattage one
2 and a half times the square footage of the dwelling, or
3 install a solar PV system or other renewable energy system
4 that will offset 75 to 100 percent of the time-dependent
5 valuation energy budget or equivalent.

6 Three, all new low-rise residential, multi-family
7 dwellings, so that's more than two families, and all new
8 non-residential, high-rise residential hotel and motel
9 structures are required to install a solar electric
10 photovoltaic system with a minimum total wattage of two
11 times the square footage of the building.

12 The requirements of each of the above sections
13 shall be waived or reduced by the minimum extent necessary
14 in situations where production of electric energy from
15 solar panels is technically unfeasible due to a lack of
16 available unshaded areas.

17 The local requirement is identical to that which
18 was in place for the 2013 standards. Adoption of a solar
19 PV installation requirement for newly constructed buildings
20 will insure that less energy will be consumed by buildings
21 complying with the new ordinance than would be used by
22 dwellings comply with the 2016 energy standards.

23 The solar PV will provide a portion of the energy
24 otherwise obtained from the grid, on site, from renewable
25 resources. The proposed energy provisions do not otherwise

1 modify any of the requirements in Title 24, Part 6. This
2 insures that the modifications to the energy provisions
3 proposed by the city will require buildings to be designed
4 to consume no more energy than permitted by the 2016 Energy
5 Code.

6 One public comment was received by the Energy
7 Commission during the 60-day comment period which ended
8 February 17th of this year. It addressed the concerns of
9 the Los Angeles, Ventura County Chapter of the Building
10 Industry Association, that the cost-effectiveness study
11 lacked detail and sufficient data.

12 The Eco Motion Study submitted by the city builds
13 on the draft Energy Commission PV Study prepared by E3 in
14 2013, which was further analyzed by the City of Santa
15 Monica in 2015 in support of their local PV ordinance in
16 place under the 2013 standards.

17 The general idea of the Eco Motion Study is that
18 if a conservative level of PV was cost-effective then the
19 factors affecting cost have either not changed or become
20 more favorable, and thus, that same level of PV is still
21 cost-effective now.

22 Staff found the application to be complete and
23 confirmed a reduction of energy consumption required by the
24 local ordinance. Staff therefore recommends the findings
25 be approved and the Energy Commission resolution be signed.

1 I'm available to answer any questions you may have.

2 Joel Cesare, Sustainability Building Adviser, and
3 -- sorry -- Sustainable Building Adviser, and Ron
4 Tagiguchi, Chief Building Official of the City, are also
5 available to answer questions and to provide comment.
6 Thank you.

7 CHAIRMAN WEISENMILLER: So let's start with
8 public comment. Yeah, actually, let's start with the city
9 first, please.

10 MR. TAGIGUCHI: Dr. Weisenmiller, Commissioners,
11 good morning. Ron Tagiguchi, City Building Official for
12 Santa Monica. And first of all, I'd like to thank
13 Executive Director Oglesby and his staff for the report and
14 the correspondence with the City of Santa Monica.

15 What we'd like to provide is that in the
16 development of this proposal was not only goal-setting, but
17 also practical and certainly cost-effective. But the most
18 important thing about this implementation is that itself
19 that is implementable [sic], and that in implementing this
20 the -- both staff and the community are engaged.

21 And the goals of this increased energy are
22 certainly achievable, and we do that with continued
23 outreach to the community, training for staff. And I would
24 just like to add that regionally this higher energy effort
25 is looked upon by neighboring cities, and the City of Santa

1 Monica gets a lot of inquiries in how we achieve, you know,
2 such a high level of increased energy efficiency.

3 And overall, we believe that that not only sets
4 the goals consistent with the Energy Commission, but
5 certainly, those of our community and regionally. So with
6 that for this Part A, we do thank the Commission for the
7 consideration and do wish for your approval on the
8 resolution.

9 CHAIRMAN WEISENMILLER: Thank you. Bob Raymer.

10 MR. RAYMER: Thank you, Mr. Chairman,
11 Commissioners. Bob Raymer with the Building Industry
12 Association. And normally, CBI doesn't comment on the
13 issue of local modifications to the State Code,
14 particularly the reg. codes relating to energy.

15 On a positive note, over the years the adoption
16 of these local reg. codes has served as a sort of an
17 educational and research tool that can provide very useful
18 information as we go about updating the state's building
19 standards. And that's certainly been the case for not only
20 energy, but for water conservation measures.

21 However, I'd like to state, at least for the
22 record, that the proposal from Santa Monica has a few key
23 elements that sort of differ from previous reg. codes in
24 that it seeks to put into place a full zero net energy
25 ordinance, which differs substantially from a similar solar

1 ordinance that's being considered by the City of Lancaster.

2 And while CBI is well aware of the Commission's
3 somewhat limited authority here when it comes to processing
4 of these local ordinances, we would like to state for the
5 record that we do take exception to several of the economic
6 assumptions that are being used by Santa Monica in the
7 cost-effectiveness analysis.

8 Most notably, the City of Santa Monica is
9 assuming that the federal tax income tax credit will be
10 available for years to come. And while we would agree and
11 would probably make the same assumption last summer, we can
12 no longer make that assumption, and it's probably not an
13 assumption that is going to be embraced by the CEC staff
14 anymore as they perform their cost-effective analysis on
15 the state standards being considered for 2020.

16 And I want to make sure it's clear. We're not
17 saying that solar's not cost-effective. It is. And given
18 some of the preliminary staff development of the standards
19 for 2020, a certain amount of solar is cost-effective in
20 all 16 climate zones.

21 What we're saying here is in this particular case
22 with an energy design rating equal to zero that we may see
23 a case where a lot of solar, at least for the short term,
24 is not cost-effective. There are also a half dozen
25 technical issues that were used by the City of Santa Monica

1 which differ from those that will be used at the state
2 level, all of which have the effect of helping to show the
3 ordinance will be cost-effective, at least on paper.

4 Our concern is in reality will this actually work
5 out, and we have some doubts. And last, we still have a
6 concern that installing a PV system on a roof which is
7 sized to offset more than the estimated electrical load of
8 the home could prompt Edison, in this particular case, to
9 not connect the house to the grid.

10 We're hoping that isn't the case. We have
11 encountered a few instances where Edison has said no,
12 you've over-sized the system. You need to take off a few
13 kilowatts. And so with that, we don't have a position on
14 this. We understand that the fact is they have submitted a
15 full packet for the Energy Commission to consider.

16 And so with that we'll continue to work with
17 Santa Monica. Ron didn't mention it, but he happens to be
18 the president of CALBO and we have a fantastic working
19 relationship, and we look forward to working with him in
20 the future. So thank you.

21 CHAIRMAN WEISENMILLER: Thank you. Any comments
22 from anyone on the line. Okay. So again, Commissioners,
23 at this point we're taking questions on 9A, then we'll go
24 to B and then we'll vote on the combined A and B. So any
25 questions on 9A or comments?

1 COMMISSIONER HOCHSCHILD: Well, so more general
2 discussion which is do -- you want to approve them one by
3 one?

4 CHAIRMAN WEISENMILLER: No. We're going to vote
5 on them as a package, but just --

6 COMMISSIONER HOCHSCHILD: And you're going to
7 talk about them for a minute. Okay.

8 CHAIRMAN WEISENMILLER: -- if you have any
9 questions on Item 9A. Okay.

10 (Unrelated colloquy)

11 CHAIRMAN WEISENMILLER: Okay. All right. That's
12 good. So let's go on to staff presentation on 9B.

13 MS. NEUMANN: All right. As part B of this item,
14 the city modified the Santa Monica Municipal Code to
15 require the following. Energy efficiency for low-rise
16 residential should include, all new low-rise residential
17 buildings shall be designed to use 15 percent less energy
18 than the allowed energy budget established by the 2016
19 California Energy Code, and for one and two-family
20 dwellings, achieve an energy design rating or EDR of zero.

21 Then the energy efficiency for high-rise
22 residential, non-residential, hotels and motels shall be
23 designed to use 10 percent less energy than the allowed
24 energy budget established by the 2016 California Energy
25 Code.

1 It should be noted that the PV compliance credit
2 is not given in climate zone six, and thus, the amount of
3 energy required by all types of new occupancies will be
4 directly reduced by the amounts indicated above. The
5 additional requirement of meeting a zero EDR for low-rise
6 residential, one and two-family occupancies does
7 necessitate on-site generation after making the 15 percent
8 efficiency improvements in order to reach the zero net
9 energy or ZNE designation.

10 This includes displacing the natural gas load.
11 One public comment was received by the Energy Commission
12 during the 60-day comment period, which ended February
13 17th. This is the comment by the Los Angeles, Ventura
14 County Chapter of the Building Industry Association that
15 mostly addressed the Eco Motion Study used for Part A, but
16 they also extend the discussion to ZNE and reaching an EDR
17 of zero.

18 So as such, it was unclear if it was also
19 intended as a comment for this portion. The TRC Study used
20 by the City of Santa Monica in support of Part B was not
21 directly addressed. As I mentioned, for Part B the City of
22 Santa Monica worked closely with TRC Energy Associates to
23 develop the cost-effectiveness study that was submitted by
24 the city's complete -- submitted with the city's completed
25 application.

1 The Energy Commission itself is held to a very
2 stringent requirement of showing consumer cost-
3 effectiveness for all measures adopted into the statewide
4 energy standards. Local jurisdictions may have more
5 latitude for determining cost-effectiveness such as using
6 less conservative assumptions or including unique benefits
7 that apply locally.

8 The City of Santa Monica found the utility cost
9 savings were \$2.87 per watt, which is below the extreme
10 cost to install, estimated at \$2.96 per watt, including the
11 New Solar Homes Partnership, or NSHP, and the federal tax
12 incentives.

13 As the city noted in their application, this does
14 not provide a direct savings to the consumer, but they
15 evaluated, the site generated electricity on a societal
16 level. The City of Santa Monica found that an EDR of zero
17 was cost-effective with a benefit to cost ratio of 2.1,
18 using a societal savings model.

19 Santa Monica found a benefit of \$6.67 per watt,
20 using 2016 TDV values for the generated electricity. That
21 is, the analysis assumed that the total benefits of
22 generating one watt of electricity via on-site solar PV is
23 directly equivalent to the total cost of generating and
24 shipping one watt of electricity via the grid.

25 This may or may not be possibly [sic] locally,

1 depending on the current and planned electric grid
2 infrastructure, and differs from using TDV to quantify
3 costs of generation that vary over time and assess the
4 impacts of avoided generation resulting from direct
5 reductions in consumption.

6 Staff found the application to be complete and
7 confirmed a reduction of energy consumption required by the
8 local ordinance. Staff therefore, recommends the findings
9 to be approved and the Energy Commission resolution to be
10 signed. I am available to answer any questions you may
11 have, as are Joel Cesar, Sustainable Building Adviser, and
12 Ron Tagiguchi, Chief Building Official of the City. Thank
13 you.

14 CHAIRMAN WEISENMILLER: Thank you. City of Santa
15 Monica, any?

16 MR. CESARE: Thank you, Commissioner. My name's
17 Joel Cesare. I'm the Sustainable Building Advisor with the
18 Office of Sustainability in the Environment for the City of
19 Santa Monica. And I just want to reiterate what Ron said,
20 that we greatly value the opportunity that the Commission
21 provides for cities like Santa Monica to meet its local
22 needs through advance energy conservation.

23 So we're grateful for this opportunity and we
24 thank the Commission for its leadership. And secondly,
25 reiterate again what Ron said related to our outreach into

1 the community. It's my specific job in the Office of
2 Sustainability to collaborate with our stakeholders at all
3 levels of the city government, so elected officials,
4 business leaders and our local residents, to make sure that
5 the implementation of ordinances like this is done as
6 smoothly and effectively as possible.

7 So we will continue the already robust outreach
8 effort we've been conducting with meetings and
9 presentations and workshops with various groups and
10 organizations affiliated with the building and construction
11 and design, and moving forward we'll continue to do
12 additional outreach workshops and work with the local IOUs,
13 including SCE, So Cal Edison, to make sure our website and
14 their website and as many online resources as possible from
15 the city have very detailed and specific information that's
16 easy to understand and digest so that this ordinance can be
17 put forward and implemented so that our community can
18 continue to build beautiful homes in Santa Monica and be
19 proud of the work we do. Thank you.

20 CHAIRMAN WEISENMILLER: Thank you. Bob, anything
21 else, Bob Raymer?

22 MR. RAYMER: Thank you, Mr. Chairman and
23 Commissioners. Once again, Bob Raymer, with CBIA, and I
24 would like to just speak in general terms. And I certainly
25 understand the benefits that the City of Santa Monica is

1 seeking here, but stepping back and looking at this from
2 the 30,000-foot level, I just wanted to make you aware that
3 in addition to the positive aspects of this, we're trying
4 our best to get industry to move towards the 2020
5 standards.

6 The staff that you have here has been doing a
7 good job of keeping us engaged, and we're already very
8 aware of what those standards are going to look like.
9 Right now, our big job is to try to get the 2016 standards
10 implemented, and that involves doing the high performance
11 attics, the advanced wall systems and mostly likely a solar
12 offset if it's too early to do walls and attics.

13 That's a huge lift for industry to do in a short
14 period of time. Plus, when we get to 2020 we're not
15 effectively going to be doing all of those plus a little
16 more. And so it's trying to get sort of a square peg into
17 a round hole that we're seeing happen here.

18 Trying to do too much in a very short period of
19 time has never worked out well for us. And so we're going
20 to continue to work with the CEC staff. We've got a very
21 positive relationship with them and we look forward to
22 keeping that going. So this is just -- it's tough to
23 swallow for the short term. So with that, thank you.

24 CHAIRMAN WEISENMILLER: Thanks for being here.
25 We certainly appreciate the partnership we've had with CBIA

1 on these issues. Anyone else in the room or on the phone.

2 So let's transition to Commissioners. Mr. McAllister.

3 COMMISSIONER McALLISTER: All right. Thanks. So
4 I've been very involved in this over the last number of
5 months and been keeping in touch with what staff is doing,
6 and certainly with all the good work that's happening in
7 Santa Monica.

8 And I want to just thank Santa Monica for your
9 leadership here, and you know, we do depend on local
10 governments. You guys are the laboratories and really show
11 what's possible. And so I want to congratulate you and
12 thank you for all the great work and innovation.

13 You know, we live in a big, diverse state. And
14 so our challenge at the Commission is to find a balance
15 with the building standards that do cover the whole state.
16 We have a lot of climate zones, a lot of, you know,
17 economic and demographic differences across the state, and
18 you know, lots of different local governments, all of them
19 under pressure to meet their climate goals and develop
20 climate plans for sure, but also have different pathways to
21 do that and different tools that they have in their
22 toolboxes.

23 So I also wanted to thank So Cal Edison, SCE, for
24 their support to Santa Monica in this process. You know, I
25 think helping local governments is something that Edison

1 has done, done well, and we all learn a lot from that. So
2 those resources are very much appreciated.

3 Let's see. I guess the difference, and I think I
4 just want to put a little bit finer point on it. So Ingrid
5 made this point, that the differences, essentially the
6 evaluation of generation, you know. We're getting the
7 consumption down, Part A, absolutely.

8 The energy efficiency merits are there. Our
9 analysis shows that very clearly. And the choice that
10 Santa Monica made to value all of the generation from a PV
11 system at sort of a societal value, you know, is -- or at a
12 high value, a relatively high value, rather, you know, I
13 think is consistent with essentially assigning a social
14 cost, a societal cost of carbon, essentially.

15 And you know, our analysis is somewhat different
16 and constrained by statute in terms of how we work through
17 the Building Standards Update using TDV and on an hourly
18 basis, you know, looking at the generation and the
19 consumption.

20 So you know, the CEC definitely supports adoption
21 of local ordinances with the triennial updates to the Green
22 Building Standards. So CALGreen is a key tool that local
23 governments look to and very much ought to look to, as well
24 as appropriate updates to the compliance software
25 referenced in Title 24, Part 6 and Part 11.

1 So let's see. You know, and I think you've done
2 this, but I just want to make the point that when local
3 governments do their analyses it's helpful for all of us to
4 compare and contrast sort of the context that you're
5 applying and the analysis that you're doing with TRC, your
6 consultant, or internally with what we do as the state.

7 And so you know, we have to find that balance and
8 you -- I think we're really looking forward to seeing how
9 things move forward and certainly working through with the
10 builders in that area and sort of seeing what challenges,
11 if any, they face, learning from that to see how we can
12 incorporate your lessons into the statewide code.

13 So you know, first cost, constructability and
14 consumer bill savings, we certainly have to look at, at the
15 state level, as well as the environmental issues, you know,
16 across multiple and diverse climate regions. We have to
17 look at all that.

18 And we I think have to have at the top of the
19 list the affordability for the widest range of consumers.
20 You know, we live in a big state with 40 million people and
21 there are lots of people who have challenges living here.
22 So let's see.

23 I guess I would just wrap up by saying, you know,
24 I think this is the first -- Santa Monica is out there
25 leading and I really, really appreciate that and I want to

1 keep in touch and see how it goes as you implement, and
2 want to congratulate you on that again.

3 I think you certainly won't be the last to adopt
4 such an ordinance, and as we move forward I think, you
5 know, we need to be very explicit about what sort of our
6 approach at the state level and what the -- you know -- the
7 code updates, the Building Standards Updates, the triennial
8 standards updates can and can't do, and keep in mind, that.

9 And then also, you know, sort of shoot for
10 learning as much as we can from you're doing at the local
11 level. So I really appreciate, again, all the effort. And
12 you know, we're going to learn a lot and hopefully be able
13 to push the cost-effectiveness threshold further each year.

14 I mean, we've seen that with solar, lots of new
15 efficiency technologies, and I think we're going to see
16 some creativity coming out of what you've done that we can
17 then turn around to apply more broadly and justify cost-
18 effectiveness in other places, you know, not just climate
19 zone six, but across the state.

20 So anyway, I want to thank staff for all the hard
21 work on this, and I support both of these. I do. You
22 know, there are a lot of moving parts to this. You know,
23 as Mr. Raymer said, you know, there's a real market out
24 there that's building buildings all over the place.

25 And so you know, as we learn from you and other

1 local jurisdictions, Lancaster and others, we're going to
2 make sure that our process incorporates the best of that,
3 you know, within our statutory constraints as we update the
4 -- do the 2019 and then beyond. So I guess that's it for
5 now, unless there's a little bit more discussion.

6 COMMISSIONER HOCHSCHILD: Thank you. Yeah. So
7 just a question for the gentleman from Santa Monica. Thank
8 you for being here and for Santa Monica's long-time
9 leadership as a clean energy and green city. We now have
10 10 cities or just over 10, I think, that have gone ahead of
11 State Code on energy efficiency, or I think you'll be the
12 fifth that's done some form of a solar mandate.

13 And as I travel around the state and engage with
14 publicly-owned utilities and other city leaders one of the
15 things that, when they ask of me, what's the best way to do
16 something like that, I always challenge folks to do more on
17 electric vehicles, because to integrate all these rooftop
18 renewables, EVs really will play a central role in that.

19 And there's, you know, a suite of options from
20 what is happening here. In SMUD territory starting this
21 month, when you buy an electric vehicle you get two years
22 of free electricity, to what San Francisco is doing with
23 mandated procurement of EVs for the city fleets.

24 And I'm just curious if you could share with us
25 your thoughts or potential actions around promoting EVs in

1 Santa Monica, because these SILO's we've had at the Energy
2 Commission of, you know, transportation and renewable
3 generation are increasingly becoming integrated, because
4 these things fit together and it's actually necessary to
5 continue to reduce as we become a lower and lower carbon
6 grid to have EV capability help meet that intermittent
7 renewable generation. So I'm just curious if you could
8 share your thoughts on that question.

9 MR. TAGIGUCHI: Yes, thank you, Commissioner, for
10 bringing that up. I'd like to also say that Santa Monica,
11 with the 2013 California Building Code was one of the first
12 to implement a electric vehicle requirement, not just for
13 conduit and parking spaces.

14 That's more along the lines of a planning issue.
15 We did it from the standpoint of the building, technical
16 issue. So one of the Santa Monica firsts was to require
17 calculations for consideration of electric vehicle
18 infrastructure.

19 So as part of electric load calculations for a
20 new building we also required a certain amount for
21 consideration for electric vehicle, be that level two or
22 level three. And we started off in 2013 by requiring that
23 for residential buildings, and recently with the 2016
24 Building Code, we now incorporated it for new commercial
25 buildings.

1 Now, that wasn't before the Energy Commission
2 because we submitted that as a building standard. So that
3 went before the Building Standards Commission, but we have
4 received a lot of inquiries from neighboring cities and how
5 that has worked, and I would say that that has worked very
6 well.

7 In anticipation of the great number of electric
8 vehicles in Santa Monica, the infrastructure consideration
9 the onset when the building is built has reaped many
10 benefits because it allows building owners to simply
11 install their electric vehicle charging equipment without
12 having to affect the electrical service or the
13 infrastructure.

14 So we are looking at that further, perhaps with
15 existing buildings, because many of our residents in Santa
16 Monica are living in older existing apartment buildings.
17 We will look at the technicalities of that and how that
18 could be incorporated.

19 COMMISSIONER HOCHSCHILD: Great. Thank you for
20 that. And again, we do look to, you know, cities to
21 pioneer new models and I want to encourage you in that
22 regard. So thanks for your leadership.

23 COMMISSIONER McALLISTER: So I want to actually
24 ask, as well. So do you have -- are you doing any other
25 demand response type of requirements or initiatives within

1 your buildings? I mean, you know, part of the under --
2 part of the story here, the bigger story, is that buildings
3 really need to become -- you know -- they need to learn how
4 to behave on the grid and, you know, be a resource as well
5 as a load, right.

6 And so we do that with generation, but we also do
7 that with other technologies and demand response
8 capability. You almost, you know, buildings are going to
9 have to sort of have a governor just like a power plant
10 might, you know, and sort of be able to respond in real
11 time.

12 So I wonder if you're, you know, working on any
13 of those issues in either a Building Code or voluntary
14 programs or anything of that nature?

15 MR. TAGIGUCHI: Certainly, the demand response
16 that the Energy Commission has incorporated in their 2013
17 standards, just like Mr. Raymer mentioned, you know, that
18 was certainly groundbreaking new. I have to say that even
19 as progressive as Santa Monica is, we're still trying to
20 wrap our hands around that, the demand response.

21 But it's something that we could see that load
22 monitoring certainly is a way that, certainly on the high
23 energy demand days would be a benefit. So we will further
24 look at that. Probably since this is new to, you know,
25 many in the state, we'd be happy to work with CEC staff on

1 that.

2 COMMISSIONER McALLISTER: Great. Thanks a lot.
3 Thanks again for being here. Is there anybody else? Okay.
4 We'll move Item 9.

5 COMMISSIONER HOCHSCHILD: Second.

6 COMMISSIONER McALLISTER: A and B.

7 CHAIRMAN WEISENMILLER: All those in favor?

8 (Ayes.)

9 CHAIRMAN WEISENMILLER: Item 9A and B passes,
10 five to zero. Thank you.

11 MR. TAGIGUCHI: Thank you very much.

12 CHAIRMAN WEISENMILLER: Thanks for being here.
13 Let's go onto Item Number 10.

14 MS. NEUMANN: All right. Good morning again.
15 I'm still Ingrid Neumann, and Christopher Meyer from
16 Building Standards Office, right? On November 15th of
17 2016, the Marin County Board of Supervisors approved the
18 amendments to the Energy Code and Ordinance 3658, section
19 19.04.14H and the accompanying green building requirements
20 fact sheet.

21 The cost-effectiveness study was also heard and
22 approved on this date. Local governmental agencies are
23 required to apply to the Energy Commission for a finding
24 that the local energy standards are more stringent than the
25 adopted statewide energy standards found in Title 24, Part

1 6.

2 Staff has reviewed Marin's County [sic]
3 application for their local energy efficiency standards and
4 has found that the application was complete as of January
5 6th of this year. It consists of, one, the proposed local
6 energy standards, a study with supporting analysis showing
7 how the local agency determined energy savings and cost-
8 effectiveness of the local energy standards and three, a
9 statement that the local standards will require buildings
10 to be designed to consume no more energy than permitted by
11 Title 24, Part 6, and lastly, number four, a California
12 Environmental Quality Act assessment.

13 No public comments have been received by the
14 Energy Commission during the 60-day comment period, which
15 ended on March 6th of this year. As part of this ordinance
16 Marin County will require, first, new single and two-family
17 residential construction projects to satisfy the
18 corresponding GreenPoint Rated checklist, GreenPoint Rated
19 new home.

20 Second, all single and two-family residential
21 additions and remodels to satisfy the corresponding
22 GreenPoint Rated checklist, GreenPoint Rated existing home
23 elements, and three, last, all new multi-family
24 construction will satisfy the corresponding GreenPoint
25 Rated checklist, GreenPoint Rated multi-family.

1 For each situation this corresponds to a
2 compliance margin of 10 percent more efficient than the
3 2016 standards. The use of photovoltaics to meet
4 compliance is explicitly prohibited in the GreenPoint Rated
5 system. Marin County adopted the Cal Green Cost-
6 Effectiveness Study developed by the Davis Energy Group and
7 others, on behalf of Pacific Gas and Electric and submitted
8 it with their completed application.

9 This study found Cal Green Tier One Measures
10 requiring a compliance margin of 15 percent more efficient
11 than the 2016 standards to be cost-effective in climate
12 zones two and three. Consequently, measures leading to a
13 10 percent compliance margin, which are those proposed by
14 Marin County, would also be found to be cost-effective.

15 Staff found the application to be complete and
16 confirmed a reduction of energy consumption required by the
17 local ordinance. Staff therefore recommends that the
18 findings be approved and the Energy Commission resolution
19 be signed. I'm available to answer any questions you may
20 have. Thank you.

21 CHAIRMAN WEISENMILLER: Thank you. Any comments
22 from anyone in the room or on the phone? Let's go to the
23 Commissioners.

24 COMMISSIONER McALLISTER: Yeah. This is I think
25 more straightforward than the last item. So probably we

1 don't need as much discussion, but it's good to see, you
2 know, different jurisdictions deciding what works for them.
3 GreenPoint Rated is a good system and it meets our needs in
4 terms of having buildings being built that use less energy
5 than the Code requires. So this is a good item, and
6 congratulations again, Marin County. They're not here
7 today, are they?

8 MS. NEUMANN: I don't believe so.

9 COMMISSIONER McALLISTER: Right. Okay. Great.
10 Anyway, another great case of leadership. That's all.
11 I'll move Item 10.

12 COMMISSIONER SCOTT: Second.

13 CHAIRMAN WEISENMILLER: All those in favor.

14 (Ayes.)

15 CHAIRMAN WEISENMILLER: Item 10 also passes five
16 to zero. Thank you. Let's go to Item 11.

17 MR. PINEDA: Good morning, Chair Weisenmiller and
18 Commissioners. My name is Alex Pineda, and I'm a
19 Mechanical Engineer in the Appliances and Outreach and
20 Education Office in the Efficiency Division. I am here
21 today to seek your approval of Item 11, which is a Proposed
22 Resolution Approving Agreement 400-16-002, with the Regents
23 of the University of California, on behalf of the Davis
24 Campus' Western Cooling Efficiency Center for \$500,000.

25 Currently, we have an agreement with the Western

1 Cooling Efficiency Center to create training course videos
2 on the residential heating, ventilation and air-
3 conditioning or HVAC requirements in the 2016 Building
4 Energy Efficiency Standards.

5 These videos are uploaded to the Energy
6 Commission's Online Resource Center and will be used by
7 local enforcement agencies to gain training and insight on
8 compliance with these parts of the energy standards. This
9 new agreement will complete the portfolio of available HVAC
10 and covered processes videos for the 2016 energy standards,
11 which will then be uploaded to the Online Resource Center.
12 I ask your approval of Item 11 and I'm here to answer any
13 questions.

14 CHAIRMAN WEISENMILLER: Thank you. First, any
15 comments from anyone in the room or on the phone? Okay.
16 Let's transition to Commissioners.

17 COMMISSIONER McALLISTER: I'm in full support,
18 obviously, of this item. You know, we need these resources
19 to get the job done properly. So I'll move the item.
20 Anybody -- no one else has comments? Okay.

21 COMMISSIONER SCOTT: Second.

22 COMMISSIONER McALLISTER: Move item --

23 CHAIRMAN WEISENMILLER: All those in favor?

24 (Ayes.)

25 CHAIRMAN WEISENMILLER: This passes five to zero.

1 Let's go on to Item 12. Thank you.

2 COMMISSIONER McALLISTER: Thanks very much.

3 MS. DUSHENKO: Hello. My name is Galina
4 Dushenko, and I'm a Commission Agreement Manager with the
5 Appliances Unit in the Efficiency Division. I'm here to
6 request approval of a \$100,000 contract with the Regents of
7 UC Davis Campus's California Lighting Technology Center.

8 The purpose of this contract is to increase
9 consumer and industry awareness of the forthcoming changes
10 to the lighting portion of the Title 20 Appliance
11 Efficiency Regulations that will go into effect in 2018 in
12 California and 2020 nationwide.

13 In specific, the primary goal of this contract is
14 to help consumers, including those that are low income and
15 disadvantaged transition from incandescent to LED lighting.
16 The secondary goal of the contract is to increase industry
17 awareness of these Title 20 lighting changes with outreach
18 materials and events. I ask for approval of this item and
19 I'm happy to answer any questions.

20 CHAIRMAN WEISENMILLER: Thank you. Any comments
21 from anyone in the room or on the phone? Okay. Let's
22 transition to Commissioners.

23 COMMISSIONER McALLISTER: Yeah. So the previous
24 item in Title 24 and this item in Title 20, you know, this
25 just -- they're both expressions of the fact that our

1 outreach is critically important. So thanks for bringing
2 this item to us.

3 In particular, on lighting, you know, there are
4 epic changes going on in the marketplace and there are
5 requirements coming down from the Federal Government.
6 There are Title 20. We've adopted recent regulations on
7 LEDs. We have the quality spec.

8 We have a lot of interaction with the
9 marketplace, you know, via regs and just via, you know, our
10 obligation and desire to make sure the marketplace knows
11 what's coming. And so this is really critical, I think, to
12 make sure that, you know, it's not just about our regs,
13 Title 20.

14 It's about making sure that, you know, up and
15 down the marketplace and across the state people know what
16 lighting changes are coming in the marketplace. So this is
17 I think a really key item, and obviously, the CLTC is
18 capable of doing this. So I support this item, and if
19 there's no other comments I'll move Item 13 [sic].

20 COMMISSIONER SCOTT: Second.

21 CHAIRMAN WEISENMILLER: All those in favor.

22 COMMISSIONER McALLISTER: Oh, I'm sorry. I'm
23 sorry. I'm sorry. Moving Item 12.

24 CHAIRMAN WEISENMILLER: Okay.

25 COMMISSIONER SCOTT: Second.

1 CHAIRMAN WEISENMILLER: Okay. All those in favor
2 on Item 12?

3 (Ayes.)

4 CHAIRMAN WEISENMILLER: Item 12 passes five to
5 zero. Thank you. Let's go on to 13.

6 MR. OWNBY: Almost got my item approved without -
7 -

8 COMMISSIONER McALLISTER: Yeah. Sorry about
9 that, Adrian.

10 COMMISSIONER McALLISTER: Ah, so close. Good
11 morning, Commissioners. My name is Adrian Ownby. I'm with
12 Building Office in the Efficiency Division. I'm here today
13 to present this proposal for an Interagency Agreement with
14 UC Davis to access the lighting technology expertise
15 available through the California Lighting Technology
16 Center.

17 This Interagency Agreement will use approximately
18 343,000 in funding to provide support for the development
19 and implementation of the 2019 and 2022 Building Energy
20 Efficiency Lighting Standards. Specific tasks include
21 research and analysis and providing recommendations on high
22 efficacy lighting sources, horticultural lighting,
23 healthcare lighting and occupancy sensing controls for
24 specific lighting alterations.

25 This Interagency Agreement will supplement

1 existing work on other areas of the standards and is
2 intended to expand the scope of the 2019 and 2022
3 standards. I'd like to wrap up by reiterating our request
4 for approval, and I welcome any questions you might have.

5 CHAIRMAN WEISENMILLER: Thank you. First, any
6 comments from anyone in the room or on the phone? Okay.
7 So let's transition over to Commissioners.

8 COMMISSIONER McALLISTER: Yeah. So again, CLTC.
9 And again, this technical support is really critical for
10 our work and we rely on that to answer specific technical
11 questions just to underpin our work generally on the
12 lighting front. So I'm supportive of this item.

13 COMMISSIONER HOCHSCHILD: Okay. Are you moving
14 the item or --

15 COMMISSIONER McALLISTER: I'll move Item 13.

16 COMMISSIONER HOCHSCHILD: Second.

17 CHAIRMAN WEISENMILLER: All those in favor?

18 (Ayes.)

19 CHAIRMAN WEISENMILLER: So Item 13 passes five to
20 zero. Let's go on to Item 14.

21 MR. PRATT: Hello Chair and Commissioners. I'm
22 Kiel Pratt from the Energy Systems Research Office. For
23 this item, first I wish to make a small clarification on
24 the backup material. The final documents were processed,
25 including a subcontractor called Tech Flow, Incorporated.

1 However, an older version of the Contract
2 Amendment Request Form has been posted and I wish to
3 clarify that a subcontractor name is Archetype USA, LLC,
4 but Tech Flow, Incorporated. Only the name had been
5 updated. This amendment would change the demonstration
6 site to Marine Core Air Station Miramar in Dan Diego,
7 extend the term by 36 months to provide for a minimum of
8 two years for data collection and analysis and add slightly
9 over \$690,000 of ARFVTP funding, bringing the project total
10 to slightly under \$3 million.

11 The current demonstration sites, Moffett Field
12 and Camp Parks, experienced military mission problems
13 because many of the demonstration vehicles had to perform
14 missions off base for long durations, resulting in problems
15 with range limitation.

16 The length of time off base frequently prevented
17 these vehicles from being available for grid services. In
18 contrast, as Marine Corps Air Station Miramar vehicles will
19 have missions that require them to operate on the base,
20 making them available at their charging stations more often
21 to provide grid services.

22 Relocating this project will result in improved
23 military mission support and a better research environment.
24 The project will demonstrate the value of transitioning a
25 fleet of fossil fuel vehicles to a fleet of plug-in

1 electric vehicles.

2 Specifically, it will showcase the ability of
3 electric vehicles to carry out military base missions while
4 providing vehicle to grid services to the base's electrical
5 infrastructure when available at their charging stations.
6 The project will be an integral part of the new micro grid
7 that the marines are installing at Miramar, funded by an
8 investment of over \$20 million by the Department of Defense
9 as part of an initiative to demonstrate increased energy
10 resilience at critical national defense facilities.

11 As a result of this DOD funded micro grid we will
12 also be able to include over 20 electric vehicles being
13 funded by the marines in this research that allows us to
14 better understand not only how to use V2G, but also how to
15 incorporate electric vehicle smart charging into the grid
16 management of the micro grid.

17 This information will not only be useful to the
18 military, but much of this information will be relevant to
19 other commercial fleets such as Fed-Ex, UPS, the post
20 office and others. Staff recommends approval of this item.
21 I'm available for any questions, as are Mike Gravely and
22 two callers from Marine Corps Air Station Miramar, Mick
23 Wasco, the Installation Energy Manager and Captain Bill
24 Whitmire, Assistant Chief of Staff Facilities for Marine
25 Corps Installations West. Thank you.

1 CHAIRMAN WEISENMILLER: Great. So let's start
2 first, does anyone -- well, comments of anyone in the room.
3 Okay. So let's go on the line to Captain Whitmire, please.

4 CAPTAIN WHITMIRE: Hi. Can you hear me?

5 CHAIRMAN WEISENMILLER: Yes, we can.

6 CAPTAIN WHITMIRE: Hi. Good morning, Dr.
7 Weisenmiller, Commissioner Scott and Commissioners. The
8 Department of the Navy is very excited and happy to have
9 the opportunity to work with the Energy Commission as we
10 have been on this vehicle to grid demonstration at Miramar.

11 As you heard in the presentation, the marines are
12 investing a significant amount of money for a new micro
13 grid at Miramar, and adding this new vehicle to grid
14 element will make this micro grid even more valuable to the
15 marines, the DOD and the State of California.

16 We've been actively working with the Commission
17 for several years, addressing the energy and water needs of
18 our bases and stations in California, and addressing the
19 new clean energy policies of both the state and the
20 Department of Defense.

21 As many of you may know, the marines and navy are
22 investing in a large effort to convert our fleet of over
23 400 tactical vehicle -- non-tactical vehicles in California
24 from traditional gas-powered to electric, and as mentioned,
25 24 of these new electric vehicles will be at Miramar and

1 part of this research demonstration effort.

2 The knowledge gained from the Commission-funded
3 research will help us to better understand how to obtain
4 best value from these electric vehicles. It will give us a
5 better understanding of the vehicle to grid -- about the
6 vehicle to grid's viability as a storage solution for
7 renewable powered micro grids, which are a centerpiece of
8 our regional energy strategy, and will allow us to share
9 our lessons learned with other DOD bases and commercial
10 fleet managers in California.

11 As I think Dr. Weisenmiller and Commissioner
12 Scott would agree, we've had a very effective working group
13 between the marines, the navy and key state agencies in
14 California for about three years now that meets monthly to
15 review our ongoing projects like this one, and a group that
16 actually meets twice a year in person to discuss all our
17 open issues and projects.

18 That group's provided tremendous value to the
19 Department of the Navy, and we think the State of
20 California, as well, and we expect that venue will help us
21 to insure this project will be successful and valuable for
22 both the state and the Department of the Navy, as our
23 previous projects have been.

24 I'm happy to answer any questions from Dr.
25 Weisenmiller and any of the Commissioners at this time.

1 CHAIRMAN WEISENMILLER: Thank you. Thank you
2 very much for being on the line. Let's transition over to
3 the Commissioners, and I was going to say a few words.
4 Basically, this project, you know, a few years ago Wade and
5 I had the notion that we wanted to do a vehicle to grid.

6 We have one vehicle to grid demo in California,
7 L.A. Air Force Base, and we wanted to do more. You know,
8 obviously, as Commissioner Hochschild pointed out, this
9 could be a key part of renewable integration. Obviously,
10 today if you do it you're warranties are, you know, void on
11 your car. But also, there's no experience.

12 So we had this. We wanted to do more
13 demonstrations. And so the original -- so I reached out to
14 each of the utilities who would demonstrate, you know, at
15 least three as a start, and PG&E stepped forward, but it
16 turned out the basis wasn't really -- that didn't really
17 work there.

18 And so we're doing a quick pivot down with the
19 marines to Miramar to get sort of this second project
20 going, and it's really good because we've also just got the
21 fleet there. And again, vehicle to grid makes a lot of
22 sense, particularly in this day and age if you have a
23 fleet, you know.

24 I mean, you're pretty clear if, you know, if the
25 ISO needs you, you got some vehicles on the grid. It's not

1 you're going to be 80 miles away, you know, driving around
2 or charging, you know. So anyway, it's a natural to really
3 drive the economics down and standardize the technology.

4 So the good news is now we have a second
5 potential that can move forward on the vehicle to grid
6 side. Commissioner Scott.

7 COMMISSIONER SCOTT: Absolutely. We couldn't ask
8 for a better partner in demonstrating so many of these
9 clean energy technologies and how it works in our clean
10 energy economy. Our Department of Navy's been a fantastic
11 partner. I just want to say hello to Captain Whitmire.
12 Thank you for joining us today.

13 CAPTAIN WHITMIRE: Yes.

14 COMMISSIONER SCOTT: I also so much appreciate
15 the Department of the Navy's forward lean on electric cars,
16 on micro grids and how to best integrate them. And so I'm
17 really excited about this project, as well, especially now
18 that it's found a terrific home.

19 One of the things that's also very exciting about
20 this that Mike Gravely and others talked to me in the
21 excellent briefing that I had before the business meeting
22 is, this one is also very complimentary to what we're doing
23 in L.A. Air Force Base.

24 In L.A. Air Force Base they've put enough cars
25 together to be able to bid ancillary services into the

1 grid, and this is a very different use of electric cars
2 here at Miramar in looking at how you integrate cars with
3 the micro grid.

4 And so it's kind of a -- we're looking at cars
5 and how they support the grid in different ways here. So
6 I'm very supportive of the project, excited to be moving it
7 forward. So I will -- Commissioner --

8 COMMISSIONER HOCHSCHILD: Just one comment from
9 me, which is, yeah, I'm in full support of this. I do
10 think this is something the auto manufacturers should be
11 looking at closely, because I think one scenario for the
12 manufacturers is that for fleet vehicles and for that
13 market you actually design into the cell pack so you have,
14 you know, some dedicated portion, 15 or 20 percent, of the
15 cell pack that's optimized for this, because that's one
16 push back you hear from the manufacturers, is this kind of
17 use is not what they intend.

18 But you can actually -- there are batteries that
19 are designed for that use and I think that's a scenario we
20 could see in the marketplace with our continued engagement
21 under the leadership of Commissioner Scott on this. But I
22 also, at the Chair's suggestion, visited the L.A. Air Force
23 Base maybe six months ago.

24 We went there with Mike Gravely; very impressive
25 to see that. And I think fleets are the right place to

1 start. So this is a terrific idea.

2 COMMISSIONER SCOTT: I will move approval of Item
3 14.

4 COMMISSIONER HOCHSCHILD: Second.

5 CHAIRMAN WEISENMILLER: All those in favor.

6 (Ayes.)

7 CHAIRMAN WEISENMILLER: So this item passes five
8 to zero again. Thanks. Actually, let's take a break for
9 one hour and be back by 1:10.

10 (Recess at 12:07 p.m. to 1:09 p.m.)

11 CHAIRMAN WEISENMILLER: Let's go -- let's start
12 with Item 15, which is Zero-Emission Vehicle Regional
13 Readiness and Planning Solicitation. Please.

14 MS. PUREWAL: Good afternoon, Commissioners.

15 COURT REPORTER: Microphone.

16 MS. PUREWAL: Oh, sorry. Good afternoon,
17 Commissioners. My name is Sharon Purewal, and I'm a Staff
18 Member in the Fuels and Transportation Division, Sierra
19 Mission Vehicle and Infrastructure Office. Today staff is
20 seeking approval of four agreements submitted under Grant
21 Funding Opportunity, GFO-16-601, which supports new and
22 existing planning efforts for zero-emission vehicles, which
23 include battery electric vehicles, hydrogen fuel cell
24 electric vehicles and plug-in hybrid electric vehicles.
25 Funding is provided through the Alternative and Renewable

1 Fuels and Vehicle Technology Program.

2 Item 15(a). The goal of proposed grant ARV-16-
3 011, with the San Diego Association of Governments, is to
4 utilize its \$300,000 award to plan and address barriers to
5 plug-in electric vehicle adoption and electric vehicle
6 charging station deployment in the San Diego region through
7 regional coordination, technical assistance, planning and
8 analysis and general plug-in electric vehicle awareness
9 activities.

10 Item 15(b) is proposed grant ARV-16-012 with the
11 Redwood Coast Energy Authority for \$109,651. This proposes
12 to continue the zero emission vehicle outreach and
13 assistance implemented through previous CEC grant, ARV-14-
14 056 -- or 46, excuse me -- in the counties of Humboldt, Del
15 Norte and Trinity.

16 As the lead agency for the North Coast Plug-In
17 Electric Vehicle Coordinating Council, the Redwood Coast
18 Energy Authority is ideally positioned to support ZEV
19 adoption through seminars, ride and drive events, media
20 outreach and through the creation of an ombudsman position
21 to support a zero emission vehicle assistance and liaison
22 activities.

23 Item 15(c) is a \$300,000 proposed grant award
24 ARV-16-013, with the Sonoma County Regional Climate
25 Protection Authority. This project proposes to provide

1 resources and support to consumers and local government
2 staff to accelerate electric vehicle adoption in Sonoma
3 County.

4 The objectives of this Agreement are to, one,
5 establish an electric vehicle concierge service, two, to
6 conduct government and employer training on key actions to
7 promote plug-in electric vehicles in Sonoma County, three,
8 to provide technical assistance and coordination to
9 streamline permitting for electric vehicle charging
10 stations and four, to publish an index of ranked sites that
11 show the highest potential for future electric vehicle
12 charging station installations, including site visits to
13 the top 20 locations.

14 The last item, 15(d), is ARV-16-014, with the
15 Tahoe Regional Planning Agency for \$104,897. This proposed
16 agreement proposes to implement recommendations from a
17 previous award under ARV-14-056, which was for regional
18 readiness plan development.

19 The Tahoe-Truckee Readiness Plan Implementation
20 Project aims to create an ombudsman position, identify site
21 specific infrastructure needs, develop outreach strategies,
22 outreach materials and create a streamlined permit and
23 inspection process for zero emission vehicles.

24 With that, I would like to thank you for your
25 time and consideration of these items. I am available for

1 any questions you may have.

2 CHAIRMAN WEISENMILLER: Thank you. Any comments
3 from anyone in the room or on the phone? Commissioner
4 Scott.

5 COMMISSIONER SCOTT: So this is a series. You
6 guys have seen these type of grants before. We do some
7 regional readiness to help regions plan for the zero
8 emission vehicles, as Sharon so eloquently just noted. And
9 then one of the things that I'm excited about here is we're
10 starting to give some money to implementation of those
11 plans.

12 So it's pretty exciting to be able to get the
13 infrastructure for zero emission vehicles out there. And
14 as so many of the things that we work on here in the state,
15 it's fantastic to have a local and regional partnership as
16 we roll these things out. So I -- if you don't have
17 questions, I will move approval of Item 15.

18 COMMISSIONER HOCHSCHILD: Second.

19 CHAIRMAN WEISENMILLER: All those in favor.

20 (Ayes.)

21 CHAIRMAN WEISENMILLER: This passes five to zero.
22 Thank you.

23 MS. PUREWAL: Thank you.

24 CHAIRMAN WEISENMILLER: Let's go onto Item 16,
25 Proposed Natural Gas Solicitation for Energy-Related

1 Environmental Research.

2 MR. FRANCO: Good afternoon, Commissioners and
3 Chairman. My name is Guido Franco. I'm the Team Leader of
4 the Environmental Group in the Research Division. We have
5 a series of I think six proposed projects, all funded by
6 natural gas funds, for a total of about \$5.6 million.

7 The first proposed agreement is with Energy and
8 Environmental Economics, E3, with some matching funding of
9 \$362,000. And we are funding this program because -- this
10 project because -- oh, I'm sorry. We are proposing you to
11 fund this project because prior studies about long-term
12 energy scenarios for California suggest in order to achieve
13 the greenhouse gases targets that we have in California and
14 goals, that the consumption of natural gas should go down.

15 However, I mean, there are other alternatives to
16 lower the carbon content of natural gas. So this project
17 is designed to find, you know, viable options to continue
18 using natural gas. This project has a strong component of
19 environmental justice inequity.

20 So we're going to be looking at the implications
21 of differing pathways for natural gas in environmental
22 justice communities. Natural gas utilities are key
23 partners for this project, especially So Cal Gas. The
24 second project is a project with Lawrence Berkeley National
25 Laboratory, and is designed to collect actual performance

1 of kitchen ventilation extraction hoods.

2 It has been shown that the existing hoods
3 sometimes are not operated properly, and also, which can
4 increase the amount of pollutants in the indoors, in some
5 cases exceeding the ambient quality standards for NOx and
6 for NO2 and for CO and for oil pollutants.

7 So this will be a field study looking at actual
8 performance and will -- the research team will come out
9 with suggestions, perhaps how to inform future updates of
10 the building standards.

11 The next project is a project with the University
12 of California in Davis. This has to do with the methane
13 emissions from abandoned natural gas wells in California.
14 I mean, a preliminary study funded by the Energy Commission
15 found that methane emissions are being emitted from
16 abandoned wells.

17 I mean, it was just a very, very cursory study
18 looking at I think about six wells. There have been other
19 studies outside California suggesting that, at least in
20 Pennsylvania, the methane emission from abandoned wells
21 could be substantial.

22 One reason we are proposing this project is that
23 with subsidence we have seen some pictures of some
24 abandoned wells, or some wells, which have protruded from
25 the surface. So we are concerned about the structural

1 integrity of the wells.

2 So the research is staying to look at emissions,
3 both in areas that are being affected by subsidence and
4 areas that have not even been affected as much, and look if
5 they see subsidence will be one with *13:11:00 variables.
6 There's three research groups involved in this project, and
7 one including Stanford University and Lawrence Berkeley
8 National Lab.

9 The next project is a project with Electric Power
10 Research Institute. It's also about methane emission
11 through a natural gas system is downstream of the meters,
12 but in this case downstream of industrial facilities, power
13 plants.

14 Again, a prior study just measured in two power
15 plants and a handful of -- I think two or three refineries.
16 We found out that some of them are meeting much more than
17 anticipated. A recent paper just published two days ago by
18 researchers from Purdue University report similar findings
19 in the East Coast.

20 So the idea here is to do an exhaustive
21 evaluation of emissions from industrial facilities,
22 selected industrial facilities. For the first time we will
23 be using two approaches. One is called the bottom up.
24 That means that a researcher will be measuring emissions in
25 each one of the components of the industrial facility.

1 And then we'll have measurements that we call
2 bottom up -- top down, using a researcher craft that will
3 circulate the facility to measure total emissions. So the
4 hope is that the top down and bottom up emission estimate
5 will coincide. If they don't, there's something wrong with
6 the measurements.

7 The next agreement is with the Lawrence Berkeley
8 National Laboratory and it has to do, again, with
9 subsidence. Subsiding has in some places in the central
10 body produced a vertical movement downward of the surface
11 up to 10 feet.

12 In other areas it's less, but I mean, I think
13 it's a serious issue. It has been affected already where
14 the state water project, you know, the aqueduct bringing
15 water from Northern California to Southern California, I
16 was just told for everybody frame of mind that for the
17 Department of Water Resources this morning, and it's
18 supposed to be in the public domain, that that has
19 decreased the capacity of the aqueduct by 20 percent.

20 So what we're trying to do is to look at the
21 effect of the subsidence on natural gas system. Nothing
22 has happened with the natural gas system with the
23 pipelines. So this is just a proactive measure to measure
24 that nothing will happen, nothing would happen.

25 One thing that we had a staff workshop on this

1 with the utilities and with experts from National
2 Laboratories and others, and they told us that it's not
3 enough just to look at the vertical movement of the land,
4 that we also need the lateral movements.

5 So the measurements will be made using a three-
6 dimensional technique to get the information that -- both
7 in the vertical direction and the horizontal directions.
8 So staff recommends approval of all the proposed agreements
9 and we're happy to answer any questions that you may have.

10 CHAIRMAN WEISENMILLER: Thank you. Anyone either
11 in the room or on the phone has a comment? Then let's
12 transition to the Commissioners. Again, I think you've got
13 -- I think Guido gave a very thorough description of these,
14 I think; so certainly important work as we try to get a
15 better handle on some of the methane leakage area issues.
16 So again, I certainly encourage folks to support this.

17 COMMISSIONER SCOTT: Move approval of Item 16.

18 COMMISSIONER McALLISTER: I'll second.

19 CHAIRMAN WEISENMILLER: All those in favor?

20 (Ayes.)

21 CHAIRMAN WEISENMILLER: This passes five to zero.
22 Thanks. Let's go to 17, Federal Cost Share Under the
23 Electric Program Investment Charge.

24 MR. EHYAI: Thank you, Chairman. Good afternoon,
25 Commissioners. My name is Amir Ehyai, with the Energy

1 Efficiency Research Office. This project will develop the
2 VOLTTRON Testing Tool Kit. VOLTTRON is DOE's open source
3 platform for transactive energy applications.

4 Transactive energy is a vision of an intelligent
5 device enabled grid where each device can use economic
6 signals to optimize allocation of resources, subject to
7 grid constraints. The VOLTTRON platform can manage a wide
8 range of applications such as HVAC systems, electric
9 vehicles and distributed energy or building loads, allowing
10 for more effective integration with the electric grid.

11 In the building space, VOLTTRON allows users to
12 run monitoring and control applications, which interface
13 with existing building management systems and provides
14 enhanced supervisory control of heating, cooling, lights
15 and other functions in buildings.

16 VOLTTRON deploys applications via automation
17 systems that gain access to HVAC and other data to identify
18 and diagnose problems. The technology offers passive
19 capabilities that report problems, as well as active
20 approaches that fix the problem, resulting in improved
21 system efficiency and reduced energy use.

22 The Pacific Northwest National Laboratory
23 developed VOLTTRON as part of the Future Power Grid
24 Initiative. The agreement under consideration today is
25 with Stanford Linear Accelerator Laboratory and will

1 provide Energy Commission cost share to leverage a \$700,000
2 Department of Energy award to Stanford to develop the
3 VOLTTRON Testing Tool Kit.

4 The VOLTTRON Testing Tool Kit will further the
5 development of the VOLTTRON platform, facilitate its
6 adoption and demonstrate the benefits of the platform. The
7 research team will collaborate on extending the automated
8 test framework currently under development, create and
9 enhance the Developer Debug Tool Set and tackle some of the
10 top open issues in the VOLTTRON repository.

11 All knowledge gained and software written will be
12 pushed to GitHub for open source development -- for open
13 source use. This project leverages existing doe
14 investments and will allow for widespread adoption of the
15 VOLTTRON platform by research entities and private
16 companies. Thank you. And I'm happy to answer any
17 questions.

18 CHAIRMAN WEISENMILLER: Great. Thank you. Any
19 comments from anyone in the room or on the line? Let's
20 just go to Commissioners. Again, one of the things that
21 we've been really able to do with the EPIC Program is
22 effectively to leverage federal funds by providing some of
23 the cost share. It's a good example of how that's working,
24 at least for some interest in research at SLAC. *13:17:49
25 I got an image of folks --

1 COMMISSIONER HOCHSCHILD: I was just -- I'm sort
2 of ignorant, but we're all meeting here on transactive
3 energy. Could you explain that a little bit about
4 specifically how this would -- what are -- give us some
5 examples of the type of benefits, specifically in terms of
6 savings, this could help produce?

7 MR. EHYAI: Sure. Sure. So I'll read for you a
8 bit here. So for transactive energy, the growing presence
9 of distributed energy resources is likely the single most
10 important driver of transactive energy. And while the
11 evolution of decentralized transactive energy grid is very
12 likely -- the transactive energy grid is in the embryonic
13 stage. Nevertheless, significant work has been done in the
14 framework of this.

15 COMMISSIONER HOCHSCHILD: Sorry. Can you
16 explain, what do we mean by transactive energy? Is that
17 just energy activity?

18 CHAIRMAN WEISENMILLER: Let me try to --

19 COMMISSIONER HOCHSCHILD: Sure.

20 CHAIRMAN WEISENMILLER: -- let me try to help. I
21 think -- I don't know if you've met Ed Cazalet. Anyway, Ed
22 was one of the ones who set up the competition for the
23 Power Exchange. And you know, so he's been trying to
24 encourage markets and the energy in terms of doing
25 transactions back and forth on excess supply and demand,

1 particularly in the ancillary services.

2 In fact, he has a users' group on LinkedIn on
3 transactive energy. So it's somewhat of a buzz phrase in
4 Silicon Valley, or at least in some subset of Silicon
5 Valley. But the notion is that, again, if you have, you
6 know, say a PV system and you have some additional power,
7 that somehow trying to connect you with someone at that
8 point who needs the power.

9 Or if you have an ancillary -- you know -- if
10 your car is plugged in and, you know, you were trying to
11 basically find a market for selling some of the spin, you
12 know, ancillary services, you would anyway do that through
13 transactions back and forth.

14 So this is the idea of using computers to connect
15 buyers and sellers in the digital economy. I think that's
16 --

17 COMMISSIONER McALLISTER: And I would just throw
18 in auto -- basically, if you think of a very flexible,
19 realtime web-based -- and I don't mean web like Internet
20 web. I mean, sort of like web, like food web kind of
21 thing, like lots of different distributed resources demand,
22 you know, malleable demand, generation, all kind of
23 integrating together in realtime and that's -- this
24 platform kind of helps that happen, facilitates all that
25 and allows -- you know -- sort of like the stock exchange,

1 just allows it all to happen automatically --

2 COMMISSIONER HOCHSCHILD: That's a great --

3 COMMISSIONER McALLISTER: -- and quickly.

4 COMMISSIONER HOCHSCHILD: That's a great analogy.

5 CHAIRMAN WEISENMILLER: Yeah. No. That's
6 exactly his -- yeah, Cazalet's idea.

7 COMMISSIONER McALLISTER: So I'm familiar with
8 the VOLTRON platform and I think it's one of these
9 examples that DOE has taken leadership. They've said, hey,
10 we need an approach. We need -- the market's not going to
11 do this itself. We're going to find this tool.

12 You know, it's not a perfect tool. We want to
13 enlist stakeholders to invest in it and use it and make it
14 better and make it publicly accessible. And so, you know,
15 this open-sourced platform idea is something, you know,
16 we've obviously gone through this with our building
17 standards tools.

18 And it can be traumatic to create these new tools
19 and get them up ready for prime time, but once you've got
20 it, it's fantastic. And so you know, I think DOE
21 definitely ought to be commended and I'm really glad to
22 hear that SLAC, know that SLAC is working with them.

23 And our participation, you know, even if it's 10
24 percent of the whole or something like that, gives us
25 access, which is great. So this is a big win, I think.

1 It's an easy one. So I'll move Item 17.

2 COMMISSIONER HOCHSCHILD: Second.

3 CHAIRMAN WEISENMILLER: All those in favor?

4 (Ayes.)

5 CHAIRMAN WEISENMILLER: So Item 17 passes five to
6 zero. Thank you.

7 MR. EHYAI: Thank you.

8 CHAIRMAN WEISENMILLER: Let's go on to 18,
9 Improving Performance and Cost Effectiveness of Small
10 Hydro, Geothermal and Wind Energy Technologies.

11 MS. PALMA-ROJAS: Good afternoon. My name is
12 Sylvia Parma-Rojas, for the Energy Research and Development
13 Division. I'm here to request your approval of one grant
14 agreement recommended for funding under Grant Funding
15 Opportunity GFO-16-301.

16 The purpose of the solicitation was to fund
17 applied research and development projects that develop
18 technologies tools to enable higher penetration of
19 renewable energy, and to reduce technological, economic
20 barriers to a small hydro power, geothermal and wind energy
21 generation.

22 The agreement I am presenting today is
23 recommended for funding under the Wind Energy Group of the
24 solicitation. This group was focused on maximizing the use
25 of wind energy reserves in California, reducing the cost of

1 energy implementation improving reliability and flexibility
2 of power systems with large-scale integration of wind
3 energy.

4 This project is with the University of California
5 in Davis. This demonstration project will develop upgrades
6 of aged wind turbines to enable remote communication and
7 dispatch of turbines dynamically in response of realtime
8 grid market price and weather conditions.

9 The upgrade will address neutral concerns of wind
10 plant owners and grid operators, and enable extended
11 economic useful life of the turbines. The project will
12 deploy and test the remote communication and turbine
13 dispatch system in their wind energy facility located in
14 Tehachapi wind resource area.

15 The field demonstration in the operating wind
16 plan will help to identify suggestions, to review risk of
17 implementation for subsequent deployments. If successful
18 these projects will improve operation of wind turbines
19 within high wind regime areas, reducing operation cost,
20 extending turbines' life, enabling turbine -- aged turbines
21 to perform more similarly to modern turbines on the grid.

22 I am requesting your approval for this agreement
23 and ready to answer the questions you may have. Thank you.

24 CHAIRMAN WEISENMILLER: Thank you. Any comments
25 from anyone in the room or on the phone. Okay. I'm going

1 to say, obviously, one of the things which we've been
2 struggling with is repowering. Repowering existing wind is
3 one of the most interesting options we have in California.

4 And so as we were looking for funding in this
5 area we had a workshop, got suggestions from people on how
6 -- what we could do in the areas of wind, small hydro and
7 geothermal. And in the wind area is an interesting one,
8 ways of taking.

9 Obviously, California was one of the leaders in
10 the reemergence of wind in the world, you know, going back
11 to the first Brown Administration. So we have some pretty
12 old machines in pretty high wind resource areas, and if
13 there's a way to build in some of the more modern
14 communication software, that would certainly make the --
15 those machines more valuable over time, and certainly
16 different from the, let's repower and replace with much
17 larger machines. But again, this would be an interesting
18 thing to add to the tool chest.

19 COMMISSIONER McALLISTER: This transforms
20 optimization is just really fascinating, you know, the sort
21 of using modern analytical tools to get more out of what we
22 have, you know, buildings, turbines, whatever, it's all --
23 I mean, it's great. So do you want to move -- okay. I'll
24 move Item 18.

25 COMMISSIONER SCOTT: Second.

1 CHAIRMAN WEISENMILLER: All those in favor?

2 (Ayes.)

3 CHAIRMAN WEISENMILLER: Thank you. So this was
4 approved five to zero. Let's go on to Item 19, Emerging
5 Energy Efficiency Technology Demonstrations.

6 MR. VILLANUEVA: Good afternoon, Commissioners.
7 My name is Felix Villanueva, of the Energy Efficiency
8 Research Office. Staff is recommending three EPIC grants
9 for approval today. These proposed grants were submitted
10 to a competitive solicitation GFO-16-304, Emerging Energy
11 Efficient Technology Demonstrations.

12 The purpose of this solicitation is to accelerate
13 market adoption of pre-commercial technologies by
14 demonstrating them at a large scale. All of these projects
15 must demonstrate a reduction of a building's energy use by
16 20 percent.

17 The project demonstrations are located in Los
18 Angeles Basin, most affected by the shutdown of Aliso
19 Canyon Natural Gas Storage Facility. The first item is
20 leading in Los Angeles, demonstrating scalable, emerging
21 energy efficient technologies for integrated facade,
22 lighting and plug loads with New Buildings Institute.

23 This project looks to support California's energy
24 goals, such as SB 350, by increasing energy efficiency in
25 existing buildings. New Buildings Institute will do this

1 by demonstrating a holistic approach targeting lighting,
2 building facade and plug loads.

3 These integrated efficiency packages include
4 automated, self-powered shades, advanced lighting and
5 controls, plug load management and advanced smart building
6 meters. The packages will also provide superior thermal
7 comfort for occupants.

8 These packages will be installed and demonstrated
9 at several existing government buildings in the cities of
10 Santa Ana and El Monte, California. This solution is for
11 commercial buildings, but can also be applicable to
12 residential, as well.

13 It produces higher savings than individuals
14 technologies in isolation with higher user amenity. This
15 solution is also available for new construction and will
16 therefore also support California's statewide zero net
17 energy codes and standards.

18 The second item is Internet of Things and
19 Ubiquitous Sensing in the University Building, Energy
20 Management, Design Optimization and Technology
21 Demonstration with California State University, Long Beach.
22 Many existing building owners are reluctant to take on
23 brand new technologies or upgrades due to the need of
24 additional in-house technical personnel and expertise.

25 The demonstration project consists of building

1 energy management system based on Internet of thing devices
2 and network of sensors and actuators to control lighting,
3 HVAC, plus loads, for energy efficiency and demand side
4 management.

5 This project aims to help the technology partners
6 develop solutions that will be attractive to existing
7 building owners, especially academic building
8 administrators. It helps identify successful demand side
9 management, implementation and operation methods and
10 produce data and quantifiable results on the efficiencies
11 that can be realized.

12 This project will be demonstrated at a building
13 on the CSU Long Beach Campus. This project has a potential
14 for repair benefits of greater electricity reliability,
15 lower cost and cleaner air. These technologies can
16 directly reduce overall and peak hour energy consumption
17 and energy demand from the grid.

18 The last item is Automated Cloud-Based
19 Continuously Optimizing Building Energy Management System
20 with Zero Net Energy Alliance. Current building energy
21 management systems are typically programmed and set to a
22 pre-defined schedule to insure pre-determined set points
23 are reached.

24 However, most energy management systems fail to
25 optimize energy use because it fails to detect when

1 building and energy systems degrade over time in the months
2 and years following commissioning. This project will
3 introduce a new cost-effective technology called the Cloud-
4 Based Continuously Optimizing Building Energy Management
5 System.

6 This technology can connect to existing building
7 energy management systems, sensors, controllers and meter
8 each of their needed protocol and interface. This
9 technology is designed to overcome limitations of existing
10 building energy management systems by automating
11 optimization and management of energy consuming devices
12 through cloud-based AI.

13 Large quantities of sensor and energy management
14 data will be routed to the cloud for AI-based optimization
15 and analytics. This project eliminates the need for
16 expensive building energy management systems reprogramming
17 to implement optimization measures.

18 The technology will be installed in 11 mixed-use
19 buildings across two college campuses in Southern
20 California. The benefits include reduced energy use,
21 increased real time automated demand response capabilities
22 and reduced building operational costs, and automating
23 energy management systems and fault detection, providing
24 access to realtime data on occupancy and environmental
25 conditions, automating systems adjustments and optimizing

1 energy use. Thank you and I'm happy to answer any
2 questions you may have.

3 CHAIRMAN WEISENMILLER: Thank you. Any comments
4 from anyone in the room? Okay. I think we have one on the
5 line on Item B.

6 MR. NAZARI: Hi. I'm Masoud Nazari, from Cal
7 State Long Beach. I just joined. I seem to have -- first
8 of all, thank you very much for this great opportunity. I
9 think that was like, you know, the explanation was great
10 and I just want to say we are very excited about this
11 project and I think this is a great opportunity for us to
12 demonstrate these technologies in one of the large
13 buildings in our campus. And we believe it has great value
14 to ratepayers. Thank you.

15 CHAIRMAN WEISENMILLER: Thank you. Let's
16 transition to the Commissioners. Obviously, one that
17 you've been dealing with is Aliso Canyon. And our EPIC
18 Program is obviously research, development and
19 demonstration. To they're all the way through the
20 spectrum.

21 So we're trying to do some things which are more
22 in the demonstration, development stage, as opposed to pure
23 research. So it might help us at Aliso in five or 10
24 years. So anyway, I think these are good projects to start
25 moving forward in that sense.

1 But again, I think, again, you'll see over time
2 more projects popping up which are trying to provide some
3 focus in that area, and some focus is a little bit more
4 towards the hardware side, as opposed to the pure research
5 side.

6 COMMISSIONER McALLISTER: Yeah. This is a great
7 group of projects. Thanks very much. And you know, it's
8 got Z and E and it's got existing buildings. It's like,
9 you know, tailor made for me to love it, and a great group
10 of partners. I mean, this is really -- these are top
11 notch.

12 And so we're super excited to see what comes out
13 of this small group, and then as the Chair says, increase
14 portfolio over time. You know, this is where we have to
15 go. Buildings have to perform and they have to be grid
16 responsive and they have to incorporate and integrate lots
17 of different technologies.

18 And I'm very, very supportive and optimistic
19 about this. And this is a lot of money, too. These are
20 big grants, relatively, and I think that just highlights
21 what a high priority this is for the Commission and how
22 important it is going forward. All right. So I will move
23 Item 18.

24 COMMISSIONER HOCHSCHILD: Second.

25 COMMISSIONER McALLISTER: Oh, I'm sorry. Item

1 19, now.

2 COMMISSIONER HOCHSCHILD: Second.

3 CHAIRMAN WEISENMILLER: Okay. All those in
4 favor?

5 (Ayes.)

6 CHAIRMAN WEISENMILLER: So Item 19 passes five to
7 zero. Thank you.

8 MR. VILLANUEVA: Thank you. Thank you.

9 CHAIRMAN WEISENMILLER: Let's go on to Item 20,
10 Advancing Cutting-Edge Technologies and Strategies to
11 Reduce Energy Use and Costs in the Industrial, Agriculture
12 and Water Sectors.

13 MR. MORI: Good afternoon, Commissioners. I am
14 Kevin Mori of the Energy Efficiency Research Office, as
15 well. Today, staff is recommending approval of the
16 following four applied research agreements.

17 Item A is, Facilitating On-Farm Participating in
18 Energy Demand Management Programs with Irrigation for the
19 Future. Deficit irrigation has a lot of management
20 challenges and poses some problems for participating in
21 demand response programs.

22 In this project, Irrigation for the Future will
23 upgrade and deploy their decision support system that will
24 focus on optimizing deficit irrigation for farms in the San
25 Joaquin Valley. This project has the potential to reduce

1 energy use for irrigation by 15 percent during peak hours.

2 Item B is, Irvine Ranch Water District Demand
3 Response Project with Advanced Microgrid Solutions. Water
4 utilities use approximately eight percent of annual
5 electricity in California and do not have the proper
6 resources to participate in demand response programs.

7 Advance Microgrid Solutions will be testing a
8 platform that bundles technologies such as monitoring
9 equipment, modeling software and a pre-commercial cost
10 optimization model. This will enable water agencies to
11 participate in demand response programs and load shifting
12 optimization, and has the potential to reduce peak demand
13 by 22 percent for water agencies.

14 Item C is, Water/Energy Bank Proof-of-Concept,
15 with Antelope Valley Water Storage. Pumping water from
16 north to south via the State Water Project takes
17 approximately 47,000 megawatts, which is approximately two
18 percent of the summer peak demand.

19 Antelope Valley will test shifting the water
20 delivery from the State Water Project to off peak seasons
21 and use gravity to deliver the water to customers when
22 needed. This test has the potential to reduce
23 approximately 320 megawatts of summer peak load annually.

24 Item D is, Enabling Energy Efficient Data Centers
25 in Smart Power Distribution Systems with UC Riverside.

1 Energy efficiency in hardware for data centers has come a
2 long way, but data centers still require a significant
3 amount of energy.

4 UC Riverside will be developing and testing
5 algorithms and software to improve data center energy
6 efficiency at the server level, data center level and data
7 center cluster level. These technologies have the
8 potential to save approximately 35 percent of electricity
9 from data centers.

10 Thank you. I'm happy to answer any questions,
11 and I do believe we have someone from Advance Microgrids to
12 provide comments, and someone on from Antelope Valley Water
13 Storage to help answer questions.

14 CHAIRMAN WEISENMILLER: Great. So let's start
15 with anyone in the room have comments? Then let's go to
16 the parties on the line. Let's start out with 20B, so
17 Advanced Microgrid Solutions. Okay. Then let's go on to
18 20C, Antelope Valley. Please go ahead.

19 MR. BEUHLER: Okay. Thank you. Hello. This is
20 Mark Beuhler, with Antelope Valley Water Storage, and just
21 wanted to say we're really appreciative of the grant and
22 look forward to doing this work.

23 CHAIRMAN WEISENMILLER: Great. Thank you. Let's
24 transition over to the Commissioners. So again, I think
25 this is one where we're looking at some very interesting

1 technologies, you know, and probably more towards the D&D
2 part than the R part.

3 But and certainly, it's good to get some of this
4 stuff out in the field. So anyway, I think this is pretty
5 interesting combinations here.

6 COMMISSIONER SCOTT: Move approval of Item 20.

7 COMMISSIONER McALLISTER: Second.

8 CHAIRMAN WEISENMILLER: All those in favor.

9 (Ayes.)

10 CHAIRMAN WEISENMILLER: So Item 20 passes five to
11 zero. Thank you. So let's go to Item 21, Discussion of
12 Energy Commission Progress Re Implementation of the Clean
13 Energy and Pollution Reduction Act of 2015 (SB 350).
14 Michael.

15 MR. SOKOL: All right. Good afternoon,
16 Commissioners. Michael Sokol, Special Project Manager for
17 SB 350 implementation. And as you hear each month, there
18 are quite a few ongoing efforts related to SB 350.
19 Unfortunately, we only have enough time in these meetings
20 to cover just one or two of those at each meeting.

21 And last month we heard about some of the
22 progress towards establishing a statewide energy efficiency
23 doubling target, as well as a status update on the data
24 collection rule-making to support implementation of SB
25 350's required activities.

1 Today's update will really focus on the Energy
2 Commission's efforts related to Integrated Resource
3 Planning, or IRPs. IRPs are in some way sort of the glue
4 that holds together the various resource specific
5 provisions in SB 350 that are aimed at reducing carbon in
6 the energy sector.

7 The Energy Commission is tasked with developing
8 guidelines for and evaluating IRPs submitted by the state's
9 largest publicly owned utilities, and the Public Utility
10 Commission is tasked with overseeing the development of
11 IRPs for investor owned utilities and other load serving
12 entities.

13 SB 350 requires that IRPs must meet the 50
14 percent renewables procurement target, enhance distribution
15 systems and demand side resources and meet GHG reduction
16 targets established by the Air Resources Board in
17 coordination with the Energy Commission and the CPUC.

18 IRP's must also address a number of resources and
19 topics, including energy efficiency and demand response,
20 renewables as I just mentioned, and energy storage,
21 transportation and electrification and system reliability,
22 all while providing some degree of flexibility to utilities
23 and how they achieve the GHG reduction targets.

24 So to begin this conversation of how to define a
25 methodology for establishing these GHG reduction targets,

1 the Energy Commission held a Joint Workshop on February
2 23rd, along with CPUC and ARB, to discuss potential options
3 with the stakeholders.

4 An options paper was published ahead of this
5 workshop to describe the two key topics to be addressed in
6 this Joint Agency process, and posed a number of supporting
7 questions to help frame stakeholder comments. The first
8 topic in this discussion paper was a question of how to
9 establish a sector-wide GHG emission reduction target for
10 use in IRP planning purposes.

11 Two major options were described for establishing
12 this target, either using a target that's within the range
13 or the range itself identified in ARB's Scoping Plan, or
14 the second option was basing the target on the electricity
15 sector's share of the most recent GHG emissions inventory.

16 At the workshop stakeholders expressed a
17 preference for using Option A, the Scoping Plan target
18 range, to align the IRP targets with the existing Scoping
19 Plan effort and insure consistency. The second topic in
20 the paper was to decide on a methodology for dividing the
21 sector-wide target between the Energy Commission and CPUC's
22 respective IRP processes.

23 Three major options are described in the paper.
24 The first would be something similar to ARB's allowance
25 allocation methodology used in the Cap and Trade Program.

1 The second option would be basing this division on the load
2 served in 2016, and the third option would be to develop a
3 bottom up methodology that's applied consistently across
4 all the utilities.

5 Stakeholders have thus far expressed a preference
6 for using Option C and going with this bottom up
7 methodology, and they also noted that using this method
8 would essentially allow agencies to skip ahead to the final
9 upcoming step of establishing individual POU and LSE
10 targets for IRP purposes.

11 Final comments on interagency GHG target setting
12 workshop and the options paper are due tomorrow, March 9th,
13 by 5:00 p.m. The Joint Agencies will then need to evaluate
14 all of the comments before deciding on which method should
15 be used, and then moving forth in the separate agency
16 processes to establish individual POU and LSE targets.

17 Separately, a second workshop was held later in
18 the afternoon on February 23rd, to discuss development of
19 IRP guidelines for publicly-owned utilities. A discussion
20 paper was posted ahead of this workshop to outline the key
21 topics that staff proposes to include in the guidelines.

22 Because this discussion paper was only posted a
23 few days before that workshop, the comment period has been
24 extended until March 23rd to allow stakeholders plenty of
25 time to review the topics described in the paper. And as

1 requested by Chair Weisenmiller at the workshop, staff
2 plans to hold a webinar next Monday, March 13th, to discuss
3 any major questions or concerns that stakeholders have
4 identified with the paper and the proposed guideline topics
5 while the official comment period is still open.

6 And looking forward, a second stakeholder webinar
7 will be held to discuss inputs, assumptions and
8 administrative review process related to POU IRPs, and
9 that's for a to be determined date sometime in mid-April.
10 So that'll be announced quickly here.

11 We also plan to have a May 25th workshop on the
12 draft POU guidelines as those become developed, and those
13 will be posted a couple weeks ahead of that workshop. And
14 then final guidelines are scheduled to be considered for
15 adoption at the July 12th business meeting.

16 So in other 350-related items, we'll hear some
17 updates in future business meetings about implementation of
18 the SB 350 low income barrier study, details of developing
19 a publicly available tracking system for SB 350's goals,
20 and another update on the Title 20 data collection rule-
21 making that provides more information about the Energy
22 Commission's future plans.

23 At this point I'd be happy to take any questions
24 the Commissioners may have.

25 CHAIRMAN WEISENMILLER: Thank you. Any

1 questions?

2 COMMISSIONER SCOTT: I don't have a question for
3 you. That was a great summary. Thank you so much. Just
4 an underscore. Mike sent out over the weekend, I think it
5 came out on Saturday, the Draft Agenda for the SB 350
6 Barriers Workshop, and if you haven't given him your
7 comments yet, I encourage you to please get those to him.
8 That's all I have on this.

9 COMMISSIONER McALLISTER: So that was
10 informational, right. But yeah, so I want to just thank
11 Mike for all your work and the team, and this is an
12 Executive Office for sort of, you know, making sure the
13 resources are there to really follow all the threads on SB
14 350, and Commissioner Scott for providing the umbrella for
15 that.

16 And in particular, you know, kind of in the
17 efficiency world, having the IRP, the data and the doubling
18 of efficiency all on parallel tracks and talking to each
19 other is really critical for getting all this right. And
20 you know, our -- the various divisions and our respective
21 staffs are involved in that and making sure that happens,
22 and I wanted just to express optimism that it will continue
23 to, and thank you for making sure it does.

24 CHAIRMAN WEISENMILLER: Any public comment from
25 anyone in the room or on the line? So let's go to -- thank

1 you. Let's go to Item 22, Minutes.

2 COMMISSIONER DOUGLAS: Move the Minutes.

3 COMMISSIONER SCOTT: Second.

4 CHAIRMAN WEISENMILLER: All those in favor?

5 (Ayes.)

6 CHAIRMAN WEISENMILLER: The Minutes were approved
7 five to zero. Let's go on to Lead Commissioner or
8 Presiding Member Reports. Commissioner Scott.

9 COMMISSIONER SCOTT: Right. So just a couple of
10 things to highlight for y'all since we last met. Last --
11 yesterday, actually, we had the Plug-In Vehicle
12 Collaborative Meeting. It was in a wonderful park near
13 Dodger Stadium that I didn't actually know was back there
14 and it's actually quite large and has a whole history to
15 it.

16 But the meeting was in a lodge that was there and
17 it was a very nice setting for that. One of the things I
18 wanted to highlight for you from that meeting is Faraday
19 Future was there and they had the brand new car. It was
20 kind of a -- it was the engineering mockup of the car.

21 It wasn't the -- kind of like the first round of
22 cars yet, but it was really neat to see. I mean, it looks
23 like it could seat up to five people. They gave us a bunch
24 of statistics on it and it'll be -- but not the price --
25 and it'll be available, though, in late 2018. So that was

1 kind of exciting to see.

2 I had a chance to do a little bit of speaking at
3 CALSTART's Low Carbon Fuel Summit a couple of weeks ago,
4 which was great, just to highlight what the Energy
5 Commission is doing in the biofuels, biogas, you know,
6 diesel substitute, gasoline substitute area and kind of
7 hear what other folks are thinking in that space.

8 There was also a California Maritime Leadership
9 Symposium immediately after our Business Meeting last
10 month, and that was just a great opportunity to, again,
11 hear what folks in the maritime industry are looking at.
12 The Energy Commission, as you know, through ARFETP, at
13 least, is not funding too much on kind of the maritime
14 side, but we are doing a lot of work with the ports.

15 So it was a good chance to highlight the
16 partnership that the Energy Commission has with the six
17 ports, six ports up and down our coast here. And last but
18 not least, we had our Alternative and Renewable Fuel and
19 Vehicle Technology Program Advisory Committee Meeting.

20 Our friends at the San Joaquin Valley Air
21 Pollution Control District were kind enough to host us in
22 their buildings. That was terrific. We had a chance to
23 meet in Fresno and have a different set of stakeholders and
24 of the public come in and participate in the meeting.

25 And we're making good progress on that report,

1 which should come to us for our consideration in April.
2 That's where I am.

3 COMMISSIONER McALLISTER: Yeah. I'll be very
4 brief. It's only been three weeks since we had our last
5 Business Meeting, so. But I really wanted to just take
6 this opportunity to thank our staff, because I've been
7 pretty much here in the building, haven't gotten out much
8 in the last three weeks, because there's been a lot to do.

9 And you know, you heard about a lot of the Title
10 20 and Title 24 work, particularly, you know, specific
11 Title 20 topics and then the zero net energy work and title
12 -- the Building Standards Update for 2019. You know, we're
13 really in the thick of a lot of detailed, important work.

14 And the staff in the Efficiency Division is just
15 pedal to the metal working on a bunch of different things,
16 and it's all very important and necessary. Also wanted to
17 highlight the fact that on the Building Standards I think
18 we're doing probably more than historically perhaps,
19 coordination with the PUC on, particularly on the ZNE topic
20 and looking at some of the grid issues that that brings up.

21 And really, again, this theme of integration
22 keeps, you know, coming up in different arenas, and I think
23 it's just really the central kind of issue of our time.

24 And you know, on the data regs and the doubling of
25 efficiency, I wanted to thank my staff, certainly, Brian

1 Early and Martha Brook, for all the heavy lifting they've
2 been doing on that; and also, the staff of both divisions,
3 the Efficiency Division and the Analysis Energy Council's
4 Division, because there's just a lot of really
5 groundbreaking thinking going on about how we deal with
6 these challenges that we've been dealing with by the
7 Legislature around SB 350.

8 Finally, the 802 Guidelines are almost done. So
9 we'll have presently a bench-marking program stood up and
10 running throughout the state with, you know, mandatory time
11 certain requirements in it, and a very clear rollout
12 schedule over the next couple of years. So we're very,
13 very excited about that.

14 And for my part, I've really just given, you
15 know, a few talks over the last few weeks down in
16 Riverside, at their Solar Conference, which was a good one,
17 and at my alma -- the Chair and my alma mater, at the
18 Energy and Resources Group at UC Berkeley.

19 And really, the highlights of almost all the
20 presentations I give these days have to do with these
21 issues that we keep talking about, how, you know,
22 integration, heavy duty efficiency, incorporation of new
23 technology and data, and how it all fits together and how
24 we're trying to lubricate the system really to get the
25 marketplace stood up and running and making all this

1 happen.

2 So anyway, we have a lot of good stuff to talk
3 about in both within this building amongst ourselves, but
4 also, you know, looking out and helping with our
5 stakeholders so they can get their head around this and
6 make things happen in the world. So that's it for me.

7 COMMISSIONER DOUGLAS: So I have a brief report.
8 On Thursday, March 2nd, I had an opportunity to speak at
9 the Offshore -- 2017 California Offshore Wind Symposium,
10 and it was a really good event, very, very well attended.
11 In fact, they were sold out and pretty much at capacity at
12 the Library Galleria here in Sacramento.

13 And it was put together by an association of
14 offshore wind companies and actually a partnership of
15 groups that organized the conference, and a lot of industry
16 speakers, a lot of people from various science and
17 technical backgrounds.

18 And I provided, with Joan Barminski, who is the -
19 - essentially State Director of the Bureau of Ocean Energy
20 Management, some perspective on the process going forward
21 with the State of California and BOEM Task Force and some
22 of our milestones, the MOU that was signed by the Governor
23 and Secretary of Interior in December of last year, and
24 broadly some perspective on California's climate and
25 renewable energy goals, and our path towards meeting those

1 goals.

2 On Friday, the 3rd, we had the first of what will
3 probably be several workshops, and these workshops are
4 noticed by the Energy Commission, but really, we have
5 participation from a range of state and federal agencies,
6 because these workshops are being held in support of the
7 task force effort.

8 But in particular, what we're doing here is we're
9 using some of the same methodologies that were really
10 successful in the desert and other parts of the state, and
11 gathering information, sharing information, putting science
12 together in an accessible and transparent way to help guide
13 planning for different kinds of renewable resources.

14 And in this case, because we have some fairly
15 near-term objectives in the task force, we're really
16 looking at what available information can tell us about
17 what areas may or may not be appropriate for consideration
18 for offshore wind.

19 Now, I'll say just at a high level because we
20 haven't had much substantive discussion of this topic, you
21 know. Commissioner Hochschild, who's giving his report
22 next and who was at both of these events, will provide some
23 perspective, as well, but it's a very mature industry in
24 Europe.

25 And of course, in Europe it's also a different

1 technology because they have shallower water and fixed
2 bottom platforms. But Europe alone has exceeded 12,000
3 megawatts now of interconnected offshore wind, and the cost
4 has gone down dramatically, even in the last three years
5 from around 15 cents a kilowatt hour to five to seven cents
6 a kilowatt hour in some of the more recent solicitations.

7 And so it's a very mature industry there, but
8 California conditions are different for a number of
9 reasons. One primary reason being that you're dealing with
10 much deeper water, and so you're dealing with a different
11 technological approach in floating platforms, and that's an
12 approach that stands to benefit from a lot of the
13 innovation that's occurred in Europe and a lot of the price
14 decreases, but it's also not cookie cutter from it.

15 And so there's a lot of optimization that would
16 need to be considered for this newer approach. So it's an
17 interesting technology. It obviously raises a lot of
18 questions. It's got a lot of potential and raises a lot of
19 questions about environmental and community, you know,
20 impacts and responses and interest.

21 There's a -- you know -- we're doing our best to
22 spread the word that this is an issue being considered and
23 looked at. We're doing our best to do quite a bit of
24 outreach to Native American tribes and fishing groups and
25 local environmental groups and local electeds, and just

1 kind of try to get this on the radar screen because it's
2 not a resource that we have paid a whole lot of attention
3 to in California. And so there's a lot of work to be done
4 through this task force.

5 COMMISSIONER HOCHSCHILD: Great. Thank you,
6 Commissioner Douglas, and bear with me on this slightly
7 longer report today. But just to build on those comments,
8 as Commissioner Douglas reference, you know, the prices
9 have fallen from, you know, 30 cents a kilowatt hour down
10 to the lowest price I've seen is six and a half cents,
11 which is Danish Oil and Natural Gas.

12 And the holy grail in getting offshore wind
13 prices down further is actually being able to use
14 standardized equipment that is not just for this one niche.
15 So you can actually make use of tubes, et cetera, that are
16 in production elsewhere, and I think there's a real design
17 push to that effect.

18 And one point I'd make is there are today for
19 offshore wind developers pursuing projects in California,
20 33 separate agencies that have to grant a permit, okay. So
21 this is obviously a totally different kettle of fish than
22 onshore wind, and that may be something the Legislature
23 addresses.

24 We've heard some interest in the Legislature
25 about looking at some sort of way to streamline and

1 consolidate there. A couple other updates. I had a very
2 productive meeting with President Picker last week in the
3 Australia Delegation.

4 Another Australian Delegation came through, very
5 interested in our efforts as a state to electrify services
6 that are not now electrified, and really fruitful exchange
7 there. I also did a visit to the Solar Flats Project. The
8 California Solar Flats Project is the largest solar project
9 currently under construction in the state.

10 It's actually on the old Hearst Ranch property.
11 Half of that is going to PG&E and half of it is going to
12 Apple. It's 280 megawatt for solar, horizontal, single
13 access tracker, and what they're having is some challenges
14 with -- after the permits are being granted -- with
15 projects being held up because of some concern about one
16 thing or the other.

17 So they requested and I agreed to host a meeting
18 with the other agencies on implementation. I've invited
19 Commissioner Douglas to partner on that just to -- the
20 question is, once a project is permitted, underway, what
21 can be done to avoid delays.

22 They've several times had to stop construction
23 for six months to deal with one thing or the other after
24 they've gotten the permit, and that obviously raises cause.
25 So we'll be, you know, looking at what kind of

1 communication coordination can help with that.

2 Had a great discussion with -- at So Cal Gas they
3 hosted a Water Energy Nexus event last week. I spoke at it
4 for just Southern California Water Utilities. I haven't
5 dealt so much with the water issue since I was Commissioner
6 at SFPUC, but my message to those guys is, I think what
7 we're seeing now, the sort of feast or famine era, where we
8 go from drought to floods and maybe locusts are next the
9 way things are going.

10 But it -- really, we have to prepare both for the
11 feast and for the famine, and that means when there's a
12 drought we don't ignore upgrades like Oroville Dam that
13 need to be addressed, and when there's floods we don't slow
14 down at all on conservation efficiency.

15 We have to prepare for both and plan for both. I
16 also want to thank Mike Gravely. While I was down there we
17 did zip out to Fort Irwin, met with Commander Scott, toured
18 -- I've been wanted to see -- that has the largest CPV
19 project in the state is out there.

20 And the army's doing terrific, terrific work,
21 really commendable there and they'll be back out here for
22 the Military Summit in May with the Governor and many
23 others. Did a visit, as well, to the Protera Factory,
24 actually, and I saw the very first battery electric bus
25 being manufactured in California.

1 It's now under construction, massive open factory
2 floor there, and this new bus has a 350 mile range with the
3 ability, actually to do a rooftop cell pack that could get
4 up to about 500 miles. So you know, big step forward in
5 that technology and they just I think raised \$140 million I
6 think, and so they're well capitalized and good to see that
7 begin to scale up.

8 Also did a visit to the L.A. Incubator, which we
9 I think have funded at 5 million or so, and I believe Chair
10 Weisenmiller's going to be speaking there with Ron
11 Nicholson. And they have 300 people making use of the
12 facility, unlike anything else I've seen in the state.

13 They have lab space. So they were testing high
14 efficiency toilets and LED lightbulb designs and they have,
15 you know, a new company doing basically a clearinghouse.
16 So a customer who wanted to buy solar goes to them and then
17 they bid it out.

18 It's like a Kayak.com for solar and any number of
19 other innovations using a great shared space that has an
20 amphitheater, and this is exactly the kind of creative
21 collusions that we want to see happening, and I was just
22 very impressed with their work. So my congratulations to
23 them.

24 Had also a very good meeting with Vernon, City of
25 Vernon Utility. Very interesting utility. They have only

1 80 people live in Vernon. They have 2,000 companies in
2 their district and a totally unique; serve a lot of
3 manufacturers and so on.

4 Not quite clear how the governance works there,
5 if there's only 80 people who vote. So it's just these 80
6 people who are city employees. So there's more to learn
7 there, but had a very good discussion about some of their
8 challenges and it, once again, just highlights how unique
9 many of the POUs are, in fact, totally unique from each
10 other.

11 And then I visited the UC System this week and
12 gave a talk at their symposium. They had a gathering at UC
13 Santa Barbara. All of the UCs, you know, there's a goal
14 basically to get to carbon neutrality for the UC System by
15 2025, and they're very interested in our perspective on
16 that, and talking through some of the challenges.

17 But I just again want to commend their
18 leadership, really remarkable leaders and energy managers
19 at these campuses. Even Davis is doing extraordinary work
20 trying to build on some of the success that Stanford's
21 seen. And then finally, I may be doing a TED Talk next
22 month on renewables, electrification vision, and you know,
23 the progress we're making here in California.

24 One other thing I would just mention. I was in
25 Hawaii for a vacation. I met while I was there with the

1 legislator who did their renewable energy law. And I
2 watched very close because they're the first state to do
3 100 percent renewable energy by 2045, a legislation that
4 passed a year or two ago.

5 And they just went through their IRP process.
6 All of the Hawaiian utilities actually came back with a
7 plan to implement five years ahead of schedule, by 2040.
8 We're seeing really dramatic reductions in storage costs.
9 And it's just interesting.

10 That surprised me because they have no ability to
11 regionalize. Obviously, they can't run a -- they're out
12 there in the middle of nowhere. They can't -- they don't
13 have the benefit that we do of potentially being able to
14 have a broader bouncing area.

15 But great progress there and they are engaging
16 with California. I've invited that legislator out to visit
17 when he's out here next. And I think that's it for me.
18 Just one other thing, I just want to close with this, which
19 is, you know, we just since 10:00 o'clock this morning, I
20 just added up, we just gave away \$25 million, you know.

21 And this is a normal business meeting for us.
22 And so we don't really think of it as remarkable, but there
23 is huge uncertainty out there, not just among research
24 institutions, but among the rest of the clean energy and
25 efficiency industry nationally about what's going to happen

1 with the Department of Energy and our federal priorities.

2 And this is just another example. We are moving
3 forward and putting our foot on the accelerator and I feel
4 good about every single one of these projects we got out
5 the door today, and this is our normal course of business.
6 So once again, I'm just really pleased with the progress
7 we're making and want to thank Rob, you and Drew and your
8 whole team for keeping the trains running. This is what we
9 need.

10 CHAIRMAN WEISENMILLER: Yes, I'll be very brief.
11 I just want to remind everyone again that next Wednesday,
12 we're going to have a memorial event for Art Rosenfeld in
13 this location. So anyway, let's go on from that to Chief
14 Counsel's Report.

15 MS. VACCARO: Nothing today. Thank you.

16 CHAIRMAN WEISENMILLER: Okay. Executive Director
17 Report.

18 MR. OGLESBY: Just a couple of things in line
19 with Commissioner Hochschild's comment about anxiety over
20 research. I participated last week in an Assembly Budget
21 Subcommittee Hearing, along with our partner agencies of
22 the Air Resources Board, the UC Office of the President,
23 the Lawrence Berkeley National Lab and the climate --
24 California Council on Science and Technology, to present on
25 research activities underway for climate and environmental

1 research in California.

2 And the hearing came about as a result of the
3 anxiety that's going around and the uncertainty in the
4 future. And so the Assembly Subcommittee wanted to review
5 the research that we invest as a state in these areas, and
6 so I was the Energy Commission witness on that point.

7 The next day I traveled down to Orange County and
8 made a presentation to the Electric Power Research
9 Institute there, and energy and environment sector group
10 which helps advise EPRI, and these -- this was a good
11 audience to speak to.

12 It was the -- from -- all the nation executives
13 from various utilities were out in California, and I was
14 able to provide a overview of our growth and renewable
15 energy of all types, and also, some of the challenges we're
16 dealing with in terms of over-generation and how we're
17 adapting to that and to get into efficiency, as well.

18 So it was a good audience to hear that and they
19 were very interested in what California's been doing.

20 CHAIRMAN WEISENMILLER: Great. Public Adviser.

21 MS. MATHEWS: Good afternoon. I have three quick
22 things that I wanted to share. The first is that we're
23 going to have our second annual Diversity Career Fair this
24 month, March 30th, here at the Energy Commission. So very
25 excited to invite all interested parties to come so that we

1 can continue to try to reflect the diversity of experience,
2 thoughts and expertise that the State of California has,
3 and that's going to be from 10:00 to 2:00 p.m. -- 10:00
4 a.m. to 2:00 p.m.

5 Also, last month I received in conjunction with
6 the Florin Law Academy a Diversity Champion Award, in part
7 because of the Summer Institute and Law Energy that we
8 host, and that the fact that we are really building the
9 pipeline, starting the build the pipeline in the energy and
10 law sectors.

11 And then the last thing I wanted to share is that
12 last week I had the opportunity to participate in training
13 that I think is really going to help our public
14 participation, enhance it here at the Energy Commission.
15 There were three sessions.

16 One dealt with anger, emotion and outrage, and
17 how to be able to move past that to really help the public
18 participate and give us the feedback that we value here.
19 The second was evaluating and measuring public
20 participation. So I think it's important that we have the
21 public here, but we measure how effective we are in keeping
22 them engaged in what we do.

23 And then last one was designing public engagement
24 with diverse and under-represented stakeholders, and since
25 diversity and reaching out to disadvantaged communities are

1 a priority, and a part of our diversity commitment here at
2 the Commission, I think you'll also benefit. So happy to
3 share that and make it more useful for the work we do here
4 for the Commission.

5 CHAIRMAN WEISENMILLER: Great. Thank you. Any
6 public comment.

7 COMMISSIONER SCOTT: Can I ask Alana a quick
8 question. I think you're number two. You sort of glossed
9 right by the fact that you got an award. Now, that's
10 pretty awesome. Congratulations.

11 MS. MATHEWS: Thank you.

12 CHAIRMAN WEISENMILLER: Okay. So again, public
13 comment?

14 (No audible response.)

15 CHAIRMAN WEISENMILLER: The meeting's adjourned.

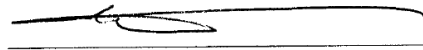
16 (Adjourned at 1:05 p.m.)
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I do hereby certify that the testimony in the foregoing hearing was taken at the time and place then my supervision thereafter transcribed into typewriting.

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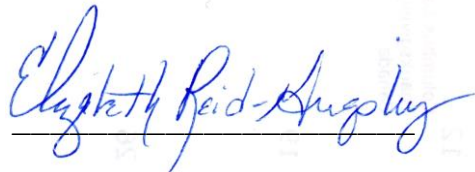
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