

## DOCKETED

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BUSINESS MEETING  
BEFORE THE  
CALIFORNIA ENERGY COMMISSION

In the Matter of:	)	
	)	Docket No. 16-BUSMTG-01
Business Meeting	)	
_____	)	

CALIFORNIA ENERGY COMMISSION  
1516 NINTH STREET  
ART ROSENFELD HEARING ROOM - FIRST FLOOR  
SACRAMENTO, CALIFORNIA

WEDNESDAY, OCTOBER 19, 2016  
10:00 A.M.

Reported by: Rebecca Hudson

A P P E A R A N C E S

Commissioners Present

Robert B. Weisenmiller, Chair

Karen Douglas, Vice Chair

David Hochschild

Andrew McAllister

Janea Scott

Staff Present

Drew Bohan, Assistant Executive Director

Kourtney Vaccaro, Chief Counsel

Cody Goldthrite, Secretariat

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OCTOBER 19, 2016 10:04 a.m.

(The Pledge of Allegiance  
was recited in unison.)

CHAIR WEISENMILLER: Good morning. I'm just going to make one note on the agenda. Item 2 will be held.

So, let's start with the Consent Calendar.

Consent items - I believe Drew has a correction on one of those before we take it up.

MR. OGLESBY: So, Item 1B refers to a conference taking place on November 3<sup>rd</sup> and 4<sup>th</sup>; it's actually the 2<sup>nd</sup> and 3<sup>rd</sup>.

COMMISSIONER DOUGLAS: All right. With that clarification, then I move consent.

COMMISSIONER McALLISTER: Second.

CHAIR WEISENMILLER: All those in favor?

(Ayes.)

CHAIR WEISENMILLER: The Consent Calendar passes five to zero.

As I said, there's no Item 2, so let's go to Item 3.

Staff?

MR. NYBERG: Good morning, Chair. Good morning,



1 Commissioners.

2 My name is Michael Nyberg and I am the program  
3 manager for the Emissions Performance Standard in the Energy  
4 Assessments Division.

5 The Emissions Performance Standard (or EPS) was  
6 established under Senate Bill 1368 by Senator Perata,  
7 Chapter 598 of the 2006 Statutes.

8 The EPS limits long-term investments in baseload  
9 generation by the state's utilities to power plants that  
10 meet an emissions performance standard for carbon dioxide.  
11 The standard was jointly established by the California  
12 Energy Commission and the California Public Utilities  
13 Commission.

14 The CO<sub>2</sub> emission rate is set at 1,100 pounds per  
15 megawatt-hour.

16 On September 21st, 2016, the Los Angeles  
17 Department of Water and Power submitted a compliance filing  
18 requesting a determination that their Second Amendatory  
19 Power Sales Agreement is in compliance with the Greenhouse  
20 Gases Emissions Performance Standard, pursuant to Title 20  
21 of the California Code of Regulations, Section 2900.

22 LADWP is the operating agent for the Intermountain  
23 Power Project, an 1,800-megawatt coal-generating power plant  
24 located near Delta, Utah. Along with LADWP, other  
25 purchasers of IPP's energy include 23 Utah municipalities, 6

1 rural electric cooperatives, and 5 other California  
2 municipalities (Anaheim, Burbank, Glendale, Pasadena, and  
3 Riverside).

4 The original power sales contract was signed on  
5 July 11th, 1980, and expires on June 15th, 2027.

6 The Second Amendatory Power Sales Contract, signed  
7 on March 16th, 2016, allows for the repowering of the  
8 Intermountain Power Project's coal-fired generating units  
9 with up to 1,200 megawatts of EPS-compliant natural gas-  
10 fired combined cycle units by July 1st, 2025. This contract  
11 expires on June 15th, 2077.

12 The Repowering Project will have a pair of 600-  
13 megawatt natural gas-fired power blocks with an expected CO<sub>2</sub>  
14 emission rate of approximately 800 pounds per megawatt-hour.  
15 This will result in the LADWP's complete divestiture of all  
16 coal-based fuel in its generation resources portfolio in  
17 2025, two years earlier than is currently planned.

18 LADWP acknowledges the ability to replace the coal  
19 units earlier than originally planned is contingent upon  
20 several factors, including permitting, material procurement,  
21 and final concurrence of all participants. A subsequent EPS  
22 compliance filing will be necessary if the final design  
23 implementation is significantly different from one of three  
24 options described in this filing.

25 LADWP staff provided vendor specifications for

1 three potential combined cycle designs. The Siting  
2 Division's Engineering Office staff calculated the expected  
3 CO<sub>2</sub> emission rates at various loads using the heat inputs  
4 and associated capacities provided. Staff was able to  
5 duplicate the expected CO<sub>2</sub> emission rates to within zero to  
6 two percent. Table 1 in the backup materials summarizes the  
7 Engineering Office's review of the three proposed combined  
8 cycle designs.

9 Energy Commission staff completed a review of the  
10 filing and determined that the contract is compliant with  
11 the Emissions Performance Standard pursuant to  
12 Section 2902(a); specifically, that the proposed combined  
13 cycle power plant designs in the compliance filing are below  
14 the emissions performance standard limit of 1,100 pounds of  
15 CO<sub>2</sub> per megawatt-hour.

16 Therefore, staff recommends the Energy Commission  
17 find that the covered procurement described in the LADWP  
18 compliance filing complies with the Energy Commission's  
19 Greenhouse Gases Emissions Performance Standard, Title 20,  
20 Section 2900 of the California Code of Regulations.

21 Representatives from the Los Angeles Department of  
22 Water and Power are here to provide additional details on  
23 the project as necessary.

24 Thank you.

25 CHAIR WEISENMILLER: Thank you.

1           Applicant?

2           MR. NEJAD: Good morning. My name is Hamid Nejad.  
3 I'm the Director of Power and Fuel Purchase for the  
4 Department of Water and Power.

5           And I do have --

6           MR. PACKER: My name is Brad Packer and I'm the  
7 Operating Agent for the Intermountain Power Project.

8           MR. NEJAD: And we are very delighted to provide  
9 our comprised filing for IPP Repowering. LADWP is pursuing  
10 a very clean and sustainable energy future, and we believe  
11 this IPP Repowering is an integral part of that strategy.  
12 This -- as Mr. Nyberg mentioned, this IPP Repowering  
13 accelerates coal diversification by two years.

14           It will replace 1,800 megawatts of coal-fired  
15 generation with 1,200 megawatts of gas-fired generation,  
16 but, more importantly, it will allow the transmission  
17 capacity to be released. We do have a capacity of  
18 2,400 megawatts in our transmission system that will allow  
19 another 1,200 megawatts of renewable generation to be used  
20 through the system.

21           We believe this is an important project. It will help  
22 us meet compliance with fifty percent renewable generation  
23 by 2030, and we are very excited to be a part of this  
24 project. In 2015, we provided a Public Notice of  
25 Deliberation to engage in discussion for the renewable power

1 sales contract for IPP Repowering to the Commission, and now  
2 we are delighted to provide our compliance filing and we are  
3 seeking approval so that we can engage and get into the  
4 renewable power sales contract.

5 If there are any questions, we'd be happy to  
6 answer those questions.

7 CHAIR WEISENMILLER: Thank you.

8 Let me first check - is there anyone in the room  
9 who wants to comment on this item?

10 (No audible response.)

11 CHAIR WEISENMILLER: Is there anyone on the phone?

12 (No audible response.)

13 CHAIR WEISENMILLER: Then let's transition.  
14 Commissioner conversation?

15 (No audible response.)

16 CHAIR WEISENMILLER: I mean, obviously, it's a  
17 great step forward to get -- you know, this is one of our  
18 last remaining coal plants and it's a great step forward to  
19 be getting out of it. I think, certainly, you know, it's  
20 going to be an important step going forward, and looking  
21 at -- you know, I tend to look at greenhouse gas emissions  
22 of the utility sector and, if you look at that over, say,  
23 the last ten years, it's been really critical to reduce coal  
24 and, at the same time, to add renewables.

25 So, even as we've dealt with hydro and even as

1 we've dealt with (indiscernible) or other stuff, we've had a  
2 very good trend on greenhouse gas emissions. So, we're  
3 looking forward to completing this.

4 COMMISSIONER McALLISTER: Like you say, it's  
5 really nice to have it coming before the IRP process starts  
6 and kind of have that as a baseline.

7 CHAIR WEISENMILLER: Yeah. Yeah.

8 Any questions or comments?

9 (No audible response.)

10 CHAIR WEISENMILLER: The motion?

11 COMMISSIONER McALLISTER: All right. I'll move  
12 Item 3.

13 COMMISSIONER DOUGLAS: Second.

14 CHAIR WEISENMILLER: All those in favor?

15 (Ayes.)

16 CHAIR WEISENMILLER: This passed five to zero.

17 Thank you.

18 MR. NEJAD: Thank you.

19 CHAIR WEISENMILLER: And, again, good luck going  
20 forward.

21 Let's go on to Item number 4, possible approval of  
22 the California Advanced Lighting Controls Training Program's  
23 proposed 2016 updates.

24 MS. MARTINEZ: Good morning, Chair and  
25 Commissioners. My name is Veronica Martinez, from the

1 Existing Buildings and Compliance Office in the Efficiency  
2 Division.

3 I am here to present for your consideration the  
4 possible approval of updates that the California Advanced  
5 Lighting Controls Training Program made to its approved  
6 acceptance test technician certification provider  
7 application. CALCTP made these application updates to  
8 prepare for the 2016 Building Energy Efficiency Standards,  
9 which go into effect January 1, 2017.

10 A lighting controls acceptance test is a set of  
11 functional tests that ensures nonresidential lighting  
12 controls work as designed after they are installed.

13 The Energy Commission's 2005 Building Energy  
14 Efficiency Standards adopted requirements that commercial  
15 lighting installers perform acceptance testing on newly  
16 installed lighting controls.

17 The 2013 Building Energy Efficiency Standards  
18 established new requirements to allow organizations to apply  
19 to become an ATTCP to train, certify, and provide oversight  
20 for the acceptance test technicians that perform the  
21 lighting controls acceptance tests, as well as the  
22 acceptance test employers that employ those technicians.

23 The regulations require that ATTCPs report to the  
24 Energy Commission what adjustments have been made to their  
25 training curricula to address changes to acceptance testing

1 requirements in the 2016 Building Energy Efficiency  
2 Standards. This is referred to as the 2016 update report.

3 The new and modified lighting controls acceptance  
4 testing requirements codified in the 2016 Building Energy  
5 Efficiency Standards were mostly nonsubstantive, with the  
6 exception of a new acceptance test for the institutional  
7 tuning power adjustment factor.

8 CALCTP was approved by the Energy Commission as a  
9 nonresidential lighting controls ATTCP on November 12, 2014.

10 CALCTP first submitted a complete 2016 update  
11 report on March 28, 2016, and submitted a revised report on  
12 July 14<sup>th</sup> in response to feedback from Energy Commission  
13 staff.

14 In its 2016 update report, CALCTP proposes the  
15 following substantive updates to its approved application:

16 2016 certification training curricula  
17 adjustments that include theoretical and hands-on  
18 training components for acceptance test  
19 technicians on the new institutional tuning power  
20 adjustment factor acceptance test; and

21 Online 2016 recertification training for  
22 existing acceptance test technicians and  
23 employers, which includes the same theoretical and  
24 hands-on training on the new acceptance test as  
25 will be used in the 2016 certification course for



1 technicians.

2 The details of CALCTP's proposed substantive  
3 updates, along with the nonsubstantive updates, are provided  
4 in the Staff Report, which is posted online and included in  
5 the backup materials for this agenda item.

6 Energy Commission staff, working with CALCTP,  
7 completed a review and validation of CALCTP's 2016 update  
8 report and found the proposed training curricula adjustments  
9 and other application amendments meet the requirements for  
10 ATTCPs in the 2016 Building Energy Efficiency Standards.

11 Energy Commission staff has documented its review  
12 and findings in the Staff Report, which was posted on the  
13 Energy Commission's ATTCP webpage and made available for  
14 public comment on September 16, 2016.

15 The public comment period for the Staff Report  
16 ended September 30<sup>th</sup>, and there were no public comments.

17 Staff recommends that the Energy Commission  
18 confirm the Executive Director's findings, adopt his  
19 recommendation, and approve CALCTP's 2016 updates. These  
20 actions will allow CALCTP to administer its proposed  
21 training curricula adjustments and program changes for the  
22 2016 Building Energy Efficiency Standards.

23 Thank you for your consideration. I am available  
24 to answer any questions.

25 CHAIR WEISENMILLER: Thank you.

1           Applicant?

2           MR. ENSLOW: Good morning. Tom Enslow, on behalf  
3 of the California Advanced Lighting Controls Training  
4 Program. I'm here today with Cori Jackson. She's the  
5 Program Director for the California Lighting Technology  
6 Center at UC Davis.

7           Cory was engaged to update the CALCTP Acceptance  
8 Test curriculum to meet the 2016 code requirements and is  
9 available to answer specific questions you may have about  
10 that. And I believe that Mark Ouellette, the Program  
11 Administrator for CALCTP, is on the phone as well.

12           First, I'd like to thank staff for the time they  
13 spent reviewing and helping us finalize the 2016 update.  
14 It's always a pleasure to work with them.

15           Second, as we move into the 2016 code cycle, I'd  
16 like to urge the Commission to focus more on enforcement of  
17 the acceptance test regulation requirements. In many ways,  
18 the acceptance test certification program has been a great  
19 success.

20           CALCTP has now certified over 1,435 acceptance  
21 test technicians and over 462 employers across the state.  
22 In the past twelve months alone, CALCTP certified  
23 technicians have performed acceptance tests in over four  
24 thousand projects.

25           However, enforcement is still lacking in many

1 parts of the state. For example, we've been told, there's  
2 almost no compliance in Mono and Inyo Counties. As of  
3 September, CALCTP only had one record of one project between  
4 both those counties; yet, we hear from our contractors that  
5 in Bishop alone there were six new stores built without  
6 using any certified acceptance testers. And we have  
7 acceptance testers in those areas who put time and resources  
8 into getting certified but aren't getting any work.

9           And this is going to be a potential problem as we  
10 try to recertify everyone from the 2016 code. And the  
11 construction industry has put a lot of time and money into  
12 getting employers certified, but if the Commission doesn't  
13 enforce these requirements, it's going to be hard to  
14 continue to convince them to recertify and maintain their  
15 certifications.

16           The newest update, for example, requires  
17 additional training for each technician. Because there are  
18 minor changes, we're able to do it online to help, I think,  
19 ease this year, but in future years to maybe hands-on  
20 training that will be required, as well.

21           So, as we move to the 2016 code cycle, I think you  
22 can be confident. This so far has been a success, but  
23 there's more that needs to be done as far as enforcement at  
24 the local level.

25           Thank you.

1 CHAIR WEISENMILLER: Is there any comment on this  
2 item from anyone in the room?

3 (No audible response.)

4 CHAIR WEISENMILLER: Anyone on the telephone?

5 (No audible response.)

6 CHAIR WEISENMILLER: Okay. So, let's --  
7 actually -- I guess, actually, we had the one from Cori. Do  
8 you want to say anything?

9 MS. JACKSON: Hi, welcome. Thank you.

10 I just wanted to say that I'm here for any  
11 technical questions regarding the curriculum itself. My  
12 engineering team was -- we partnered with CALCTP over the  
13 last several years to update and maintain that curriculum,  
14 so I'm here if there is any technical questions.

15 CHAIR WEISENMILLER: Okay. Thank you.

16 MS. JACKSON: Mm-hmm.

17 CHAIR WEISENMILLER: I just want to make sure  
18 we -- so, let's transition to the Commissioners.

19 I guess I was going to start out with just the  
20 basic question of, obviously, enforcement is important to us  
21 and trying to at least start the dialogue between you and  
22 the Commission and the executive director on how to step up  
23 enforcement.

24 MR. ENSLOW: Yes, and --

25 CHAIR WEISENMILLER: And identifying the areas

1 where there are problems is at least a good start.

2 MR. ENSLOW: And we have been working with staff.  
3 We refer to specific instances where we contacted staff and  
4 they've been following up to the extent possible. I know  
5 they have limited resources and some of it, I think, is just  
6 education at the local level. I mean, this is not just an  
7 acceptance test issue, it's a Title 24, you know, Energy,  
8 you know, Code issue.

9 I think we're only now getting to where local  
10 jurisdictions are enforcing the Title 24 energy requirements  
11 at all and I think there's still resistance in some areas of  
12 the state. So, just, again, a continued need to focus on  
13 that area so that all the requirements in Title 24 are being  
14 enforced.

15 COMMISSIONER McALLISTER: Yeah, I would actually  
16 second that, really. I mean, it was very much a local issue  
17 here and, you know, we're trying -- we're making some  
18 advances in getting locals a few more resources --  
19 innovative locals and some of the sort of small  
20 jurisdictions.

21 You know, there's a plan now that got a little  
22 funding to go promote and encourage some of those local  
23 jurisdictions to sort of get more on it in terms of  
24 enforcement. And, also, things that dovetail well with  
25 that, like benchmarking and things like that where, at the

1 local level, really they -- the influence and the vision  
2 that they provide is critical, right? Because it's a big  
3 state and local jurisdictions are so diverse.

4 But I certainly -- yeah, I very much appreciate  
5 all the conversations we've had over the 2013-2016 code  
6 about how to make this work, you know, fully and as well as  
7 it can work.

8 And I want to just congratulate you on getting up  
9 to the 2016 and you probably know that, you know, staff is  
10 already sort of cranking out the calcs and working on the  
11 2019 Code update. You know, there are, like, three  
12 different systems overlapping at once.

13 You know, we have thirteen actively, you know,  
14 being applied right now, sixteen comes up in effective  
15 date -- the effective date of January 1<sup>st</sup>. And then, 2019,  
16 obviously, we've got to get that across the finish line in  
17 the next, you know, year, year and a half.

18 So, I think there's really a very much an  
19 appreciation on the trajectory. You know, not any given --  
20 any particular moment in time and having it, you know,  
21 expecting all of this to be perfect, but really having a  
22 view of where we are going and how we can make sure to shore  
23 up as we go along. And then, make sure the transition to  
24 where we need to go works well and smoothly.

25 I would -- so, I absolutely hear you on some of

1 the sort of the -- you know, the laggards in terms of, you  
2 know, enforcement being an issue with them, but I'd also --  
3 I was recently on a panel about, you know, superefficient  
4 buildings and zero net commercial, and there was a guy on  
5 the panel that is doing incredible work, very, very leading  
6 work, very -- you know, tilt-up, low-res commercial.

7 And, you know, he didn't really seem to know about  
8 the ATTs. Now, he's gone way beyond code, you know? But  
9 it's sort of like -- and I have a lot of confidence that  
10 he's doing great projects and he's getting tenants that he  
11 can charge more for.

12 I mean, he's doing all the things we want to be  
13 done, but I'm not sure that, even -- you know, at the high  
14 end, either, it's necessarily -- you know, they're thinking  
15 outside the box and ATTs are sort of part of the box. You  
16 know, so I feel like we need to do outreach up and down the  
17 food chain, but it's a great opportunity to leverage those  
18 high-end projects to show the value, as well.

19 So, anyway, thanks a lot, and I'm obviously very  
20 supportive of this item.

21 COMMISSIONER DOUGLAS: I'll just step in and also  
22 voice my support for your comments and Commissioner  
23 McAllister's and the chair's, and I think that we're  
24 definitely interested in having the conversation that you  
25 mentioned.

1 Do you want to make a motion?

2 COMMISSIONER McALLISTER: Okay. Yeah, I'll move  
3 Item 4.

4 COMMISSIONER DOUGLAS: Second.

5 CHAIR WEISENMILLER: All those in favor?

6 (Ayes.)

7 CHAIR WEISENMILLER: Item 4 passed unanimously.

8 Thank you.

9 MR. ENSLOW: Thank you.

10 CHAIR WEISENMILLER: Let's go on to Item 5.

11 MS. CHAN: Good morning, Chairman and  
12 Commissioners. I am Suzie Chan of the Existing Building and  
13 Compliance Office in the Efficiency Division.

14 I am here to request the Energy Commission  
15 approval of CalCERTS as a HERS Provider to oversee HERS  
16 Raters conducting field verification and diagnostic testing  
17 to verify compliance with the requirements of the 2016  
18 Building Energy Efficiency Standards and CalCERTS HERS Data  
19 Registry as a residential data registry as required by the  
20 2016 Standards.

21 Staff has reviewed the CalCERTS application  
22 including its training materials, certification programs,  
23 and quality assurance, and concluded that it meets all the  
24 requirements of the 2016 Standards and the HERS Regulations.  
25 Staff have also tested the CalCERTS HERS Data Registry and



1 found that it meets compliance with all the requirements in  
2 Section 10-109 (i) and Joint Reference Appendix JA7 of the  
3 2016 Standards.

4 Based on this information, staff asks for you to  
5 confirm the Executive Director's findings and adopt his  
6 recommendations to certify CalCERTS as a HERS Provider for  
7 field verification and diagnostic testing as required by the  
8 2016 Standards, and certify the CalCERTS HERS data registry  
9 as a residential data registry as required by the 2016  
10 Standards.

11 The approval of CalCERTS as a HERS Provider will  
12 satisfy the requirements of Title 24, Part 6, where HERS  
13 field verification and diagnostic testing is required for  
14 compliance with the 2016 Standards, which will go into  
15 effect January 1<sup>st</sup>, 2017.

16 The Efficiency Lead Commissioner has reviewed this  
17 item.

18 Thank you. I am available for any questions, and  
19 staff from CalCERTS is also available to answer any  
20 questions.

21 CHAIR WEISENMILLER: Applicant?

22 MR. BACHAND: Hi. I'm Charlie Bachand, from  
23 CalCERTS. Thank you for having us here today.

24 I'd like to mention that I believe that this will  
25 be a much easier transition from the 2013 to the 2016 code

1 than the previous transition, and I think that along the way  
2 we've achieved a goal of making fewer obstacles for  
3 compliance in the industry. And in large part, this is due  
4 to the efforts of your staff and I'd like to extend my  
5 thanks to them. The Building Standards Office, the Codes  
6 and Enforcement Office, Outreach and Education, Solar -  
7 they've all been very approachable, professional, they set a  
8 high bar for us and for the industry, and we appreciate  
9 that.

10 We look forward to supporting the new standards  
11 and the HERS industry as a whole in 2016.

12 Thank you.

13 CHAIR WEISENMILLER: Thank you. Thanks for being  
14 here.

15 Does anyone in the room or on the line have  
16 comments?

17 (No audible response.)

18 CHAIR WEISENMILLER: Okay. So, let's transition  
19 to the Commissioners.

20 Commissioner?

21 COMMISSIONER McALLISTER: So, this is a -- so, I  
22 agree with Charlie - with your assessment of there being  
23 fewer barriers and obstacles in the transition. You know,  
24 2013 to 2016 was a big slog. I mean, for everybody. And it  
25 was a big lift and it was something that I think everybody

1 appreciated was going to be a big lift.

2           So -- and, you know, you were -- you all were very  
3 game in sort of working through all the newness of it  
4 because, really, it was a shift in a lot of different ways.  
5 So, now that we've got that foundation, I'm pretty confident  
6 that, from here on out, it's going to be more incremental  
7 and less fundamental change and that's just going to be good  
8 for everybody.

9           So, I really appreciate your all being leaders in  
10 this space and very happy to have, you know, the final few  
11 pieces, really, of the 2016 ecosystem coming into play  
12 through application on January 1, because it's -- I think  
13 everybody acknowledges that it's -- that we're there, you  
14 know? So -- and you're a big part of that, so thanks very  
15 much for all your efforts.

16           MR. BACHAND: Thank you.

17           COMMISSIONER McALLISTER: So, I'm obviously very  
18 supportive of this item. If anybody (laughter) has any  
19 other comments?

20           (No audible response.)

21           COMMISSIONER McALLISTER: Okay. Great. So, I'll  
22 move Item 5.

23           COMMISSIONER DOUGLAS: Second.

24           CHAIR WEISENMILLER: All those in favor?

25           (Ayes.)

1 CHAIR WEISENMILLER: Item 5 passes five to zero.  
2 Thank you.

3 Let's go on to Item 6.

4 MS. RUDMAN: Ready? (Laughter.) Okay.

5 Good morning, Commissioners. My name is Monica  
6 Rudman and I work in the Local Assistance and Financing  
7 Office of the Efficiency Division.

8 I'm here to ask your approval of an amendment to  
9 Lamont Public Utility District's ECAA Loan Agreement  
10 number 005-15-ECD to augment the loan by \$320,000.

11 Lamont Public Utility District (the District) is  
12 located in the southern end of San Joaquin Valley in Kern  
13 County, California. Its primary purpose is to serve  
14 water -- to supply water.

15 It operates seven water wells located throughout  
16 the District. In addition, the District operates a primary-  
17 level wastewater treatment plant. According to  
18 CalEnviroScreen 2.0, census tracts in the District service  
19 area have disadvantaged populations that are  
20 disproportionately burdened by multiple sources of  
21 pollution.

22 In December of 2015, the Energy Commission  
23 approved an approximately \$2.6 million ECAA loan with the  
24 District to install a one-megawatt PV system located at the  
25 wastewater treatment plant site.

1           The District was very appreciative of this loan,  
2     since otherwise it would not have been able to pay for the  
3     PV system.

4           The PV system is going to be a ground-mounted  
5     tracking system. While it is built to serve as one array,  
6     the system is designed to offset the wastewater treatment  
7     plant's energy use, as well as virtually offset the wells'  
8     and booster pumps' energy costs.

9           Since approval of the loan, the District has been  
10    making progress with the solar PV project. In January of  
11    2016, it signed a contract for about \$2.7 million with  
12    Borrego Solar.

13          Milestones include developing final plans,  
14    obtaining permits, and obtaining utility interconnection  
15    approval and installing the system.

16          So far, the District's installation contractor has  
17    completed its set of permit plans and delivered the systems  
18    support structures, modules, and inverters.

19          Construction is pending receipt of required  
20    permits. To date, the District has incurred approximately  
21    \$1.642 million in project-related costs.

22          Now the District is requesting an additional  
23    \$320,000. These funds will be used to pay for costs  
24    associated with the change in the project scope and for  
25    costs associated with the electric utility interconnection.

1           The District signed a contract that was higher  
2 than the approved ECAA loan amount because Borrego Solar  
3 needed to alter the PV system's preliminary design to  
4 mitigate impacts to biological resources. This required the  
5 following changes:

6           The system will now use higher-efficiency  
7 modules to get the same production in a revised  
8 space and a transformer for a longer AC run.

9           Required changes also include additional site  
10 grading and a longer trenching run.

11           These changes represent about \$120,000 of  
12 additional funds requested. Further, the scope of the  
13 project has changed in another way. Rather than using their  
14 own funds to pay for costs associating -- associated with  
15 interconnection to the District's electric utility provider,  
16 the District would like to use ECAA loan funds.

17           Interconnection may involve acquiring a net energy  
18 meter, adding new service, installing disconnect switches,  
19 installing a SCADA controlled recloser, and installing or  
20 upgrading transformers and cables.

21           While the scope and division of the  
22 responsibilities of the interconnection will be defined by  
23 the utility, as the PV system owner, the District is  
24 responsible for the costs.

25           In order to cover potential interconnection costs

1 and allowance for contingencies, the District is requesting  
2 an additional \$200,000. The final cost to the District will  
3 be based on the actual design, procurement, and construction  
4 expenses incurred.

5           The Energy Commission disburses loan funds based  
6 on invoices paid. So, the Energy Commission is not at risk  
7 for paying costs that don't materialize. Only approved  
8 project-related costs supported by invoices that are  
9 incurred within the term of the executed agreement are  
10 eligible for reimbursement under the ECAA loan program.

11           The ECAA loan program allows for loan awards up to  
12 \$3 million per applicant and requires repayment of the loan,  
13 both interest and principal, within twenty years. This is  
14 equivalent to projects having a simple payback of seventeen  
15 years or less.

16           Augmenting the loan by \$320,000 will increase the  
17 loan amount from \$2,580,767 to \$2,900,767, and this will  
18 increase the simple payback period from 9.5 years to  
19 10.7 years.

20           This augmentation meets the payback requirements  
21 of the ECAA loan program. I ask for your approval of this  
22 amendment and, if you have any questions, I'll be happy to  
23 answer them.

24           Thank you.

25           CHAIR WEISENMILLER: Thank you.

1 First, any comments from anyone in the room or  
2 anyone on the line?

3 (No audible response.)

4 CHAIR WEISENMILLER: Okay. Then, let's go to the  
5 Commissioners.

6 COMMISSIONER McALLISTER: So, I -- it seems to  
7 check all the boxes on the (laughter) -- on the ECAA  
8 evaluation, so -- and it's a fairly modest change, so I'm in  
9 support of it. I won't go into my flag-waving for the ECAA  
10 program because we all know how wonderful it is. So,  
11 thanks.

12 (Laughter.)

13 COMMISSIONER McALLISTER: Thanks, Monica.

14 Anybody else?

15 (No audible response.)

16 COMMISSIONER McALLISTER: Okay. Yeah, so I'll  
17 move Item 6.

18 COMMISSIONER SCOTT: Second.

19 CHAIR WEISENMILLER: All those in favor?

20 (Ayes.)

21 CHAIR WEISENMILLER: Item 6 passes five to zero.  
22 Thank you. Thank you.

23 Let's go on to Item 7, Silicon Valley Clean Water.

24 MR. WEIGHTMAN: Good morning, Commissioners,  
25 Director, and attendees. My name is David Weightman and I



1 am an Energy Generation System Specialist with the Research  
2 Division's Energy Efficiency Research Office in the  
3 Industrial Ag and Water Program.

4 The agreement with Silicon Valley Clean Water for  
5 which I am seeking your approval today is a request for a  
6 \$1.996 million grant supported by \$1.2 million in matching  
7 funds to conduct a demonstration scale project to evaluate  
8 the effectiveness of an innovative Staged Anaerobic  
9 Fluidized Bed Membrane Bioreactor to treat wastewater.

10 This project will test use of the system as a core  
11 technology in wastewater treatment trains, which are  
12 sequential processes that will, at the end of the pipe,  
13 recover clean water and yield biogas that can be used for  
14 energy production. The demonstration will take place at a  
15 wastewater treatment facility in Redwood City, California.

16 While anaerobic treatment is well-established for  
17 stabilization of organic solids and for secondary treatment  
18 of wastewater in warm climates, its use for secondary  
19 treatment in temperate climates is new.

20 This innovative system will save energy by  
21 eliminating aeration, which is a high-energy demand process  
22 that is typically used in conventional wastewater treatment.  
23 Conventional wastewater treatment uses approximately .53  
24 kilowatt-hours per cubic meter versus the .36 kilowatt-hours  
25 per cubic meter of projected energy use of this new

1 technology in the demonstration project.

2           The project team believes that wastewater  
3 treatment featuring this system will achieve ten percent  
4 savings in operational and maintenance costs over existing  
5 processes. They also estimate that the amount of biosolids  
6 generation associated with typical secondary wastewater  
7 treatment will be reduced by an estimated thirty percent.  
8 This will reduce the costs associated with offsite biosolids  
9 transport and disposal.

10           Wastewater facilities in Korea, Singapore, and  
11 Taiwan have demonstrated energy savings using this  
12 technology, but the technology has not been fully tested or  
13 adopted yet in the United States. I also note that testing  
14 in Korea has shown that the system can produce water that is  
15 equal to or superior in quality to that of conventional  
16 wastewater treatment systems that use aeration - even at low  
17 temperatures.

18           As part of this project, wastewater treated by  
19 this anaerobic system will be undergoing Reverse Osmosis  
20 membrane filtration followed by disinfection. The quality  
21 of this water from these treatment steps in this  
22 demonstration will be compared to the water quality of  
23 existing processes used in California that produce water for  
24 non-potable reuse and potable reuse.

25           The project has generated a huge amount of

1 interest and many letters of support in the proposal from  
2 prominent water and energy organizations. Examples include:  
3 Pacific Gas and Electric, WaterReuse California, the  
4 Association of California Water Agencies, the California  
5 Sanitation Agencies, and Santa Clara Valley Water District,  
6 and, last, the US EPA Region 9.

7 I am here to answer any question that you may  
8 have. Thank you.

9 CHAIR WEISENMILLER: Thank you.

10 First, let's see if there are any comments of  
11 anyone in the room?

12 (No audible response.)

13 CHAIR WEISENMILLER: I think we have one commenter  
14 on the line.

15 Mr. Hansen, please?

16 MR. HANSEN: Yes. My name is Eric Hansen and I'm  
17 the Project Manager for this proposal and I am available to  
18 answer any questions the Commissioners may have.

19 CHAIR WEISENMILLER: Okay. Thank you.

20 So, let's transition over to the Commissioners.

21 Again, as the Lead on R&D, obviously, energy is --  
22 the energy/water nexus is an important topic. This is  
23 certainly one which has a lot of interesting aspects and I  
24 think we're at a stage where we're basically, I think,  
25 trying to look at our wastewater treatment plants.

1           A lot of them have -- I'm going to say relatively  
2 older technologies, and figuring out ways to better them is  
3 good. So, we're certainly very interested in seeing the  
4 result -- hearing the results of this product -- this  
5 project at the end.

6           Any -- Commissioner?

7           COMMISSIONER DOUGLAS: You know, I'll just briefly  
8 say that I agree. This looks like a really valuable  
9 opportunity and I'm pleased to move approval for this item.

10          CHAIR WEISENMILLER: Okay.

11          COMMISSIONER SCOTT: Second.

12          CHAIR WEISENMILLER: All those in favor?

13          (Ayes.)

14          CHAIR WEISENMILLER: This item passes five to  
15 zero.

16          Let's go onto Item number 8, Hyperlight Energy.

17          MR. ALDAS: Good morning, Commissioners. My name  
18 is Rizaldo Aldas. I'm with the Energy Generation Research  
19 Office, Energy Research and Development Division. I am here  
20 to seek your approval to this grant agreement with  
21 Hyperlight Energy.

22          The proposed \$750,000 grant to Hyperlight Energy  
23 will leverage federal funding into California by way of  
24 (indiscernible) funding to its \$1.5 million grant from the  
25 US Department of Energy. It will also complement the

1 technological advances that we have made in past projects  
2 that the Energy Commission funded with Hyperlight Energy.

3 The goal of this agreement is to develop a  
4 disruptively low-cost Concentrated Solar Power collector and  
5 advance that technology in terms of its market readiness for  
6 commercial application.

7 The Hyperlight Energy's CSP collector system is  
8 based on the linear Fresnel reflector system, which, as you  
9 may know, uses long, flat mirrors that reflect the sunlight  
10 to a receiver.

11 Hyperlight is able to make a dramatic reduction in  
12 cost by way of breakthroughs in materials, design,  
13 manufacturing, and installation. For instance, the  
14 reflective mirror is on UV-stabilized plastic extrusions,  
15 which are low-cost.

16 These plastic tubes are mounted on a sealed water  
17 bed foundation, which is a breakthrough in itself because it  
18 not only provides flat and essentially frictionless support  
19 to the plastic tube, but also it's able to eliminate an  
20 expensive concrete and steel foundation.

21 So, the grant that the Energy Commission will  
22 provide to Hyperlight will support three stages of the  
23 project:

24 One is developing a small-scale system in  
25 San Diego. It's a 1,000-square-foot module that

1 will support lifecycle studies and validation of  
2 upgraded components.

3 The second is expanding its existing solar  
4 thermal facility into one acre for pilot testing  
5 and demonstration in Brawley, California, which is  
6 a disadvantaged community.

7 And third is conducting paper studies --  
8 actually, a front-end engineering study to  
9 establish the feasibility and what is needed to  
10 scale the system up to, say, ten acres and  
11 co-located with renewable energy, such as a  
12 geothermal facility.

13 So, with that, I request your approval. I'm ready  
14 to answer and I believe John King from Hyperlight is also on  
15 the line to answer any questions you may have.

16 Thank you.

17 CHAIR WEISENMILLER: Great. Thank you.

18 Let's start with -- is there anyone in the room  
19 with any comments on this?

20 (No audible response.)

21 CHAIR WEISENMILLER: Okay. Let's transition to  
22 the gentleman from Hyperlight on the line.

23 Mr. King?

24 MR. KING: Hello. Yes, I'm here. Can I -- I  
25 don't know if I'm -- can the Commission hear me?

1 CHAIR WEISENMILLER: Yes, we can.

2 MR. KING: Hello?

3 CHAIR WEISENMILLER: Yes, we can hear you.

4 MR. KING: I just wanted to say that --

5 CHAIR WEISENMILLER: Yeah, just go ahead.

6 MR. KING: Okay. I just wanted to say thanks to  
7 the Commission for your resolute and determined support of  
8 renewable energy R&D. And the past projects you supported  
9 have allowed this to bring in matched funding not just from  
10 the DOE this time, but the one past project mentioned  
11 brought in matched funding from Southern California Gas, as  
12 well.

13 And I just see the Commission as leaders in this  
14 area and I just wanted to express my thanks and, hopefully,  
15 that the -- you know, this will pass today. And I look  
16 forward to deployment of this technology in the state at  
17 large scale.

18 So, thank you very much.

19 CHAIR WEISENMILLER: Thank you.

20 Commissioners, I'm the Lead on R&D and, in fact,  
21 actually was at the -- what's the -- the dedication of the  
22 Hyperlight facility down in Brawley and, indeed, it is a  
23 disadvantaged community. Pretty exciting technology that we  
24 had developed with Sempra. Obviously, we looked a lot at  
25 solar for -- photovoltaics for electricity production.

1           This is a much more thermal applications and this  
2 is, I think, one of the -- one of our -- if not the first,  
3 one of the first projects where we basically got it going  
4 with SoCal and now they've gotten federal funds to take it  
5 to the next stage, and we'll provide a match.

6           So, again, it's pretty exciting to see the  
7 progress here and certainly will encourage us going forward.

8           COMMISSIONER SCOTT: It's really nice to be able  
9 to leverage our dollars this way.

10          CHAIR WEISENMILLER: Yeah.

11          COMMISSIONER SCOTT: I will move approval of  
12 Item 8.

13          COMMISSIONER McALLISTER: I'll second.

14          CHAIR WEISENMILLER: All those in favor?

15          (Ayes.)

16          CHAIR WEISENMILLER: So, this passes five to zero.  
17 Thank you.

18          MR. ALDAS: Thank you.

19          CHAIR WEISENMILLER: Let's go on to Item 9,  
20 legislative update.

21          Barry?

22          MR. STEINHART: Good morning, Chair and  
23 Commissioners. I am Barry Steinhart of the Office of  
24 Governmental Affairs. Thank you very much for the  
25 opportunity to present this, I believe, first ever -



1 certainly my first ever - legislative update of the recent  
2 legislative session.

3 Next slide, please.

4 The Legislature is now in final recess for the  
5 2015-2016 regular session and, on September 30<sup>th</sup>, the  
6 governor completed his process of reviewing and signing  
7 bills. So, this is an appropriate time to take stock and  
8 review some of the many bills intended to help California  
9 continue on the path to a clean energy future.

10 Over the course of the two-year session, the  
11 Office of Governmental Affairs tracked over 270 bills. I  
12 will of necessity be focusing on signed legislation in  
13 several subject areas that directly impacts the Commission,  
14 but I'll also be mentioning some bills with policy  
15 implications that frame our work here.

16 Next slide, please. Next slide.

17 We'll take a quick look at the issues I'll be  
18 covering here. The Aliso Canyon leak was predictably the  
19 source of several bills, both directly related to the leak,  
20 but also looking longer term at natural gas safety, storage,  
21 and usage in the state.

22 Grid regionalization was on the administration  
23 agenda for this year and I'll take a moment here to discuss  
24 that in a bit greater length, because the governor's office  
25 and legislative staff have been hosting an ongoing

1 stakeholder working group with Energy Commission  
2 participation to discuss the many issues involved with this  
3 topic.

4 In fact, one of those working groups is occurring  
5 right now as we speak here. The Commission has hosted or  
6 participated in at least five workshops on this topic as  
7 recently as Monday of this week.

8 But, in August, the governor wrote to the  
9 legislative leaders that, while very significant progress  
10 has been made, there remains some important unresolved  
11 questions that would be difficult to answer in the remainder  
12 of this legislative session.

13 So, stakeholder discussions are continuing and the  
14 administration is targeting early next year for the  
15 introduction of legislation.

16 Renewable power. Production and integration  
17 continue to attract legislative interest, especially  
18 following the higher RPS goals set in SB 350 last year.

19 Agreement was reached this year to spend some of  
20 the Greenhouse Gas Reduction Fund money.

21 Several bills address Energy Commission  
22 conservation and economic assistance programs.

23 And, finally, landmark legislation advanced the  
24 state's climate goals, while adding more legislative  
25 oversight to the process.

1           Next slide.

2           I'll begin with a review of the Budget Act and  
3 trailer bills.

4           Next slide.

5           In the main budget bill, we were successful in a  
6 two-year effort to obtain an appropriation of \$8 million in  
7 otherwise stranded American Reinvestment and Recovery Act  
8 funds that were loan repayment funds that were pooling, and  
9 we'll be able to use those for efficiency projects.

10          The main budget bill also appropriated  
11 \$2.5 million for a report ordered by the governor in his  
12 Aliso Canyon emergency order to look at the long-term  
13 viability of natural gas storage in the state, and the  
14 Energy Commission will consult on that report.

15          Then, AB 1623, often called budget bill junior,  
16 later in the year augmented the ARRA fund appropriation from  
17 \$8 million to \$13.5 million, when additional funds were  
18 identified as available for that purpose.

19          Next slide.

20          As always, budget trailer bills, as listed here,  
21 contain significant policy and program elements, and I'll  
22 discuss each individually.

23          Next slide.

24          So, SB 839 is the first of many bills with  
25 elements resulting from Aliso Canyon and the spotlight it

1 shined on natural gas usage in this state. SB 839 has a  
2 provision relevant to the Energy Commission requiring us to  
3 report to the Legislature by September 15, 2017, on the  
4 resources needed to develop a plan for tracking the state's  
5 natural gas supply.

6 And this will also include tracking both  
7 unintentional fugitive emissions and intentionally vented  
8 emissions. So, the report we produce is also to include our  
9 recommendations for developing a plan that is cost-effective  
10 and feasible.

11 Next, SB 840 has several provisions we were happy  
12 to see appear in print. In the wake of the CPUC decision  
13 granting us -- granting the continuation of the New Solar  
14 Homes Program and awarding us the financial administration  
15 of that program, this bill contains the statutory authority  
16 needed for us to receive the funds and administer the  
17 program in that way, so we're very happy about that result.

18 SB 840 also adds money for staff to continue our  
19 Appliance Energy Efficiency Enforcement efforts. It ends an  
20 obsolete annual transfer from the PEER fund of \$10 million  
21 to the ARFVTP as the PEER program winds down. And it also  
22 adds an important protection to our ability to obtain  
23 electronically-transmitted energy and water use data.

24 And I'll just pause here to say that language was  
25 necessary because, in 2015, Senator Leno authored the

1 Electronic Communications Privacy Act. So, the simplest  
2 example of the protection is, to protect the information on  
3 your Smartphone, law enforcement will now be required to  
4 seek a warrant before accessing that information, much as  
5 they have long been required to seek a warrant before  
6 searching your home.

7 But it was identified that that might be used as a  
8 possible impediment to our obtaining electronic energy use  
9 data. So, Senator Leno agreed to clean up language and it  
10 appeared for the first time in SB 840, one of the trailer  
11 bills.

12 But that language will be important as other bills  
13 contain advanced privacy protections for electronic  
14 communications. And then, that's -- an example of that  
15 language appearing is in Senator Leno's own SB 1121, which  
16 contains the same language protecting our ability to get  
17 that data.

18 Next slide. Next slide.

19 Turning to the Assembly trailer bills, Assembly  
20 Bill 1637 significantly both extended and expanded the net  
21 energy metering program. It extends it to 2021 and it  
22 increases the cap from one to five megawatts. It also  
23 doubles the fund -- the budget for the Self-Generation  
24 Incentive Program from \$83 million to \$166 million, and  
25 requires the ARB to consult with us on the adoption of

1 Greenhouse Gas Emission Standards for fuel cells.

2 AB 1924, by Assembly Member Low, is --

3 COMMISSIONER HOCHSCHILD: I'm sorry. It's just  
4 on --

5 MR. STEINHART: Sorry.

6 COMMISSIONER HOCHSCHILD: -- the NEM cap. That is  
7 for fuel cell projects only, though. Right? The five-  
8 megawatt cap, I don't think it applies to --

9 MR. STEINHART: That's correct.

10 COMMISSIONER HOCHSCHILD: Okay. I just wanted to  
11 make sure. Thanks.

12 MR. STEINHART: Assembly Bill 1924 is yet another  
13 instance of the language protecting our ability to obtain  
14 data.

15 Next slide.

16 SB 1222 was a PUC-sponsored reporting cleanup bill  
17 eliminating the need for certain outdated reports and one-  
18 time-only reports. And we benefit from that because  
19 references to our participation are deleted, as well.

20 Next slide.

21 Climate change legislation was obviously a  
22 significant area for the Legislature.

23 Next slide.

24 Of course, the most important bill to discuss is  
25 Senator Pavley's SB 32, which extends AB 32, the landmark

1 climate legislation celebrating its tenth anniversary this  
2 year. So, SB 32 moves the state forward to a goal of  
3 achieving a forty percent reduction of the state's  
4 greenhouse gas emissions below 1990 levels by 2030, but  
5 SB 32 was required -- has a contingent enactment provision  
6 with AB 197.

7 Contingent enactment occurs when one bill does not  
8 become operative unless another bill takes effect. So,  
9 AB 197 has three important provisions to discuss:

10 First, it establishes a legislative oversight  
11 committee to which the chair of the ARB will  
12 report annually. It's a Joint Legislative  
13 Committee.

14 Second, the bill will add two ex-officio  
15 members of the Legislature to the ARB Board, and  
16 it makes the terms of voting members of the Board  
17 six years.

18 And, finally, the bill requires ARB, in  
19 implementing its work to achieve the forty percent  
20 target, to consider the social costs of the  
21 emissions of greenhouse gasses and to prioritize  
22 emission reduction rules and regulations that  
23 result in direct emission reductions at both large  
24 stationary sources and from mobile sources.

25 So, a significant policy change that they'll be

1 dealing with.

2 Next slide.

3 There was agreement reached on an expenditure plan  
4 for \$900 million with the Greenhouse Gas Funds this year,  
5 leaving approximately \$462 million available still.

6 AB 1550 set a significant requirement for the  
7 expenditure of those funds that twenty-five percent of the  
8 investments be spent on projects in disadvantaged  
9 communities.

10 AB 1613 is the trailer bill that actually contains  
11 the \$900 million spending plan.

12 And SB 859 contains policy changes to implement  
13 that plan, and there are several items of interest to the  
14 Commission there.

15 First, as a follow-on to the governor's Tree  
16 Mortality Emergency Declaration, both investor-owned  
17 utilities and publicly-owned utilities with more than  
18 100,000 customers will be required to procure their  
19 proportionate share of 125 megawatts of energy produced from  
20 biomass to be produced at existing bioenergy facilities.  
21 So, for the publicly-owned utilities, that is the top seven  
22 and their proportionate share of that figure is  
23 approximately ten percent of the 125 megawatts.

24 SB 859 also adds \$80 million to the Clean Vehicle  
25 Rebate Program for a total of \$133 million. And it adds



1 further provisions to help low-income buyers purchase  
2 cleaner vehicles.

3 Next slide.

4 Senator Lara's SB 1383 requires the ARB to  
5 implement the comprehensive short-lived climate pollutant  
6 strategy, achieving reductions by 2030 of specified gases.  
7 The significance for the Commission, though, is our  
8 involvement in creating recommendations for the development  
9 and use of renewable gas and reporting these recommendations  
10 in the 2017 IEPR.

11 Specifically, these involve establishing  
12 infrastructure development and procurement policies to  
13 encourage dairy biomethane projects, and the PUC and the  
14 Energy Commission will work together to direct gas  
15 corporations to implement at least five dairy biomethane  
16 projects.

17 And the passage of this bill was linked to an  
18 appropriation of \$50 million for this purpose in AB 1613,  
19 which I previously discussed.

20 Next slide.

21 Next, we'll look at efficiency legislation from  
22 this year.

23 Next slide.

24 First, AB 1928 requires the Commission to  
25 establish new efficiency performance standards for landscape

1 irrigation equipment, and then prohibits equipment made  
2 after the adoption date from being sold in California unless  
3 it meets those standards.

4 This is work that was already in the pipeline for  
5 our Appliance Efficiency Standards, but it now has a  
6 statutory completion date set for it.

7 Senate Bill 1414, by Senator Wolk, takes another  
8 step forward in a -- the path toward the long-hoped-for  
9 creation of an HVAC installation tracking registry in the  
10 state. At one point, the bill did include that, but the  
11 final bill requires the Commission to develop and approve a  
12 plan promoting installation that complies with energy  
13 requirements in the building code.

14 And it authorizes us to adopt regulations in  
15 support of this plan, and also, significantly, the bill  
16 prevents the investor-owned utilities from paying out  
17 rebates for installations unless the customer provides proof  
18 that the permit has been closed and the installation  
19 complies with relevant building codes.

20 Next slide.

21 Looking at energy conservation and assistance  
22 bills - Assembly Member Gordon authored a bill attempting to  
23 shift the responsibility for developing a state building  
24 energy efficiency plan from the Department of General  
25 Services to us here at the Energy Commission.

1           It's an idea that has been attempted before, but  
2 this bill was held on suspense in the Senate Appropriations  
3 Committee.

4           Next are two significant bills authored by the  
5 chair of the Senate Energy, Utilities, and Communication  
6 Committee, Senator Hueso.

7           First, Senate Bill 1074 is an adjunct to the  
8 \$13.5 million appropriation for efficiency projects we got  
9 in the budget. Significantly, this bill provides a  
10 continuing appropriation of \$2.5 million a year for those  
11 efficiency projects as the ARRA fund loan repayments  
12 continue to pool.

13           So, we are not required to go back to the  
14 Legislature each year to seek continuing appropriation, but  
15 SB 1074 also allocates \$2.5 million of this year's  
16 \$13.5 million appropriation for a competitive solicitation  
17 for a geothermal mineral extraction project to be located in  
18 a disadvantaged community.

19           And that will be administered by the Renewables  
20 Division under the existing GERDA (phonetic) program.

21           Next, SB 1207 is a very significant bill that  
22 extends the sunset date of the Energy Conservation  
23 Assistance Act for another ten years, from 2018 to 2028.  
24 It's a favored program with the Legislature, so we're happy  
25 to see that continuation occur.

1 But also, we were successful in requesting that  
2 the author include language that provides the statutory  
3 authorization necessary for us to collaborate with the  
4 I-Bank on a program that will allow us to pledge a portion  
5 of the ECAA loan portfolio as collateral for I-bank bonds  
6 for their -- California Lending for Energy and Environmental  
7 Needs program, and that will assist, we hope, in the credit  
8 rating for those bonds.

9 That program is already underway and, for example,  
10 is providing money for Huntington Beach to upgrade its  
11 street lighting. So, projects that like that will be  
12 benefited by this collaboration.

13 Next slide.

14 The author of SB 350 also authored a bill this  
15 year, SB 1393, to allow for clean-up and necessary  
16 modifications to that bill. We, along with the Resources  
17 Board and the PUC, participated in a process where we met  
18 with stakeholders and presented our desired changes to  
19 resolve inconsistencies and implementation issues with that  
20 bill, and several of our items received unanimous support  
21 from the stakeholder group and were included in the bill.

22 They will reduce our workload in several areas.  
23 They will reduce unnecessary reporting and benefit us in  
24 that way. This is a process that we expect to continue.  
25 SB 350 is a sprawling bill so we expect it to continue and,

1 in fact, continue stakeholder discussions on other items  
2 this fall in the hope of addressing those next year. So, I  
3 won't go into the specifics of those, but it was a helpful  
4 bill for us.

5 Next slide.

6 And bills in the electricity area are next.

7 Next slide.

8 Three bills focused on energy storage.

9 Assembly Bill 33, by Assembly Member Quirk,  
10 requires the CPUC to consult with us on an analysis for the  
11 potential for long duration bulk energy storage. That bill  
12 also makes new pumped hydroelectric storage facilities  
13 eligible for any increased storage targets set by the PUC.

14 AB 2868, will require the CPUC to direct the  
15 state's three largest utilities to file applications for  
16 programs accelerating distributed energy storage. They will  
17 be required to consult with us and the ARB on this project.  
18 And the goal is to use ratepayer funds to expand and manage  
19 storage on the customer side of the meter with a  
20 500-megawatt cap.

21 Finally, I'll just mention SB 886. Senator Pavley  
22 attempted a bill to expand -- to determine appropriate  
23 energy storage procurement requirements to be achieved by  
24 2030. Storage is a favorite topic of hers. It would have  
25 required the PUC to require utilities to offer time of use

1 or dynamic pricing for customers using energy storage, but  
2 that bill was held under suspense in appropriations.

3 Next slide.

4 There was a transmission planning bill that would  
5 have required CAISO in conducting transmission planning to  
6 consider two specific elements. One is the May 2016 Solar  
7 Convening Report on least-conflict lands in the San Joaquin  
8 Valley, and also they -- it would have been required to  
9 consider our transmission principles, the so-called  
10 Garamendi Principles, established by legislation when  
11 Garamendi was a Senator, but that bill was also held on  
12 suspense.

13 Next slide.

14 Turning to fuels and transportation.

15 Next slide.

16 AB 1697 expands the existing list of preference  
17 criteria for Alternative and Renewable Fuel and Vehicle  
18 Technology Program projects. It expands the criteria to  
19 both include a project's ability to transition workers to  
20 the renewable fuel sector, and it expands the existing  
21 eligibility of workforce development programs for funding.  
22 It also requires us to collaborate with a specified group of  
23 workforce development entities, so it expands our work in  
24 that area under ARFVTP.

25 Next slide.

1           One bill attempted to address how federal funding  
2 for freight -- sustainable freight action plan efforts would  
3 be spent. It was authored by the chair of the Assembly  
4 Transportation Committee, Assembly Member Frazier. The  
5 governor did veto that bill, but he directed the  
6 transportation agency to work to prioritize the goals  
7 expressed in the bill.

8           And I'll pause here to mention that Assembly  
9 Member Frazier has alerted us - and we have been working  
10 with his Committee staff - that he will be holding an  
11 oversight hearing next year of our transportation program.  
12 So, we look forward to working with them on that.

13           Next slide.

14           Senator Pavley also authored a bill that was  
15 intended to create a Low Carbon Fuels Council to coordinate  
16 the state's activities among agencies in this area. Our  
17 chair would have been designated as the chair of that  
18 council, but she declined to proceed with that bill in the  
19 wake of her successful passage of SB 32.

20           Next slide.

21           Turning to natural gas, a significant area of  
22 legislation, of course, in the wake of Aliso Canyon.

23           Next slide.

24           First of all, Senator Pavley passed urgency  
25 legislation, SB 380, which is consistent with the governor's

1 January 6, 2016, Aliso Canyon Emergency Proclamation. This  
2 bill continued the prohibition against the reinjection of  
3 natural gas into the Aliso Canyon facility until a  
4 comprehensive safety review of all wells had been completed,  
5 but it also required the PUC to open a proceeding in  
6 consultation with the Commission to determine the  
7 feasibility of minimizing or eliminating Aliso -- the Aliso  
8 storage facility.

9 Two other bills related to storage established a  
10 framework for reforming the state's oversight of natural gas  
11 storage wells, and also reformatted the state's emergency  
12 response to leaks from wells.

13 Next slide.

14 Another bill that indirectly is related to Aliso  
15 and directly related to the attention it shines on natural  
16 gas usage in this state is AB 1496, directing the Air  
17 Resources Board to monitor and measure high emission methane  
18 hot spots in this state.

19 And the Energy Commission will have a role in this  
20 bill's requirement that the Resources Board consult with  
21 state agencies for the purpose of carrying out a life-cycle  
22 greenhouse gas emission analysis of natural gas produced and  
23 imported into the state.

24 This is somewhat similar to what was required in  
25 the trailer bill language for us to produce a report on the



1 resources of a natural gas tracking system for the natural  
2 gas brought into the state.

3 Next slide.

4 Turning to renewables.

5 Next slide.

6 A significant bill will -- AB 1110, by Assembly  
7 Member Ting, will update our Power Source Disclosure Program  
8 so that it now includes greenhouse gas emissions intensity.  
9 The bill will require us to adopt a methodology for each  
10 supplier to calculate the greenhouse gas emissions intensity  
11 of their offerings.

12 And we, the Commission, will be required to  
13 calculate the emissions intensity of statewide retail  
14 electricity sales. And both of those figures will be  
15 required to be reported on the existing Power Contact  
16 Disclosure Label distributed annually to consumers.

17 So, this will increase transparency of greenhouse  
18 gas emissions associated with utility power sources, create  
19 a uniform standard for -- to compare environmental  
20 attributes, and to require suppliers to use that methodology  
21 in their marketing.

22 Significantly, we will also be required to  
23 determine a format for our retail supplier to separately  
24 disclose, for the first time, their unbundled renewable  
25 energy credit purchases. We'll be creating guidelines to

1 address these reqs and suppliers will no longer be including  
2 those reqs in their reporting of one hundred percent of  
3 their energy supply purchases. They will be separately  
4 reported.

5 Suppliers will still, under the bill, though, be  
6 able to provide additional information to their customers  
7 describing other actions that they have taken related to  
8 greenhouse gas emissions, such as offsets or Cap-and-Trade  
9 compliance.

10 And I note that the bill requires us to use our  
11 best efforts to ensure that there is no double-counting of  
12 attributes, but it does not require us to create a regional  
13 tracking system, such as the Western Region Renewable Energy  
14 Generation Information System, or REGIS. The author  
15 supplied a letter to the journal clarifying that we were not  
16 required to create such a system, but to use our best  
17 efforts in implementing the bill.

18 Next slide.

19 Legislation AB 2561 created a one-year  
20 continuation of the existing CEQA Water supply assessment  
21 exemption for certain solar and wind applications.

22 Next slide.

23 And, finally, a PACE consumer protection bill was  
24 passed with no direct consumer -- Energy Commission duties,  
25 but, obviously, PACE efforts are important to us and in

1 achieving the governor's existing building efficiency goals.  
2 This bill will prevent a property owner from participating  
3 if the combined taxes and assessments would receive --  
4 exceed five percent of the property's market value. It  
5 codifies consumer protections for all PACE providers,  
6 including requiring a new disclosure modeled after the  
7 federal mortgage "Know Before You Owe" disclosure form so  
8 that customers can more easily understand all of the terms  
9 associated with PACE financing. And, finally, it creates a  
10 three-day "Right to Cancel" for the consumer after entering  
11 into an agreement.

12 That concludes my high-level overview of the  
13 legislation affecting the Commission this year.

14 COMMISSIONER DOUGLAS: Well, great. Well, that's  
15 quite a lot.

16 MR. STEINHART: It's a lot.

17 COMMISSIONER DOUGLAS: And it's a really helpful  
18 overview.

19 Does anyone have any questions right now for  
20 Barry?

21 (No audible response.)

22 COMMISSIONER DOUGLAS: It looks like you were very  
23 thorough. If we do have follow-up questions that occur to  
24 us later, I'm sure we'll -- we do know where to find you, so  
25 we'll look you up.

1 MR. STEINHART: Thank you very much.

2 The staff of the Office of Governmental Affairs  
3 stands ready to assist you with questions about these or any  
4 other bills.

5 COMMISSIONER DOUGLAS: Excellent.

6 MR. STEINHART: All right.

7 COMMISSIONER DOUGLAS: Well, thank you very much.  
8 Thanks for this.

9 MR. STEINHART: Thank you.

10 COMMISSIONER HOCHSCHILD: I'm just going to  
11 comment.

12 I already have appreciated the staff's sort of  
13 update on some of the details of the bills that have passed,  
14 so I can help, you know, our counterparts and stakeholders  
15 understand. So, thanks for that.

16 MR. STEINHART: Happy to help. Thank you.

17 COMMISSIONER SCOTT: And I'll just add, the  
18 overview is -- this is really a lot of great information, so  
19 I appreciate you bringing that to our business meeting.

20 MR. STEINHART: Thank you.

21 COMMISSIONER DOUGLAS: Great. All right.

22 Thank you, Barry.

23 We're on to Item 10, discussion of clean energy --  
24 discussion of Energy Commission progress regarding  
25 implementation of the Clean Energy and Pollution Reduction

1 Act of 2015, SB 350.

2 Michael?

3 MR. SOKOL: All right. Good morning,  
4 Commissioners. I'm Michael Sokol, special coordinator for  
5 the implementation of Senate Bill 350, the Clean Energy and  
6 Pollution Reduction Act of 2015. And I will provide a quick  
7 status update on the Energy Commission's implementation  
8 efforts similar to what has been provided at the last two  
9 monthly business meetings. Then, we will hear a more  
10 detailed update on a few of the specific activities mandated  
11 by the bill.

12 So, it has now been over a year since this  
13 historic legislation was signed into law by Governor Brown.  
14 And, in that year, the Energy Commission and our sister  
15 agencies have made quite a bit of progress to make the  
16 required changes and lay the groundwork for the next phase  
17 of California's clean energy revolution, as envisioned by  
18 SB 350.

19 At the last meeting, we heard an update on the  
20 Barriers study for low-income customers and disadvantaged  
21 communities' access to energy efficiency and renewable  
22 energy, and we had a check-in on activities relating to the  
23 fifty percent Renewable Portfolio Standard.

24 Today, we'll hear another brief update on the Low-  
25 Income Barriers Study, followed by a discussion on Title 20

1 Data Collection rulemaking efforts, and lastly a discussion  
2 of the Assembly Bill 802 building energy use benchmarking  
3 program. The AB 802 benchmarking program will help to set a  
4 baseline and track progress for the doubling of energy  
5 efficiency required by SB 350. And we'll hear a little more  
6 about that in just a moment.

7           Since the last business meeting, we've also had a  
8 number of meetings and coordination efforts, including  
9 several workshops that the Energy Commission has hosted  
10 related to SB 350 activities.

11           On September 26<sup>th</sup>, there was a staff workshop on  
12 the Title 20 Data Collection Regulations that you will hear  
13 more about in a moment.

14           On October 5<sup>th</sup>, there was a Lead Commissioner  
15 workshop hosted on transportation electrification for  
16 publicly-owned utilities to support the integrated resource  
17 planning process that's currently underway.

18           And this past Monday, we had a couple of  
19 workshops. There was first a staff workshop on the Existing  
20 Building Energy Efficiency Action Plan Update, with a final  
21 draft of that update planned for completion by the end of  
22 the year.

23           We also had, on Monday, a Lead Commissioner  
24 workshop for -- in coordination with the governor's office  
25 on proposed principles of governance to facilitate the

1 California Independent System Operator's transition to a  
2 regional organization.

3 And, in addition, we continue to coordinate and  
4 staff continues to coordinate across divisions and with  
5 other agencies on a variety of topics covered in SB 350 to  
6 ensure consistency and alignment of programs wherever  
7 possible.

8 So, now I'll hand off to Alana Mathews to provide  
9 a more detailed update on the Low-Income Barriers Study.

10 MS. MATHEWS: Thank you. Thank you, I have just  
11 brief comments.

12 Obviously, last month we released the draft report  
13 and had a workshop. We had public comments due  
14 September 29<sup>th</sup> and we received twenty-eight comments that  
15 generally were very supportive of the Energy Commission's  
16 report and just provided feedback on how we could be more  
17 specific in certain areas in developing our recommendations.

18 We've been coordinating with other sister agencies  
19 such as the CPUC and CSD to refine the report content and  
20 develop specific recommendations that will be included in  
21 the final draft of the report. Our draft recommendations  
22 are scheduled to be released to the public this Friday, so  
23 within the next -- this week, and we'll have comment that  
24 we'll take over a two-week period, and then we hope to  
25 incorporate that with actually the draft report so that we

1 can release both of those documents and have them submitted  
2 and brought to the December Energy Commission Business  
3 Meeting to be adopted.

4 And lastly, I just want to highlight that we  
5 continue to work with ARB, who has the transportation  
6 component. Again, with meetings with staff trying to  
7 facilitate that when we can with Commissioner Scott just to  
8 keep her informed and coordinating with them.

9 That's it.

10 MR. WENG-GUTIERREZ: Good morning, Chair and  
11 Commissioners. My name is Malachi Weng-Gutierrez. I work  
12 in the Energy Commission's Demand Analysis Office and I have  
13 been asked to provide an update on the Title 20 Data  
14 Collection rulemaking activities.

15 On January 13<sup>th</sup> of this year, the Energy  
16 Commission adopted an Order Instituting Rulemaking to  
17 develop and implement regulations and guidelines to support  
18 California's Energy Efficiency Renewable Energy and GHG  
19 Reduction Goals.

20 One of the activities identified under the  
21 rulemaking proceeding involved considering amending the  
22 Commission's regulations specifying data collection and  
23 disclosure, which are found in California Code of  
24 Regulations, Title 20, Chapter 3, in Sections 2501 through  
25 2511.



1           As Michael mentioned, on September 26<sup>th</sup>, staff  
2 held a workshop to present and discuss an early draft of the  
3 proposed Title 20 Data Collection regulatory changes. The  
4 proposed regulations included power plant generation data  
5 from balancing authorities, comprehensive photovoltaic  
6 interconnection data, wind performance and CHP data to  
7 improve analytical precision, a load-shape threshold  
8 reporting levels, customer-level energy consumption data,  
9 surveys to characterize energy consumption, behind-the-meter  
10 load estimates, networked electric vehicle charging load-  
11 shape data, and natural gas distribution data.

12           Given the breadth of topics covered in the  
13 proposed regulatory language and the level of participation  
14 at the workshop, it was clear that further outreach to  
15 obligated parties was warranted.

16           The deadline for written submissions on the draft  
17 language was extended an extra week. In addition, staff has  
18 scheduled a meeting for the -- with the utilities for later  
19 this afternoon and hopes to have constructive conversations  
20 that inform the next regulatory draft.

21           We have received comments from nearly a dozen  
22 parties, including utilizes, POU associations, electric  
23 vehicle stakeholders, and balancing authorities. A few of  
24 the highlights of the comments include:

25           A general recognition of the need to collect data

1 to support the new responsibilities and analytical  
2 improvements.

3 A willingness to interests -- and interest in  
4 engaging staff by obligated parties on the topics covered in  
5 the regulations.

6 An interest in discussing existing sources of  
7 information, which might meet our needs.

8 And recommendations to form a working group to  
9 discuss transportation electrification topics.

10 Also, the comments included identification of  
11 language, which was not clear and did not clearly define  
12 both obligated parties or the data that was needed.

13 And there was generally a concern regarding the  
14 handling of data, including some concerns about confidential  
15 data.

16 And then, lastly, there was an interest and  
17 suggestions about how to structure data submission  
18 compliance procedures.

19 Staff continues to work on regulatory language in  
20 an effort to best meet the Energy Commission's analytical  
21 needs, including further disaggregation of the demand  
22 forecast, better characterization and inclusion of  
23 increasing -- increasingly important load modifiers, and  
24 expanded analytics to support new responsibilities.

25 Staff has made additional changes as a result of

1 the workshop comments provided and will continue to revise  
2 regulatory language as more input is received. Legal and  
3 program staff will be working on the additional regulatory  
4 package material in an effort to continue moving forward  
5 towards a submittal of a package to OAL.

6 I would be happy to answer any questions you have  
7 or provide any additional information, if there are areas of  
8 specific interest that you have.

9 MR. JENSEN: Okay. Alright, good morning,  
10 Commissioners. My name is Erik Jensen. I am in the  
11 Existing Buildings and Compliance Office and I am developing  
12 regulations to implement the whole-building data access,  
13 benchmarking, and public disclosure provisions in AB 802.

14 Today, I'll give a summary of what the statute  
15 requires in these areas, list the major events that have  
16 occurred thus far, and share with you our tentative schedule  
17 for implementing the program.

18 Next slide, please.

19 So, there are three important requirements in this  
20 context, in AB 802:

21 Firstly, starting January 1, 2016, California  
22 utilities were required to be in maintaining energy's  
23 records for all buildings to which they provide energy.

24 Starting January 1, 2017, utilities will be  
25 required to provide building-level energy use data to

1 building owners, agents, or operators on request - and  
2 this is for covered buildings, which generally referred  
3 -- generally means all commercial buildings and certain  
4 multifamily residential buildings.

5           The bill also directed the Energy Commission  
6 to create a program for benchmarking and publicly  
7 disclosing energy performance information on a certain  
8 subset of these covered buildings. And no specific  
9 schedule is given for this, but staff are targeting the  
10 second half of 2017 for the regulations being effective  
11 and 2018 for the first reporting to the Energy  
12 Commission from building owners.

13           Next slide, please.

14           So, since the bill became law in October of 2015,  
15 staff have held three workshops: a scoping workshop in  
16 November, an initial language workshop in March, and a draft  
17 regulation workshop in July. At each workshop, we received  
18 comments both in person at the workshops and through written  
19 comments.

20           After each workshop, we've incorporated those into  
21 the draft language, which we are currently working on and  
22 finalizing. Some of the important issues that we addressed  
23 at the most recent workshop and are currently working on are  
24 improving the language for how to address master-metered  
25 buildings, methods for aggregating building-level energy

1 usage, and timing requirements for the program.

2 Next slide, please.

3 So, as I mentioned, we're currently working on  
4 creating final -- a final draft version of the regulations.  
5 We will submit that to the Office of Administrative Law late  
6 this year for consideration both by them and for their  
7 consideration and opportunities for public input.

8 And, as I mentioned earlier, we expect the  
9 regulations to go into effect in the second half of 2017.  
10 It's important to note that, while the regulations will not  
11 yet be in effect, January 1, 2017, building owners will  
12 still be able to get their building-level data from  
13 utilities on that date. That's a statutory requirement that  
14 doesn't depend on the regulations being in effect.

15 And, as I also mentioned earlier, we'll -- the  
16 proposal is to begin reporting to the Energy Commission for  
17 commercial buildings in 2018, for multifamily buildings in  
18 2019, and then to begin public disclosure for each of those  
19 sectors one year later. So, 2019 for commercial and 2020  
20 for multifamily buildings.

21 That concludes my presentation and I'll take any  
22 questions that you have.

23 COMMISSIONER DOUGLAS: Do you have any --

24 MR. SOKOL: So, we have one more item that we want  
25 to add in relation to the barrier study.

1 MS. MATHEWS: Yes. So, we were very fortunate to  
2 have a unique person come and join - one of our Stanford  
3 Fellows from Commissioner Hochschild's office, who stepped  
4 in immediately and began to assist me with the barrier  
5 study, Esteban Guerrero.

6 Can you come up? (Laughter.) You can stand at  
7 the podium.

8 So, I wanted to say thank you because he has been  
9 a tremendous help. He attended every community workshop  
10 that we had, he was our notetaker for many of the workshops  
11 in Spanish as a bilingual notetaker, and he took the lead  
12 for writing the report -- took the lead for writing the  
13 report section that deals with the small business and  
14 contracting opportunities, barriers, to low-income  
15 customers, low-income businesses, and businesses in  
16 disadvantaged communities.

17 So, he has done a tremendous amount of heavy  
18 lifting with the report, as well as with helping us with the  
19 workshops, and I wanted to say thank you, and we were hoping  
20 to get a photo op, but Katie hasn't made it right here yet.  
21 So, if she shows up at some time while we're doing the  
22 Commissioner reports, we hope that he'll be able to have  
23 that opportunity.

24 Did you want to say something?

25 MR. SOKOL: I just want echo Alana's comments to

1   thank Esteban for all the great work. In the short time  
2   that I've been here, he's been an outstanding help and  
3   really some heavy lifting on all this. So, it's much  
4   appreciated.

5               MS. MATHEWS: And I would say that he's leaving  
6   for a very wonderful opportunity, so if you want to share  
7   that, feel free to do that, as well.

8               MR. GUERRERO: Sure. Thank you.

9               My name is Esteban Guerrero. As it's been  
10   mentioned, I've been in Commissioner Hochschild's office for  
11   the past three or four months. (Laughter.) And I really  
12   appreciate the opportunity that I was given, not just to be  
13   at the Energy Commission but, in particular, to participate  
14   in this very important work.

15              It's been fantastic in many ways and I really  
16   enjoyed going to the community meetings. It was great to  
17   meet a lot of people throughout the state. And I'm not  
18   saying goodbye, I think I'm -- I'll be in touch with many of  
19   you and, even if I -- I'm going to a start-up.

20              I'm going to be doing low-energy, low-impact  
21   desalination. And, even though I'm going back to the  
22   private sector, I definitely want to be involved in policy  
23   in some way, especially because I do believe in a  
24   sustainable future.

25              So, once again, thank you for the opportunity.

1 This was great.

2 COMMISSIONER HOCHSCHILD: Let me just add my  
3 thanks. Esteban's been just a tremendous part of our team  
4 this past summer. Also, I'm excited about what you're going  
5 to do. Desalination is a really important issue in the  
6 drought that we're in now.

7 So, thank you for all your service and for the --  
8 particularly for the workshops around this report. Just  
9 terrific work.

10 MR. GUERRERO: Thank you.

11 MEMBER OF THE PUBLIC: Shall we take a photo?

12 (Group photo taken.)

13 MR. SOKOL: All right. Well, thank you, again,  
14 Esteban.

15 And, Commissioners, we'd be happy to answer any  
16 questions on any SB 350-related item.

17 COMMISSIONER SCOTT: I have some questions. I  
18 wanted to check in with you on the -- we've got draft  
19 recommendations and you asked for comments back -- the  
20 internal comments back by Friday. I imagine -- I submitted  
21 some and I imagine other Commissioners did, as well.

22 I'd like to have a chance to see the updates that  
23 you made before you post those on Friday. So, do you have a  
24 sense of when that will be ready for us to take one last  
25 look at?



1           MR. SOKOL: Sure. I think we're at a point now  
2 that they're pretty well settled. We'll be able to send an  
3 update to get Commissioners' eyes on those before we post  
4 those, probably today.

5           COMMISSIONER SCOTT: Okay. Great.

6           And then, I wanted to check in - you mentioned  
7 that we got about -- what did you say? Twenty-seven  
8 comments that came in? And that's fantastic, so I imagine  
9 you are updating the report to have a version that will  
10 respond to those comments and have some additional  
11 information.

12           What is -- what's the timeline look like for that  
13 component?

14           MS. MATHEWS: So, during the briefings, the  
15 comments that we received reflected the ones that came in.  
16 So, the Commissioner briefings that we received.

17           COMMISSIONER SCOTT: Got it. But, I mean, drafted  
18 into the report.

19           CHAIR WEISENMILLER: Yeah. The theory was we  
20 could either put out the recommendations short document for  
21 people to react to.

22           COMMISSIONER SCOTT: Mm-hmm.

23           CHAIR WEISENMILLER: Or we could try to put out  
24 the whole revised report with that folded in.

25           COMMISSIONER SCOTT: Mm-hmm.

1 CHAIR WEISENMILLER: The idea was let's just put  
2 out the recommendations because otherwise we'd probably have  
3 a half-baked report --

4 COMMISSIONER SCOTT: Right.

5 CHAIR WEISENMILLER: -- going. And so, the answer  
6 is later, but, you know, let's get this out, let's get the  
7 public comment in, start the revisions, let people know they  
8 have to have an integrated product working backwards from  
9 the December Business Meeting.

10 COMMISSIONER SCOTT: Right.

11 CHAIR WEISENMILLER: You know, and public time.  
12 So, anyway, somewhere in that November period, these two  
13 things have to meld up.

14 COMMISSIONER SCOTT: Yes. Okay.

15 CHAIR WEISENMILLER: But, again, it was -- I was  
16 really -- there has been some discussion about trying to do  
17 the updated report and the recommendations.

18 COMMISSIONER SCOTT: Mm-hmm.

19 CHAIR WEISENMILLER: And it struck me as it's  
20 going to -- it's better to get people just to focus on the  
21 recommendations.

22 COMMISSIONER SCOTT: Yeah. I agree that that  
23 makes sense. I was actually thinking about that next  
24 step --

25 CHAIR WEISENMILLER: Yeah.

1 COMMISSIONER SCOTT: -- which is the weaving into  
2 the full report. The additional comments that folks have on  
3 things that were outside of the recommendations.

4 So, you think that'll be in November?

5 MR. SOKOL: So, I can just elaborate on that a  
6 little bit. So, the recommendations that we plan to post by  
7 Friday will include those comments that were submitted after  
8 this -- the most recent round of comments.

9 For the full report, we -- staff is almost done  
10 incorporating those comments into the report and now we're  
11 looking to fold those recommendations into the full report,  
12 which will be published ahead of the December Business  
13 Meeting. So, early December, it should be public.  
14 Commissioners will obviously see it well ahead of that as  
15 they go through the review process.

16 COMMISSIONER SCOTT: That sounds great.

17 And then, I wanted to just give an update to my  
18 fellow Commissioners on the integrated resource planning  
19 workshop on transportation electrification that Michael  
20 mentioned in his summary. Just brief.

21 We did that -- we did the workshop earlier this  
22 month. And basically, what we did was we spent the first  
23 half talking to POUs and really trying to understand what it  
24 is -- what information that they have, what format is it  
25 going to be -- is it in and how could we -- how can we put

1 that together for part of the integrated resource planning?

2 The second half, we spoke with folks like Nancy  
3 Ryan from E3, from EPRI, from ICF, and others to see what  
4 experts in the transportation electrification field would be  
5 looking for in the type of -- in this type of report back.  
6 And so -- so that's what we did, but I just wanted to get a  
7 sense of -- I don't know, on the energy efficiency  
8 components, working with the POU's or on the renewables, what  
9 your plan or vision is in terms of putting together  
10 workshops. Do we want to talk about that now or --

11 CHAIR WEISENMILLER: It's sort of -- we're sort of  
12 transitioning into the Lead Commissioner reports.

13 COMMISSIONER SCOTT: Okay.

14 CHAIR WEISENMILLER: Which is good.

15 (Laughter.)

16 COMMISSIONER SCOTT: That's fine.

17 CHAIR WEISENMILLER: Which is actually good.

18 So, my only question is does anyone have questions  
19 for the staff on these three presentations? And if not,  
20 we'll go directly into your question. But let's at least --

21 COMMISSIONER DOUGLAS: I don't have a question. I  
22 want to thank them for their hard work on this and I've  
23 appreciated the opportunity to review and have appreciated  
24 the huge amount of effort that's gone into this.

25 CHAIR WEISENMILLER: Yeah. That's certainly the

1 case, I think, for all of us. We certainly understand the  
2 challenges with the schedule. We understand the challenges  
3 of making sure that we can have broad public participation  
4 and the tight schedule and, at the same time, produce a  
5 quality report. And, frankly, the issues are quite  
6 challenging.

7 MR. SOKOL: Yeah.

8 CHAIR WEISENMILLER: So, you know, I think --  
9 certainly talking to (indiscernible) Grant from Greenlining,  
10 I think the anticipation is that we will have -- we will not  
11 reach conclusions on every single thing, but we will be  
12 identifying some issues, which are going to require  
13 additional work.

14 COMMISSIONER HOCHSCHILD: Yeah. And I want to --  
15 I want to just sort of second those ideas. I mean, the  
16 energy efficiency of low-income communities has been -- you  
17 know, it's been a difficult nut to crack with a lot of  
18 things having been tried over the years.

19 And, you know, we're -- I think we have a lot more  
20 tools at our disposal. And I think part of the process here  
21 has just been getting, you know, staff and authors to learn  
22 about all this history, because really it's -- no one person  
23 really knows it all.

24 So, a lot of it has been really spadework at that  
25 level that now, I think, it's fruitfully being distilled

1 into approaches that mostly we can agree on, and I think  
2 it'll spin out next year into legislative discussions and  
3 the whole deal. And I think it's great that there's a  
4 consensus, really, that we can't leave the low-income and  
5 disadvantaged behind and we've got to figure out ways to  
6 really bring them along with this transition to clean  
7 energy.

8           And this report really is the center of that  
9 discussion, so it's really been -- I think it's quite  
10 exciting and compelling and it's going to produce some good  
11 results. But it's an ongoing process; it'll never really  
12 end, right?

13           CHAIR WEISENMILLER: Yeah. Well, it's good. You  
14 know, so -- I think, certainly, it's good to get -- I think  
15 it's very good to follow up on your questions, and certainly  
16 let's keep it in the Item 10, 350 conversation context, as  
17 opposed to Lead Commissioner, and thinking about it a little  
18 more clearly.

19           So, this -- let me frame the IRP part, and then  
20 turn to Andrew and David on some of the components.

21           So, on the IRP part, at this point, we're working  
22 towards a workshop, which is going to be -- originally, we  
23 were thinking November 10<sup>th</sup>. At this point, it's going to  
24 be in December on the IRP process generally.

25           And, you know, what we need to do is specify some

1 forms of forms and instructions so we at least understand  
2 clearly what the POU's are planning to do. You know, I mean,  
3 we can get more or less ambitious than that, but at a  
4 minimum, we have to figure out what they're planning to do.

5 And associated with that is our earlier  
6 discussions for next year's IEPR and, subsequently, we're  
7 just going to need a lot of data and were we thinking the --  
8 what do we think of the data part? Now, part of the issue  
9 is -- as we're marching forward, is coordinating with the  
10 PUC and the ARB.

11 And the PUC is also working on the IRP front. The  
12 ARB -- well, again, one of the things we have to do is look  
13 at greenhouse gas reductions relative to the baseline. Now,  
14 you can go on the ARB website and you can see exactly what  
15 the utility sector greenhouse gas numbers were in 2014.

16 On the other hand, if you want to know what the  
17 baseline is, say, for SMUD or for PG&E, it's -- you know,  
18 it's not there. (Laughter.) It's somewhere in that  
19 machinery. And one of the challenges we need to do is to  
20 make sure that we, the PUC, and the ARB all have a  
21 consistent approach there and we not have a sort of Energy  
22 Commission set of baseline numbers, a PUC set of baseline  
23 numbers, and an ARB set of baseline numbers.

24 And -- you know, because that's going to be the  
25 metric, which basically these are going to be held to. And

1 so, there are conversations going on. I believe  
2 Commissioner Randolph and I will have a joint workshop in  
3 December on IRP issues. Again, just trying to set that  
4 umbrella.

5 But there are some really challenging questions  
6 and I also acknowledge from the start is -- oh, I see Tim  
7 there. But, obviously, our authority in this area is  
8 different than the PUCs. So, having said that we're having  
9 a joint workshop, there are things that are very common that  
10 both of us will approach, such as the baseline issues, and  
11 there are things that are different, you know, and sort of  
12 recognize the differences.

13 I mean, we certainly, you know, will have --  
14 looking at the composition, we will have some degrees of  
15 differences with the POU's on exactly what we're doing here  
16 as we're trying to figure it out, but, you know, at least  
17 we're trying to get the consistency across the three  
18 agencies, which is not necessarily easy.

19 So, that's the umbrella, shall we say, and I'm  
20 assuming, as part of that, you've been working very closely  
21 with -- you know the basic drill of working with those --  
22 with the PUC and the ARB so that we're all sort of moving in  
23 the same direction on the electrification of transportation  
24 issues.

25 COMMISSIONER SCOTT: Yes, we are working on that.



1 So, Commissioner Peterman and me and Alberto Ayala and some  
2 others have been meeting every six weeks or so to talk about  
3 the transportation electrification component and we've got a  
4 working group that's kind of doing similar analysis so that,  
5 when we get estimates of how much greenhouse gas reductions  
6 are associated with specific transportation electrification  
7 aspects, we're all using the same numbers. So, we're  
8 working on that in the transportation electrification space,  
9 as well.

10 CHAIR WEISENMILLER: And I think one of the things  
11 to indicate is one of the complexities along with everything  
12 else is obviously, in the IEPR, we do the demand forecasts.

13 COMMISSIONER SCOTT: Mm-hmm.

14 CHAIR WEISENMILLER: And, you know, next year's  
15 IEPR is sort of like mindbogglingly complex in terms of  
16 figuring out the doubling of energy efficiency. But it's  
17 also going to need to deal with things like what is the  
18 baseline? What is the additional load coming in from  
19 electrification? And that will be used by the PUC, ISO, and  
20 all the various processes.

21 So, again, along with the programs is the load  
22 part and the load part ties back to, again, this discussion  
23 of data.

24 COMMISSIONER SCOTT: Yes.

25 CHAIR WEISENMILLER: I mean, you know, there's a

1 whole bunch of places but, if we don't have the data, we're  
2 really, you know, in the soup.

3 COMMISSIONER McALLISTER: So, the data really is  
4 the -- you know, it's the grease that allows everything  
5 to -- you know, the actual conversations to take place, and  
6 then we need to get to the issues like, okay, well, what are  
7 the actual metrics we're going to be tracking? You know,  
8 and those might vary across agencies and they certainly  
9 might even vary across the division here, but we need all of  
10 them in order to triangulate and make sure they're going  
11 along in tandem.

12 So, this data workshop -- or this data activity in  
13 350 implementation, this rulemaking, is supremely important,  
14 I would say, to sort of convene the minds across the  
15 agencies to hammer all that stuff out.

16 So, at least we have the working capital that we  
17 can move forward to do the analysis and the planning and the  
18 monitoring later. This is a very longitudinal activity.  
19 It's going to go on for decades, really. So, the forecast  
20 is ten years forward, but we really want to look back ten  
21 years from now and see where we've been in some pretty  
22 serious detail with the right metrics so we can look at how  
23 we're achieving all these goals, including the doubling of  
24 efficiency, but all the other -- but the carbon goals and  
25 all the rest of it. Right. So, they all have to work

1 together. That's why this is really kind of a change in how  
2 we have to do business to implement these policies.

3 CHAIR WEISENMILLER: Any --

4 COMMISSIONER McALLISTER: At least that's my two  
5 cents.

6 CHAIR WEISENMILLER: Just to push you a little  
7 further is, first of all, we have specific legislative  
8 authority in the area of energy efficiency on existing stuff  
9 in terms of the programs. Now, that's a different subset  
10 than what does the doubling mean?

11 COMMISSIONER McALLISTER: Mm-hmm.

12 CHAIR WEISENMILLER: So, one of -- I'm going to  
13 say, Andrew had (indiscernible) to the extent it's  
14 forecasting. It's both our headaches. It's sort of what's  
15 going on there.

16 And the other headache we're struggling with is,  
17 you know, we've had a workshop on what is the baseline on  
18 energy efficiency?

19 COMMISSIONER SCOTT: Mm-hmm.

20 CHAIR WEISENMILLER: I mean, again, if we're going  
21 to double, what are we doubling from? But, you know, we've  
22 been talking about trying to work out -- you know, and  
23 again, there's going to have to be some combination of  
24 conversation -- a variety of conversations - some agency-to-  
25 agency, some public on what does that mean for programs?

1           I mean, if we just continue to do what we're doing  
2 in energy -- if we or the IRUs or the POUs just continue the  
3 status quo, well, we're doubling and we're certainly not  
4 going to get the effects of doubling. So, that's the other  
5 thing that we've got to really grapple with, so.

6           COMMISSIONER McALLISTER: Yeah. And I guess --  
7 you know, the -- kind of the flip side of that is, if we  
8 only capture the programs in terms of their impacts, then  
9 we're missing the rest of the marketplace. And the programs  
10 are super important, you know, and there are lots of, you  
11 know, we call them resource programs and non-resource  
12 programs.

13           You can get all the jargon, but we want to capture  
14 energy efficiency improvement -- we have to capture energy  
15 efficiency improvement across the economy and not just in  
16 the incremental impacts of, say, a project that got some --  
17 that was touched by a ratepayer-funded program.

18           But there may be, next door, another project that  
19 happened that did great energy efficiency that participated  
20 in no programs and is still part of the economy and is still  
21 generating energy efficiency. And we need to have --  
22 therefore, we need to have base metrics, which are  
23 independent from the programs, which are just the baseline.  
24 You know, where is the energy usage intensity? Where --  
25 what is -- how does the economy use energy in each of its

1 sectors?

2           And then we can detect changes from that. And  
3 that sort of gets us at least somewhat off the hook from  
4 sort of having to dial in the attribution super-effectively,  
5 right? And so, I think that's -- which has been much of the  
6 challenge in the energy efficiency realm is calculate the  
7 exact impacts of this or that program.

8           I think we need the bigger picture. You know, the  
9 health of the forest and how the forest is changing over  
10 time, and then we can go look at the individual plots of  
11 trees to sort of do more detail analysis, but I think that  
12 we need to do all of the above to kind of get a handle on  
13 where we're going with efficiency.

14           And then -- if you want to then -- you could ask  
15 the same set of questions about transportation. You know,  
16 that's sort of a new demand that's coming on and we need to  
17 have the analytical chops to be able to sort of  
18 independently characterize that and see how all these pieces  
19 fit together.

20           So, it's doable in 2016 with the analytical power  
21 that we have and the Cloud, et cetera. I mean, you know,  
22 this is not the '80s. So, I think the challenge is just  
23 kind of evolving our practices and updating, kind of  
24 refreshing the way that we gather data and the way we treat  
25 data and the way we use data.

1           And so, I think that -- you know, sort of --  
2 Malachi's sort of going like this, oh, brother.

3           (Laughter.)

4           CHAIR WEISENMILLER: No, I would (indiscernible)  
5 doable. Conceptually, it is.

6           COMMISSIONER McALLISTER: Yes.

7           CHAIR WEISENMILLER: Now, whether we have the data  
8 and everything in place.

9           COMMISSIONER McALLISTER: Well, that's our job,  
10 right, is to sort of lay out the vision.

11          CHAIR WEISENMILLER: Yeah.

12          COMMISSIONER McALLISTER: So, anyway, this is  
13 also -- just, by the way, why I'm so excited about this,  
14 because I feel like it's -- it really is kind of  
15 fundamental -- I think fundamentally positive thing for the  
16 Commission to be -- sort of be guiding this discussion in a  
17 way that has a very clear public purpose role and a very --  
18 I think a -- you know, build a dynamic discussion but on a  
19 very clearly policy-driven context. You know, we're not  
20 just doing this because, we're doing this because the  
21 Legislature has asked us to do it and it's very clear.

22          So, anyway, that's my two cents on the data stuff  
23 and I can talk in my comments about the 802.

24          CHAIR WEISENMILLER: Commissioner Hochschild, do  
25 you want to talk about the renewables?

1           COMMISSIONER HOCHSCHILD: Yeah. So, we're doing a  
2 workshop on November 8<sup>th</sup> for all the POU's on the IRP  
3 process, how they're making progress. I've invited E3 to  
4 come present as well, given their role, and we're also going  
5 to be looking at energy storage as part of that.

6           So, we have a couple of NGOs coming, as well.  
7 Concerned Scientists and Sierra Club have been, I think, two  
8 of the most active groups on the POU compliance. But that  
9 is now on the calendar. I believe that's also election day.  
10 So --

11           (Laughter.)

12           COMMISSIONER HOCHSCHILD: -- that'll be an  
13 eventful day on many levels.

14           COMMISSIONER McALLISTER: You'll have something  
15 non-election to think about.

16           (Laughter.)

17           COMMISSIONER HOCHSCHILD: Yes. A welcome  
18 distraction from the elections.

19           COMMISSIONER McALLISTER: Can I ask a question,  
20 Commissioner Hochschild?

21           COMMISSIONER HOCHSCHILD: Absolutely.

22           COMMISSIONER McALLISTER: Is this a portion of the  
23 IRPs or is this sort of encompassing the demand side as well  
24 as the supply side? Is this sort of the procurement?

25           COMMISSIONER HOCHSCHILD: It's just on the

1 renewable.

2 COMMISSIONER McALLISTER: Just procurement.

3 COMMISSIONER HOCHSCHILD: How are they going to  
4 meet the renewable goals?

5 COMMISSIONER McALLISTER: Just procurement. Okay.  
6 Great.

7 COMMISSIONER HOCHSCHILD: Yeah.

8 COMMISSIONER McALLISTER: Yeah, I got it.

9 CHAIR WEISENMILLER: Well, renewables and storage,  
10 both.

11 COMMISSIONER HOCHSCHILD: Yeah. Storage.

12 COMMISSIONER McALLISTER: Yeah, yeah. Okay.

13 Because this is one in a series for the --

14 CHAIR WEISENMILLER: One in a series. So, we've  
15 had transportation electrification.

16 COMMISSIONER McALLISTER: Yeah.

17 CHAIR WEISENMILLER: This will now be renewables  
18 and, obviously, we're trying to figure out the right  
19 venue --

20 COMMISSIONER McALLISTER: To coordinate some  
21 discussion.

22 CHAIR WEISENMILLER: -- to meet with the other  
23 sister agencies to deal with the energy efficiency issues  
24 doubling this year.

25 COMMISSIONER McALLISTER: Yeah, yeah. Thanks.



1 COMMISSIONER SCOTT: I have a question for us  
2 about our vision of how all of this rolls together and then  
3 up into, you know, the -- are we -- are you seeing separate  
4 components for each one? Are we going to try to figure out  
5 a way to kind of put it all together before we --

6 CHAIR WEISENMILLER: Well --

7 COMMISSIONER SCOTT: I don't know. I haven't  
8 really thought through --

9 CHAIR WEISENMILLER: Well -- yeah, I can't say  
10 any --

11 COMMISSIONER SCOTT: -- the specifics.

12 CHAIR WEISENMILLER: -- of us have thought through  
13 and, at this point, we're trying to get the pieces together.  
14 I think fundamentally the next IEPR --

15 COMMISSIONER SCOTT: Mm-hmm.

16 CHAIR WEISENMILLER: -- is really going to be  
17 focused on implementation of 350. And it's really going to  
18 be focused on integrating in starting with the forecast,  
19 which, like I said, is this sort of -- I don't even want to  
20 think about it's coming, but it's coming.

21 But then, integrating into that, programs and  
22 forecasts on transportation electrification, integrating in  
23 on it - the renewables part - the storage pieces, right? I  
24 mean, it's where the -- I think the IEPR has got to be where  
25 it all comes together into a coherent document, you know?

1 COMMISSIONER SCOTT: Yes.

2 CHAIR WEISENMILLER: And, as I said, where -- and  
3 presumably to the extent there are pieces of the low-income  
4 activity, which, you know, are left to be resolved, well,  
5 God bless us, there it is. And we do have this one workshop  
6 I committed to on renewable natural gas, which, at least  
7 when I committed, I got some sort of loose commitments from  
8 Picker and Mary Nichols that they would be at that workshop  
9 suffering through it, too.

10 But having said that, you know, it's going to try  
11 to deal with the question of whether the -- you know,  
12 obviously, the -- one of the things that we talked about is  
13 the short-lived climate pollutants that's going to require  
14 agriculture, particularly dairies, to really control methane  
15 emissions, and that legislation authorized some power  
16 projects by the ARB on trying to control that.

17 But an issue is, well, what do you do with the  
18 methane that you've captured? Is it something we use to  
19 produce more power, albeit relatively expensive power? Or  
20 is it something you convert to a transportation fuel?

21 COMMISSIONER SCOTT: Mm-hmm.

22 CHAIR WEISENMILLER: And so, somehow that question  
23 gets joined in a workshop, and then it will go from that  
24 workshop -- you know, ultimately, that's a -- you know, the  
25 good or bad news is, once the workshop's over, at some point

1 the PUC has to have an evidentiary hearing on that same  
2 topic.

3           So, it's more or less teeing up, but at least it's  
4 trying to set the context of, you know, which way is it  
5 going? You know, is it power or is it transportation fuel  
6 and a low carbon -- and, you know, at least my current bias  
7 is it's probably more transportation fuel. At least, as I  
8 talk to the various parties as we were shaping the  
9 legislation, you know, I mean, there was no one who was  
10 interested in buying the gas for power.

11           COMMISSIONER SCOTT: Right.

12           CHAIR WEISENMILLER: Or for -- you know, it's from  
13 ten to twenty bucks a million. So, it's -- you know, it's  
14 not -- you know, on the other hand, it looks like there are  
15 things you could do that makes it competitive as a  
16 transportation fuel.

17           COMMISSIONER SCOTT: Mm-hmm.

18           CHAIR WEISENMILLER: So, I think that's where --  
19 but that will be certainly one of the issues that's got to  
20 be thought -- worked out as part of that process.

21           COMMISSIONER SCOTT: Yeah. I think it's really  
22 helpful to know that we're contemplating using the IEPR as  
23 the place where all of this comes together, because that's  
24 what I was just -- I was trying to figure out. Like, where  
25 is the place that this comes together, and doing it in the

1 IEPR makes a lot of sense to me.

2 COMMISSIONER McALLISTER: Maybe you can set a  
3 workshop record next year.

4 CHAIR WEISENMILLER: Thanks.

5 (Laughter.)

6 CHAIR WEISENMILLER: What do you mean -- where are  
7 you going to be, right?

8 (Laughter.)

9 CHAIR WEISENMILLER: Anything else on this?

10 (No audible response.)

11 CHAIR WEISENMILLER: Let's go on to minutes.

12 Again, thanks, staff. Thanks a lot for your work.

13 COMMISSIONER McALLISTER: Thanks a lot, everybody.  
14 This is great.

15 CHAIR WEISENMILLER: Hopefully, we didn't terrify  
16 you as we talked about next year, but anyway.

17 (Laughter.)

18 COMMISSIONER McALLISTER: It's more motivation  
19 just to get that report finished and signed off on, right?  
20 Yeah, so.

21 (Laughter.)

22 COMMISSIONER SCOTT: I will move approval of the  
23 minutes.

24 COMMISSIONER McALLISTER: I'll second.

25 CHAIR WEISENMILLER: All those in favor?

1 (Ayes.)

2 CHAIR WEISENMILLER: Minutes are approved five to  
3 zero.

4 Lead Commissioner reports.

5 Commissioner Scott?

6 COMMISSIONER SCOTT: Sure. I have a -- just a  
7 couple updates for you, all of things that have been going  
8 on in the last few weeks. It's actually been incredibly  
9 busy.

10 On Sunday, actually, I went and participated.  
11 It's BMWs 100<sup>th</sup> birthday and they have been doing  
12 celebrations all around the world. They had a week in Santa  
13 Monica. They kicked off by opening up a keynote with Mary  
14 Nichols. That was on Tuesday or Wednesday of last week, I  
15 believe, and then they had a closing session on Sunday that  
16 I went to participate in.

17 It was a great opportunity because there were  
18 about 120 students that also came and participated in that.  
19 I pitched the Energy Commission as an awesome place to work.  
20 I was a little bit stressed -- stressed isn't quite the  
21 right word, but worried about the panel a little because it  
22 was the guy who did the vision for the next hundred years of  
23 what BMW vehicles could look like. You know, autonomous  
24 cars, really cool ideas.

25 And then, there was the CEO of Hyperloop to talk

1 about other ways of moving people around, and then there was  
2 me. (Laughter.) So, I really wanted to talk about some of  
3 the fantastic cutting-edge policy that this state has done  
4 in really trying to kind of capture some of the students'  
5 ideas, especially in terms of how you can -- you don't have  
6 to make the hyperloop to make a big difference in the  
7 transportation sector.

8           So, that was really cool. Maybe I'll send you  
9 guys some of the pictures of the cars. They have designed  
10 one that has the -- it's the most aerodynamic car in the  
11 world and it's -- they were able to put this cover over the  
12 front wheels that actually moves when the wheels turn. But  
13 having that cover over the wheels is what makes it more  
14 aerodynamic. So, the vehicles were revealed and they're  
15 very futurey-looking - really neat.

16           The other thing that was great - yesterday, we had  
17 the California Fuel Cell Partnership Executive Board meeting  
18 and they brought -- Honda brought the new Clarity Fuel Cell  
19 electric vehicle, and that was great to have a chance to get  
20 to test-drive that. They're going to be coming onto the  
21 market, they said, probably late this year.

22           We did -- and I'll leave this for the chair to  
23 highlight in his remarks, but last week we were down at  
24 Stanford and celebrated our fruitful partnership with the  
25 Department of the Navy and had a chance to really highlight

1 some of the work that we've done together.

2 One of the most exciting components, I think, is  
3 that the Navy has figured out all their installations here  
4 in California, they looked at their nontactical fleet and  
5 they're going to transform that fleet into all-electric  
6 vehicles.

7 It starts out with 205 vehicles. They got the --  
8 the leasing is actually going forward right now. They  
9 anticipate having those vehicles on base early next year,  
10 which is really exciting. And I'll let the chair give you  
11 the rest of the details on how our meeting with the  
12 Department of the Navy went.

13 Before that, we have a ports collaborative that  
14 the Energy Commission is hosting with the Port of San Diego,  
15 the Port of Long Beach, the Port of LA, the Port of Hueneme,  
16 the Port of Stockton, and the Port of Oakland.

17 We had an in-person meeting at the Port of Oakland  
18 last week and it was a nice chance to look over some of the  
19 projects that we've worked on together there, getting more  
20 electrification and cleaner vehicles into some of the port  
21 fleets.

22 We also had a really great report out from the  
23 Port of Hueneme on the lighting. So, they had applied for  
24 ECAA to get some lights, but as they continued to do some  
25 research and look at the lighting at the port, it's -- it

1 actually turns out that it is -- the return on investment is  
2 good enough that they're like, oh, actually, we don't need  
3 the ECAA grant. And so, they came and they talked to -- or  
4 the ECAA loan. (Laughter.)

5 And so, they came and talked to the other ports  
6 and said what they were doing on the lighting so that the  
7 other ports will have a chance to kind of look in and see  
8 whether that makes sense there. So, it's -- so, even though  
9 we wanted to work together on the program, it's a -- I think  
10 it's a great success story that we didn't actually need to  
11 work together (laughter) on that program.

12 I had a chance to go do a ribbon cutting at  
13 Crimson Renewables Biofuels. This will be up to 24 million  
14 gallons annually of biofuels. It'll be the biggest  
15 biofuels - at least right now - in California, which is just  
16 fantastic.

17 Energy Commission funding, of course, helped  
18 get -- kick that project off, get that project off the  
19 ground, and enabled them to raise quite a bit of private  
20 capital.

21 It's in -- it's just outside of Bakersfield, too,  
22 and so it's -- what they've been able to do at their  
23 refinery is -- it's on the site of an old refinery, so folks  
24 who used to work there can come back to work but now they're  
25 working on biofuels instead. So, I think that that's pretty



1 exciting.

2           And then, I had a chance to go to an event with  
3 Senator Hueso and Assembly Member Shirley Webber in  
4 San Diego is Groundwork San Diego. They received an EPIC  
5 grant from us as part of the EPIC challenge. And what  
6 they're going to be doing is looking at how to put together  
7 a zero net energy community.

8           Groundwork San Diego is really, really excited  
9 about this project. They have plans to reach out to the  
10 entire community, and also they're going to collude a little  
11 bit broader. They're going to try to reach out through some  
12 of the schools, which is really exciting.

13           Some of the schools are kind of out -- some of the  
14 schools have kids that are -- and families that live outside  
15 of kind of, like, the exact project boundaries, but they  
16 want to bring them in and include them as part of the  
17 discussion and dialogue.

18           And, you know, it's just -- it's really exciting  
19 because not only do we need our low- and moderate-income  
20 communities to be included in this clean energy revolution,  
21 but in this community, they are leading the way, they're  
22 leading the way for us. And so, that was just a really fun  
23 event to get to go and do and kick off.

24           So, that -- are a couple highlights of things that  
25 I've been doing.

1 CHAIR WEISENMILLER: Great.

2 COMMISSIONER McALLISTER: Awesome. That's  
3 amazing.

4 So, just to -- I'm going to brief as I can. I  
5 just want to highlight a great work that staff's been doing  
6 on the AB 802 stuff and some sticky issues about sort of  
7 coverage and, you know, nuts and bolts of the benchmarking  
8 and the reporting and the public disclosure, certainly.

9 I just -- I'm very optimistic that that program is  
10 going to complement all of the things that we've been  
11 talking about to sort of get us better information and more  
12 understanding and knowledge about the building stock, which  
13 to go out there and double efficiency in those buildings, it  
14 allows us to then take -- to promote the next steps, whether  
15 we do them or whether the programs go -- make the link to  
16 actions and programs, make the link with financing, sort of  
17 help that building stock get projects scoped and installed.

18 The fundamental sort of first step is benchmarking  
19 and knowledge about the building, and every building --  
20 existing building is different. So, I'm very excited about  
21 that program. I think it's really a nation-leading program  
22 and it's got a huge group of stakeholders that are very  
23 interested and invested in its success, both here in  
24 California - most of them - but also across the country,  
25 that are bringing their knowledge and experience, but also

1 their sort of desires for us to take a step further than the  
2 existing programs so that they can then feed that back into  
3 what they're doing, and they have kind of a virtuous cycle.  
4 So, I'm very excited about this.

5           And part of that is just staff doing, you know,  
6 just -- I'll nerd out just for five seconds. Things like  
7 data exchange protocols and communication between  
8 databases, you know, and the way information comes in and  
9 gets layered into IT tools so that it can actually be  
10 usable - these are things that California has pioneered over  
11 the last twenty years in the IT space. They are just  
12 innovation that has happened that we can harvest.

13           And so, it's pretty exciting to sort of be  
14 ushering in that -- these approaches, I think, at the Energy  
15 Commission. It's a bit overdue, but it's also, you know,  
16 never too late. And so, I think there's a moment right now  
17 where -- you know, with 350 and with all the other kind of  
18 stepping up what everybody has to do. The moment is just  
19 kind of right to concede and get this done well.

20           So, I guess a few things I've done over the last  
21 month are just worth highlighting. I've been kind of -- I  
22 feel like I've been doing a roadshow on kind of cutting-edge  
23 buildings focused on builders and then a couple of events.

24           So, a couple of weeks ago, I went to the -- in the  
25 lead up to Greenbuild -- the week of Greenbuild, there was a

1 preliminary workshop for builders. You know, it was  
2 Builders Sustainability Forum. And I was just really  
3 impressed with how builders are understanding that their  
4 product -- now these are -- for the most part, these are  
5 leading builders, but not all of them in terms of just, you  
6 know, sort of a marketplace. They're also -- you know,  
7 builders really in the middle of the marketplace are  
8 starting to realize that their product has a brand that does  
9 include kind of greenness and sustainability and that they  
10 can sell those and they sell faster, they sell at slightly  
11 higher prices, and there are mechanisms that they can, you  
12 know, do well by doing good, and I think that their  
13 understanding of the marketplace is evolving in a good  
14 direction in this.

15           So, they're, you know, for the most part, not  
16 antagonistic to, you know, regulatory approaches or the  
17 Commission's sort of ushering of this discussion to try to  
18 push them a little bit harder. I think they're actually  
19 pretty open to it and a lot of them are doing it. So, there  
20 were some great examples of builders that were finding a  
21 niche in that sort of green building marketplace without a  
22 huge cost premium, which is terrific.

23           And then, Greenbuild actually was on a panel  
24 with -- well, it was on a panel about essentially zero net  
25 energy. And it's interesting the way that conversation is

1 evolving, too. You know, we've had this policy goal - not a  
2 statutory goal but a policy goal to, in the residential, you  
3 know, by 2020, get our buildings moving towards ZNE.

4 And I think a lot has happened in that decade in  
5 between and we're in a position where we can really, again,  
6 take advantage of markets, take -- for -- particularly for  
7 renewable energy on the supply side. And there's just so  
8 much technology, you know, the costs are coming down on the  
9 energy efficiency side.

10 And so, you know, this 2019 and Beyond is going to  
11 be a really nice forum for kind of fleshing some of that out  
12 and, frankly, also understanding the impact of our, say,  
13 cost-effectiveness requirements and things like that on how  
14 we can manage that discussion around zero net buildings.

15 And then, the week after, there was sort of a --  
16 there was a conference that was really about -- well, it's  
17 called Getting to Zero. It's another, you know, discussion  
18 with pretty -- the leading advocates on low energy and high  
19 performance buildings. So, it was also going to helping me  
20 take the pulse of that conversation.

21 So, I feel pretty up to date on this issue and I  
22 think managing the conversation as we go through 2019  
23 towards, you know, incorporating zero net into code in some  
24 way and then figuring out what the sort of program  
25 approaches to help the marketplace do what it needs to do to

1 get there, I think, are -- it's going to be a very  
2 interesting and fruitful discussion.

3 So, really, it feels like I was taking the pulse  
4 of that community and I'm feeling pretty up to date.

5 Let's see. The last thing I want to say is -- and  
6 it was really related to the item on 350 and the 802  
7 benchmarking. I have actually been talking to the leading  
8 utilities on the IT on getting -- you'd imagine builders are  
9 going to be coming to the utilities asking for their whole-  
10 building energy information, and the statute says they have  
11 to get it within thirty days.

12 And so, the utilities have not had that IT really  
13 in place, and now we're expecting them to have it in place  
14 and they assure me that they're going to get a system in  
15 place by January 1<sup>st</sup>, and then continue to improve it over  
16 time so that the builders -- the building owners and their  
17 agents can get whole-building consumption information  
18 quickly and easily.

19 And that -- for me, that is right up there at the  
20 top of the accomplishments of AB 802 - just liberalizing  
21 that process or just simplifying that process. So, we're  
22 going to have a lot more buildings that have access to that  
23 information.

24 Finally, I would like to thank Pat Saxton. He's  
25 right there in the audience. He has been really a stalwart

1 advisor for me for the last three years or so. I guess I  
2 should have figured that out before the meeting, but it  
3 seems -- you know, it's hard to kind of imagine -- it's hard  
4 to remember the past that Pat wasn't in my office.

5 But it really has been -- I think at some point I  
6 called Pat, MacGyver, and it totally still applies. And Pat  
7 went back to Division in the Appliances Office, and I just  
8 want to thank him for being a star in my office and really  
9 helping work through a lot of the sticky issues, managing  
10 stakeholders, and doing it with a level of competence and  
11 civility and respect just on all fronts. You know,  
12 primarily technical is kind of, you know, the role -- that  
13 sort of main role, but really just such a broad skillset  
14 that Pat brought to the tasks and really made my life a lot  
15 easier and I think made our products more effective and  
16 higher quality just across the board.

17 So, I want to just say thanks. Next meeting, I'll  
18 be announcing sort of who is going to fill the spot and, you  
19 know, there will be some pretty significant expectations for  
20 that person.

21 (Laughter.)

22 COMMISSIONER McALLISTER: So -- but that's a good  
23 thing. Right? So, anyway, thanks, Pat. And, if you want  
24 to say something, you're more than welcome, but you  
25 obviously don't have to.

1 COMMISSIONER HOCHSCHILD: Pat, I have to say, I'm  
2 impressed you've made it down to the Division, because you  
3 had to walk by these other Commissioners' offices and didn't  
4 get grabbed to be an advisor for another Commissioner.

5 (Laughter.)

6 MR. SAXTON: Thank you for saying such nice words.  
7 I enjoyed it and am looking forward to continue working with  
8 everyone. Thanks.

9 COMMISSIONER McALLISTER: Thanks, Pat.

10 COMMISSIONER HOCHSCHILD: Thanks, Pat.

11 CHAIR WEISENMILLER: Thanks for your public  
12 service.

13 Commissioner Douglas?

14 COMMISSIONER DOUGLAS: All right. Thank you.

15 I have a couple things to report. Obviously, at  
16 the last month's Business Meeting, Chair Weisenmiller  
17 discussed the fact that I had missed the meeting because of  
18 the finalization of the Record of Decision for DRECP. So, I  
19 thought I'd mention that, even though it has been mentioned.  
20 Thank you. It was a very good day.

21 And, since then, on October 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup>, I had  
22 the opportunity to go speak at the Offshore Wind  
23 International Partnering Forum, which was held in Rhode  
24 Island and which is organized by an industry association  
25 that organizes supply chain manufacturers of different



1 components of offshore wind technology.

2 I had a chance to spend time with some of the lead  
3 state representatives from a number of the East Coast states  
4 that have really done a significant amount of work in this  
5 area and are in many ways very much ahead of us in thinking  
6 about offshore wind as an opportunity.

7 And, of course, a lot of that is because we have  
8 this real embarrassment of riches in other renewable energy  
9 technologies, from solar wind to onshore wind and  
10 geothermal, and, on the East Coast, they don't have some of  
11 those same opportunities.

12 They also have more shallow water and so the  
13 existing fixed-bottom technology is something that has made  
14 sense as New York and Massachusetts and other states look at  
15 renewable energy and climate goals - they're looking very  
16 hard at offshore wind and, especially in the case of  
17 Massachusetts, making some pretty big commitments that I  
18 think will help really drive the technology and drive the  
19 cost down.

20 On October 13<sup>th</sup>, both Commissioner Hochschild and  
21 I attended the first task force meeting. It's a meeting  
22 that Governor Brown wrote a letter to Secretary Jewell to  
23 establish this task force. It's a joint state and federal  
24 task force, led by the Bureau of Ocean Energy Management and  
25 the state of California.

1           And this first meeting helped really kind of lay  
2 some groundwork for the kind of partnership on exploring the  
3 offshore wind opportunity in general through both efforts to  
4 deal with existing potential commercial interest in --  
5 that's already surfaced at BOEM and also some planning and  
6 other approaches to really get stakeholder engagement and  
7 get a better sense of where off the California Coast might  
8 make sense and what are some of the potential issues that  
9 any project could run into in the permitting process and how  
10 might those issues be dealt with?

11           And it's interesting because there are some real  
12 parallels in some ways to some of the public lands' work  
13 that was done with solar permitting on Bureau of Land  
14 Management land in the sense that -- where you really see  
15 the offshore wind opportunity.

16           It's federal waters, so you've got a federal  
17 agency that's in a kind of lease relationship with the  
18 industry and, of course, they do environmental review of the  
19 leases. And they have a level of planning as well as  
20 environmental review mandate. And, similarly to the desert  
21 planning that was done, there are very significant  
22 Department of Defense equities and concerns that are going  
23 to need to be discussed in this process, as well as  
24 environmental and scientific unknowns and tribal outreach  
25 and related issues.

1           So, I think there really are some interesting  
2 parallels.

3           CHAIR WEISENMILLER: No Desert Tortoise?

4           COMMISSIONER DOUGLAS: No Desert Tortoise, but  
5 there are whales.

6           CHAIR WEISENMILLER: Mm-hmm.

7           COMMISSIONER DOUGLAS: There are many kinds of  
8 whales that migrate up and down our coast, and whether  
9 cables anchoring floating platforms to the seabed affect the  
10 sonar of the whales in any way will be one of many questions  
11 asked about this particular technology. But no Desert  
12 Tortoise. There are sea turtles, of course.

13           (Laughter.)

14           COMMISSIONER DOUGLAS: And so --

15           CHAIR WEISENMILLER: A new picture for our office,  
16 right?

17           (Laughter.)

18           COMMISSIONER DOUGLAS: I think I may need to get a  
19 picture.

20           COMMISSIONER McALLISTER: Yeah, does this mean  
21 you're going to be a -- instead of tramping around in the  
22 desert, you're going to be scuba diving?

23           COMMISSIONER DOUGLAS: I don't scuba dive. I did  
24 get a certification. I've scuba dived once, but the cold,  
25 deep water off the California coast is a little daunting for

1 me. So -- I have, however, had the opportunity to see the  
2 first facility -- the first offshore wind facility in the  
3 US, which is off Rhode Island and off of Block Island. And  
4 I did get to take something like a three-hour boat ride  
5 there and I did not get sick, although --

6 (Laughter.)

7 COMMISSIONER DOUGLAS: -- you know, some people  
8 did and I, you know, was reminded of some of the challenges  
9 of working in an ocean environment because -- in any case,  
10 it's very, very interesting. And I think Commissioner  
11 Hochschild will have something to say on that topic, as  
12 well, in his report.

13 I had the opportunity on Friday to go to the  
14 Mesquite Solar 3 dedication, which is a 150-megawatt project  
15 that represents the largest renewable energy purchase by the  
16 Department of the Navy. And it will help power about  
17 fourteen navy and marine bases in California.

18 SDG&E is one of the partners. The -- it's in  
19 the -- it's actually in Arizona and close to the Palo Verde  
20 Nuclear Facility in an area where there has been a  
21 significant amount of renewable -- or not renewable. Some  
22 renewable and some conventional gas and other energy  
23 infrastructure.

24 We have, as has been noted in these reports  
25 earlier -- you know, we just executed an MOU with the

1 Department of the Navy and the state of California has been  
2 a -- has a very longstanding and good relationship with the  
3 navy as they move to meet their renewable energy targets.

4 So, I think that's my report. Thank you.

5 CHAIR WEISENMILLER: Thank you.

6 Commissioner Hochschild?

7 COMMISSIONER HOCHSCHILD: Cool. First, let me  
8 just say how grateful I am to Commissioner Douglas for  
9 lending her expertise to this wind task force and, if we do  
10 lose you from the Commission at the end of next year, I am  
11 hoping we can get as much of your input as possible on all  
12 the planning that has to take place, because it's already  
13 been invaluable.

14 We've been working with the governor's office and  
15 the Bureau of Ocean Energy Management and others for the  
16 last year on this. The first task force meeting happened  
17 last week.

18 I would just point out, you know, one of the  
19 things about offshore wind -- it is actually a new era that  
20 we're in now. The technology is different because you --  
21 they can float. And so, this means that you set the  
22 turbines thirty miles offshore and at that point they're  
23 invisible from the shore, which really removes one of the  
24 main barriers and the avian impact goes way down.

25 I think the threshold issue may be the question of

1 whether there's -- on these three high-tension cables to the  
2 seabed, when you attach the plates to those cables for the  
3 whales, does it actually work and the whales detect, you  
4 know, that with their sonar?

5 And that's the kind of research question. We have  
6 20,000 gray whales that do this migration annually. But I  
7 will be going to spend all week next week at Rhode Island at  
8 this wind conference as well as all the other states, and  
9 we're going to be seeing the turbines there.

10 There's -- the advantage of these turbines is  
11 they're much larger. What dictates the size of wind  
12 turbines installed on land is literally the ability of a  
13 truck to carry the blade. And so, when you -- and that's  
14 why we're, you know, basically in the two to two-and-a-half  
15 megawatt size range now.

16 Offshore now, these are six megawatt turbines that  
17 are installed in Rhode Island - the first project in the US,  
18 but they're going now to eight megawatts and eventually up  
19 to ten and possibly twelve, so you have many fewer turbines  
20 that can get installed and the resource is much better. So,  
21 it's about thirty-five percent capacity factor on land,  
22 close to fifty percent offshore.

23 So, anyway, I'm particularly grateful to  
24 Commissioner Douglas for all your incredible input, and it's  
25 just the right timing with the TOCP (phonetic) wrapping up.

1           So, I've been doing a lot of talking. I feel --  
2 you know, this job is different than I thought. I thought  
3 we'd be having, like, a lot more meetings and, you know,  
4 getting a chance to, you know, collaborate, so we'd meet  
5 together once a month. I had no idea that it would be this  
6 much public speaking, so I'm getting sick of hearing myself  
7 talk and that's probably the opinion shared by my  
8 colleagues.

9           (Laughter.)

10           COMMISSIONER HOCHSCHILD: But there has been Verge  
11 Energy Storage Conference, US Davis, Accord,  
12 (indiscernible), and others, but there's just a ton of  
13 interest in what's happening in renewables from other states  
14 and it's a really exciting time. So, I think it's time well  
15 spent.

16           A few other highlights. I've been spending some  
17 time lately with Dan Kim, the new head of DGS, who's  
18 absolutely fabulous. He is, you know, hellbent on trying to  
19 green our facilities. I suggested he go to visit the  
20 Bullitt Center in Seattle, which is the greenest commercial  
21 building in the world, apparently, according to folks who  
22 rate these things.

23           It was built by Dennis Hayes, who founded Earth  
24 Day, and it's a remarkable facility - zero net energy. They  
25 actually, you know, recycle their own water onsite and so

1 forth. And he just came back from there, but he's hired a  
2 terrific woman who many of us know, Nancy Jenkins, who comes  
3 out of Edison? Yeah, yeah, yeah. And is now the lead on  
4 sort of green buildings and I had a chance to meet with her  
5 and she's off to the races.

6 Also, I've been working with High-Speed Rail. The  
7 chair and I signed an MOU with them some time ago. We're  
8 taking the High-Speed Rail executives, doing, actually, a  
9 similar tour that we did with the Mexican delegation, to  
10 Silicon Valley for a clean energy tour to meet with clean  
11 energy developers, tour the Tesla factory, sort of some of  
12 the thought leaders in that space as they move toward their  
13 planning.

14 They've made an agreement to do 100 percent  
15 renewables and for every single facility to be a ZNE  
16 building. So, BART has actually done some stuff they can  
17 learn from, so that's been a good engagement and I'd love to  
18 bring them in here, as well, and a chance to visit with you  
19 and others here who are able to meet with them.

20 I would also just encourage anyone who's here  
21 tomorrow to come see our guest speaker, Jackie Pfannenstiel,  
22 who was chair of the Energy Commission, went on to be  
23 Assistant Secretary of the Navy in charge of facilities, and  
24 really, you know, I believe was also first woman chair of  
25 the Energy Commission, if I'm not mistaken.



1 CHAIR WEISENMILLER: Yes. The first woman chair  
2 and, obviously, she started out at the PUC.

3 COMMISSIONER HOCHSCHILD: Right. Right.

4 CHAIR WEISENMILLER: And went to PG&E and ended up  
5 at a strategic planning there.

6 COMMISSIONER HOCHSCHILD: Right.

7 CHAIR WEISENMILLER: A very distinguished career.

8 COMMISSIONER HOCHSCHILD: A distinguished career  
9 and really played, you know, a critical sort of seed-  
10 planting role. I mean, Andrew and I first met on the New  
11 Solar Homes Task Force, helping to design that program - you  
12 know, a decade ago under her stewardship, and that's really,  
13 you know, borne a lot of fruit. So, I'm happy to welcome  
14 her.

15 COMMISSIONER McALLISTER: Well, actually, so, Tim  
16 Tutt, who was her right arm on this stuff --

17 COMMISSIONER HOCHSCHILD: Right. Yes.

18 COMMISSIONER McALLISTER: -- is right over there.  
19 So, yeah.

20 COMMISSIONER HOCHSCHILD: Tim is here.

21 COMMISSIONER McALLISTER: We're all a little bit  
22 grayer and --

23 COMMISSIONER HOCHSCHILD: She'll be here at eleven  
24 o'clock.

25 COMMISSIONER McALLISTER: -- or a little bit

1 balder maybe. I don't know. I am.

2 (Laughter.)

3 COMMISSIONER HOCHSCHILD: So, I guess, you know,  
4 one other thing I can share with the group that --  
5 Commissioner McAllister and I have spoken about this briefly  
6 already, but one of the things I feel very strongly about as  
7 you look at the amount of new solar that's coming out  
8 particularly of DG Solar.

9 We have, you know, over half a million systems now  
10 and many more on the way, and just, you know, so folks know,  
11 like, the latest -- when I got into the solar field in 2000,  
12 modules were five dollars a watt. So, the latest pricing  
13 out of the solar conference last month is thirty-eight cents  
14 a watt. So, totally different landscape pricewise.

15 But we need to make sure that the solar that is  
16 coming onto the grid is able to support the grid, basically  
17 be a good citizen of the grid, and that really means having  
18 smart capabilities in the inverter, which is, in my view,  
19 basically telemetry and voltage regulation, and those  
20 features are actually very, very affordable. It's only a  
21 few dollars extra in the inverter, so we're going to be  
22 discussing ways to get at that goal.

23 CHAIR WEISENMILLER: Anything you can do to make  
24 sure that, as the old inverter's dye, they replace the smart  
25 ones.

1 COMMISSIONER HOCHSCHILD: Well, that's -- that's  
2 exactly --

3 CHAIR WEISENMILLER: I mean, I was -- it's not  
4 as -- because you said that growth is not exponential --

5 COMMISSIONER HOCHSCHILD: Right, exactly. And  
6 there's, you know -- there's a possibility for a Title 20  
7 play, where we just basically require that, and there's a  
8 possibility for us to use the eligible equipment list as  
9 another sort of vehicle for that, which is now, you know, a  
10 condition of interconnection. But we've got to make sure  
11 we're doing this in a way where we, you know -- sort of no  
12 regrets, right? Where we -- looking back, like, five years  
13 from now, what do we wish we would be doing right now?

14 And I think, you know, Hawaii is a good example of  
15 what can go wrong and also what can go right, because they  
16 were able through, you know, -end-phase, which does have  
17 that capability to actually help our -- deal with some of  
18 the problems on the grid.

19 So, give some thought to that and I think I'll  
20 stop with that. Thanks.

21 CHAIR WEISENMILLER: Yes, so I'm just going to hit  
22 a couple of things. I mean, first, just to sort of --  
23 this -- some -- okay, so just in terms of some news stories,  
24 then I'll go into things I've been involved in. First, I  
25 wanted to make sure everyone saw that, yesterday, Sinassi

1 (phonetic) said that Baja is looking at joining the IM.

2 COMMISSIONER DOUGLAS: Mm-hmm.

3 COMMISSIONER SCOTT: Wow.

4 CHAIR WEISENMILLER: Which, again, is -- there was  
5 a -- there is a specific provision in the landmark Mexican  
6 legislation oddly regulating electricity sector  
7 contemplating that. So, again, it's been something in the  
8 works. There's been a lot of hard work on it. But, again,  
9 that was really a nice step forward.

10 Also, I wanted to point out that, you know,  
11 yesterday, the Department of Energy and FEMSA issued their  
12 report on the implications of Aliso Canyon. I can't say  
13 I've gone through it in great detail at this stage.

14 You know, I think -- you know, certainly, Aliso  
15 Canyon was a wake-up call generally on the connection  
16 between power and gas and Senators Boxer and Feinstein asked  
17 DOE to look into it. It was -- the question was framed in a  
18 way that it could have been one of those how did California  
19 screw up investigations.

20 And they worked pretty closely with us all along  
21 and the report could -- you know, the good news is it comes  
22 to very similar conclusions to what we came up with. One is  
23 that, you know, there's a lot of storage fields play a major  
24 role both in gas and power. There's a lot of those  
25 throughout the country.

1           Aliso Canyon is, like, the fifth largest, but, I  
2 mean, bottom line -- it's, like, the only large storage  
3 field in the U.S., bottom line. A lot of them are from  
4 older technology, pre-1980. Some of them are from, old oil  
5 wells. And, you know, there's implications -- you know,  
6 there are safety implications of that, certainly safety and  
7 leakage.

8           And so, you know, the FEMSA is going forward on  
9 setting national standards. There -- they -- I'm going to  
10 say they are similar to what Darger (phonetic) has done,  
11 although, again, I'm not going to purport to either have --  
12 to have lined it up or, even if I did, to know where the  
13 nuances are. But, generally trying to get away from signal-  
14 fault failure.

15           You know, if you think about it, at Aliso they  
16 were pulling gas through the center and also through --  
17 around the edge. And so -- and one of the changes has been  
18 to say, no, you only go through that center tube, and that's  
19 where they want to move generally, nationwide.

20           They also looked at the reliability implications -  
21 so, obviously, the connection between gas and power and the  
22 two markets is complicated. They did identify other fields  
23 that can have reliability implications. I will point out  
24 one of them is McDonald Island, PG&E's facility; the rest of  
25 them are more along the Gulf Coast. And, anyway, it's -- as

1 we come up to the first anniversary of Aliso, that's  
2 certainly something that -- people are thinking about the  
3 implications -- it's a very strong effort.

4 I would say a lot of the conclusions, particularly  
5 on the well type of stuff, I mean, we've relied a lot on the  
6 national lab experts who were involved in the Gulf spill to  
7 help us, and not too surprisingly, they were the ones  
8 helping DOE and FEMSA on their evaluation. So, anyway,  
9 that's out. Certainly, you'll hear more about it. It's an  
10 important study.

11 I think, in terms of the things I was going  
12 highlight that I'd been involved in, first is, as  
13 Commissioner Scott said, we had a great event with the Navy  
14 last week and, again, I thank Commissioner Hochschild for  
15 prodding me to really get more visibility in this area.

16 We had it at the Hoover Institute with Secretary  
17 Shultz. We ultimately signed an MOU; Albert's shop did a  
18 great job, particularly Sandy and Katie in terms of -- and  
19 Michael, getting the story out on that. We had a --  
20 basically, a plan to highlight some of the things we've been  
21 doing with the Navy, you know, and sort of a series of blogs  
22 going up to the event.

23 We have -- I'm trying to play sort of an  
24 (indiscernible) joint op ed between Secretary McGinn and I,  
25 but, you know, I think we've set the record for the Twitter

1 reactions from that event.

2 (Laughter.)

3 CHAIR WEISENMILLER: You know, and I think all of  
4 you have seen from Sandy the list of the coverage we've  
5 gotten, and they -- the framing we did in terms of videos,  
6 photography, and statements.

7 So, that was a really nice event, and also I -- as  
8 Barry mentioned, I had the -- I chaired the fifth workshop  
9 on the governance issues on -- for the ISO, Cliff and I did,  
10 on Monday, getting the reaction of the people to the ISO has  
11 made significant changes to that. Generally, the reactions  
12 were pretty positive. And, you know, we did have Sue  
13 Kateley and Jay Dickerson there to talk about the  
14 legislative connection.

15 COMMISSIONER HOCHSCHILD: Can you share a little  
16 more about where you see that heading? I mean --

17 CHAIR WEISENMILLER: Wow, yeah, I mean --

18 COMMISSIONER HOCHSCHILD: It's a big question, but  
19 I don't know if there's --

20 CHAIR WEISENMILLER: No, I mean, the governor's  
21 put a -- the governor (a) as you know, has put a high  
22 priority on this, you know, and (b) we sort of stepped back  
23 from trying to push it through this year. I mean, part of  
24 it was the studies had to be done, and the studies are done,  
25 you know. And, actually, to some extent, I was surprised

1 the ISO met the schedule on those.

2 They were very -- pretty challenging analysis,  
3 pretty tight schedule, and the concern has always been that,  
4 you know, if there had been a legislative move to August and  
5 the studies were still somewhere, cranking along, we  
6 probably would have -- anyway -- been disappointed, shall we  
7 say.

8 So, anyway, the studies are out. I think they  
9 make a very strong case for the savings, and it's not too  
10 surprising that, you know, you're already talking about  
11 various significant savings for California, or very -- and  
12 you're also talking about those savings resulting in a lower  
13 cost -- lower rates, which benefit low income. And, when  
14 you look at the environmental impacts, there are significant  
15 reductions in air pollution in the L.A. Basin and  
16 San Joaquin.

17 Now having said that, as you know, power plants  
18 are a small part of the pollution in the L.A. Basin and  
19 San Joaquin, and so -- I forgot what they were saying. It  
20 was, like, a third or -- you know, pretty significant  
21 reduction in power plants, but when you say power plants,  
22 only two or three -- you know. It's like a two or three  
23 percent impact on the South Coast because power plants are  
24 not the major source of air pollutions. Same on --

25 So, anyway, it's a win-win in that sense. And the



1 studies were pretty conservative. You know, I think people  
2 are still fighting over the assumptions, and the way I look  
3 at it -- I mean, for years, right, when we did these  
4 (indiscernible) for banks, I was the one who got to sign the  
5 affidavit saying, this represents my professional judgment  
6 for why you should invest hundreds of billions of dollars in  
7 this project. And so, it was always this question of, oh,  
8 my God, let me go back and see how the forecast holds up.

9           So, you know, there's always an uncertainty, but I  
10 guess what I'm saying is that the forecast was pretty robust  
11 on significant savings. The big issue is governance, you  
12 know? It's sort of -- again, and there's sort of two  
13 aspects of that. One is -- as you know at this point, the  
14 Board of Governors is appointed by the governor and  
15 confirmed by the senate -- state senate. So, if you were,  
16 say, in Utah or even Oregon, you would want a piece of that  
17 action in some fashion, you know?

18           And, at the same time, you know, there's a real --  
19 I mean, our job as regulators is the ways to make sure the  
20 utilities reflect the cultural values, you know, of -- you  
21 know, PG&E has to reflect the values of San Francisco,  
22 right? You know, PacifiCorp has to somehow reflect the  
23 cultural values of Portland, Seattle, and Salt Lake City.

24           Now, how they do that, I don't know (laughter),  
25 but that also means that, as you try to do this regional

1 organization, you're trying to respect the cultural values  
2 of the -- the value, right? Because at the west, which is  
3 quite different.

4 And you're also dealing with, you know, the  
5 reality -- we have some states that love solar and some  
6 states that love coal. Or at least it's a key part of their  
7 economy. And somehow trying to respect those differences  
8 but maintain our (indiscernible) values. You know, this  
9 is -- this is a way to enable renewables throughout the  
10 west; it's not a way to prop up coal plants in other states.  
11 You know, and we're caught up now in some of the greenhouse  
12 gas accounting.

13 You know, that's sort of -- on the one hand, the  
14 one thing we know for sure is every kilowatt hour of  
15 renewables that goes out of the state that otherwise would  
16 have been curtailed is reducing greenhouse gas emissions,  
17 right?

18 We're not -- having said that, there's a lot of  
19 focus not on that, those savings, but focus is on what --  
20 how is the dispatch going on in PacifiCorp? What would have  
21 happened but for EIM? And, somehow, we're just getting the  
22 clean stuff and the dirty stuff is going elsewhere, so sort  
23 of second-order effects.

24 So, the more you get into this thing, you know,  
25 the more time you can invest trying to understand it. I've

1 spent a lot of time, actually, with the Air Board on one  
2 side of me and the ISO on the other side, trying to work  
3 through some of these issues. But I think it's -- at this  
4 point, we should have everything out of the way for a  
5 really -- a serious legislative effort next year.

6 And it's not going to be easy. There's a -- the  
7 wind industry has hired -- put together a lot -- a strong  
8 lobbying effort, Fix the Grid. You know those folks? You  
9 know, AEE is in that. And it's a very strong clean  
10 technology lobbying effort to say, this is the case for why  
11 you want to do this, and realize there's some difficulty  
12 from California giving up some of its control of the ISO,  
13 right?

14 COMMISSIONER HOCHSCHILD: Right.

15 CHAIR WEISENMILLER: I mean, that's the real --  
16 can we transform this into a regional organization? And if  
17 we do -- if we can work out how to do that in a way that's  
18 acceptable to us as well as other states, you know, it's  
19 really amazing what we'll achieve.

20 But, having said that, this is definitely one  
21 where the devil is in the details and particularly that  
22 political dynamic.

23 COMMISSIONER HOCHSCHILD: I would just say I think  
24 for the concern about governance within California is not so  
25 much that it's, you know, California people on the Board,

1 but that our renewable and clean energy goals are advanced  
2 rather than undermined.

3 And I just think that is really about making the  
4 case -- you know, I think the best way to shut down dirty,  
5 inefficient old coal plants is to have them compete against  
6 zero marginal cost renewables.

7 CHAIR WEISENMILLER: Oh, yeah. Yeah.

8 COMMISSIONER HOCHSCHILD: And, you know, that  
9 that's what you get with regionalization. You know, I mean,  
10 you can't justify keeping a plant open, you know? I mean --

11 CHAIR WEISENMILLER: Yeah. Now, there's two  
12 aspects of it. I mean, that's certainly what I mean and  
13 it's certainly one where I know is -- you know, it's  
14 certainly in a position of an AEE Tom Steyer debate is,  
15 yeah, you've got to expose it to market forces.

16 The other thing is there's always this question of  
17 why are we trying to deal with these other states? They're  
18 not -- they don't really hold to California values and, you  
19 know, as you and I know, you really have to go to where the  
20 coal is to displace it.

21 I mean, you know -- I mean, God knows the governor  
22 and I go to China, right? And China's values are nowhere  
23 close to California's, but we go to Mexico and, again, the  
24 difference is there, but if you're really trying to affect  
25 climate change on a global level, you've got to be reaching

1 out to people, you know, that are different -- they're using  
2 coal. And so, that means not just China but Utah. So,  
3 right?

4           You know, but it's not over, but it's -- I think a  
5 lot of progress has been made this year, frankly, on the  
6 analytics, but also on basically the legislative  
7 understanding. You know, we obviously won 350 and I went  
8 through -- Dana and I were working with people to get that  
9 language in.

10           Obviously, we were hoping to get a little bit more  
11 expansive than what the language accomplished, but it's a  
12 tough topic for the Legislature. The Legislature needs the  
13 time to understand it, really get their arms around it, and  
14 certainly -- like I say, the other issue, which I should  
15 flag for everyone, is that, while we've been going through  
16 this process on governance -- I don't know if you know of  
17 the organization, SPP, which is a similar independent system  
18 operator.

19           It's located in Arkansas, to give you some idea of  
20 the different cultural perspectives. And they are -- have  
21 been very successful. They've picked WAPA as a member more  
22 in that sort of part of the country. They're making a  
23 serious run at Colorado for -- and, you know, basically  
24 would like to have a foothold and become a competing  
25 organization.

1           You know, so it's going -- it's in some respects  
2 easier for Arkansas to go to - fill in the blank - Salt Lake  
3 City and say, join us. We've got your cultural values.  
4 And, if you think about how the western grid is like a  
5 donut, losing that other half of the donut to that area  
6 would certainly reduce the efficiency of the overall  
7 dispatch, but, again, just to the extent with the clean  
8 power plant, we're trying to present Cap-and-Trade, ISO, the  
9 regional market as a way for enabling the other states in  
10 the west to really move strongly towards renewables. This  
11 would allow them to stay more in their comfort zone, I  
12 think.

13           So, as I said, we're at position where, if we  
14 don't move, I think it's going to -- the opportunity is  
15 going to slip away. But, you know, I think with the energy  
16 imbalance market, you know, they've just gone live with  
17 Arizona and Puget, there's more flung at them for next year.

18           Now, with Baja lined up, you know, it's just sort  
19 of a very natural evaluation for EIM to expand west-wide and  
20 then to build that into the next step on the regional. But,  
21 it's -- you know, it's still a lot of work to pull it off.  
22 It's certainly been one of my high priorities, as you know.

23           Okay. Let's go to the Chief Counsel's Report.

24           MS. VACCARO: I think -- I would just note that we  
25 will be going into closed session today on the Electricore

1 matter that is identified in Agenda Item 13.

2 CHAIR WEISENMILLER: Okay. Thank you.

3 Executive Director Report?

4 MR. BOHAN: Chair, just very briefly, SB 350  
5 touches virtually every division in the organization, but I  
6 just wanted to call out Mike Sokol, who you all know, but  
7 he's just doing a terrific job putting together all the  
8 efforts. So, I just wanted to call attention to him.

9 CHAIR WEISENMILLER: Yeah. I also just wanted to  
10 make sure that one of the things -- we've heard the  
11 legislative report today. One of the things I've asked  
12 Barry and the Executive Office to work with the divisions on  
13 is to come up with the work plan - basically to go through  
14 the requirements and then come up with a plan to implement  
15 those requirements.

16 Yeah. And that will, again, touch all the  
17 divisions in some fashion, just so everyone has that on the  
18 radar.

19 Public Advisor Report?

20 MS. MATHEWS: Yes. Very briefly, I have been out  
21 on a couple of different excursions, but I will just  
22 highlight three.

23 The first was the Access to Power: Energy Equity  
24 in California that was sponsored by the Atlantic Magazine.  
25 It was one of their Atlantic Live nationally broadcast

1 events. So, that was a pretty fun event talking about  
2 California policy, reaching out our energy equity efforts  
3 here at the Energy Commission with SB 350.

4 I also had an opportunity on September 21<sup>st</sup>. The  
5 CPUC had their second major Supplier Diversity event. So, I  
6 always want to participate with them to reach towards our  
7 AB 865 initiatives.

8 And then, on September 24<sup>th</sup>, it's not necessarily  
9 Commission-related, but I was invited and had the  
10 opportunity to attend the opening reception and dedication  
11 events for the Smithsonian National Museum for African  
12 American History and Culture.

13 And it was just great to be in in the room with  
14 three living Presidents at the same time and see all the  
15 celebrities. And it is absolutely a very phenomenal  
16 structure and it is the most energy-efficient (laughter)  
17 Smithsonian Museum, probably because it's the newest one.  
18 But I did inquire.

19 So, that was a week of events that just was  
20 amazing and to see so many civil rights leaders and all of  
21 the artifacts and get to talk to them. Actually, artifacts  
22 going back from construction -- Reconstruction and slavery.

23 So, also while I was in D.C., I had an opportunity  
24 to meet with the American Sustainable Business Council, and  
25 they have a minority business subcommittee and a women's



1 subcommittee. And these are all sustainable businesses,  
2 clean energy businesses.

3 So, I have an opportunity to share with them some  
4 of the funding programs and opportunities here at the Energy  
5 Commission. I actually only met with the minority business  
6 subcommittee and then we'll have a future meeting with the  
7 women's subcommittee, again, to reach our AB 865 goals.

8 And then, lastly, tomorrow, I will be -- I was  
9 invited back by Climacore to be one of their featured  
10 speakers for their orientation class. So, I'll be doing  
11 that and that's the last update that I have.

12 CHAIR WEISENMILLER: Great. Thank you.

13 Any public comment?

14 (No audible response.)

15 CHAIR WEISENMILLER: Okay. So, again, the  
16 Commission will now go into Closed Session with legal  
17 counsel pursuant to Government Code section 11126(e) on the  
18 following item set forth in Agenda Item 13: Grant ARV-11-012  
19 with Electricore, Inc.

20 We're anticipating returning to Open Session at  
21 approximately 1:15 as a guesstimate. So, we'll be back.

22 (Off the record at 12:45 p.m.)

23 (On the record at 1:26 p.m.)

24 CHAIR WEISENMILLER: Good afternoon. The  
25 Commission is back in session. We're back from our Closed

1 Session on the topic of Grant ARV-11-012 with Electricore,  
2 Inc.

3 The meeting is adjourned.

4 (Thereupon, the California Energy Commission  
5 Business meeting was adjourned at 1:27 p.m.)

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## CERTIFICATE OF REPORTER

I, Rebecca Hudson, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Business Meeting; and that I thereafter transcribed the audio recording.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 24th day of October, 2016.



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REBECCA HUDSON