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Description:	N/A	
Filer:	Cody Goldthrite	
Organization:	California Energy Commission	
Submitter Role:	Commission Staff	
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Docketed Date:	12/28/2016	

#### BUSINESS MEETING

#### BEFORE THE

CALIFORNIA ENERGY COMMISSION

) )

In the Matter of: Business Meeting ) )16-BUSMTG-01

CALIFORNIA ENERGY COMMISSION

THE WARREN-ALQUIST STATE ENERGY BUILDING

ART ROSENFELD HEARING ROOM - FIRST FLOOR

1516 NINTH STREET

SACRAMENTO, CALIFORNIA 95814

WEDNESDAY, DECEMBER 14, 2016

10:00 A.M.

Reported by: Kent Odell

> CALIFORNIA REPORTING, LLC 22 Napa Street, Rodeo, California 94572 (510) 224-4476

#### APPEARANCES

#### Commissioners

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

#### Staff Present:

Rob Oglesby, Executive Director Kourtney Vaccaro, Chief Counsel Alana Mathews, Public Adviser Lisa DeCarlo Jennifer Martin-Gallardo Harinder Singh Kristen Driskell Michael Murza Cody Goldthrite, Secretariat

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John Heiser	3
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Soheila Pasha	7
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Cary Garcia	11
John Hingtgen	12
Thomas Gates	13
Shahid Chaudhry	14
Brian Fauble	15
Sylvia Palma	16
Martha Brook	17
Michael Sokol	18
Anne Fisher	18a
Sylvia Bender	18b

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## APPEARANCES (Cont.)

Others Present (\* Via Phone)

# Interested Parties

Scott Galati, Stanton Energy Reliability Center, LLC	3
Samantha Neumyer, Ellison Schneider & Harris	4
Lincoln Bleveans, City of Burbank	5
Daniel Garcia, Riverside Public Utilities	
John Schott, ChargePoint, Inc.	15
Rory Moore, ChargePoint, Inc.	15

# Public Comment

Alexandria McBride, Information Technology Industry 7 Council, TechNet Pierre DelfForge, Natural Resources Defense Council 7 Jason Wimbley, Department of Community Services and 8 Development Ashley Dunn, California Air Resources Board 8 Sarah L. White, California Workforce Development Board 8 Sekita Grant, Greenlining Institute 8 Madeline Stano, The Center on Race, Poverty & The Environment 8 Ross Nakasone, BlueGreen Alliance 8 Bret Barrow, CA IBEW and NECA State Labor Management 8 & Cooperation Committee 17 Eddie Moreno, Sierra Club California 8 *Kelly Knutsen, CALSEIA 8 * Shrayas Jatkar, Coalition for Clean Air 8 Spencer Olinek, Pacific Gas &Electric 9 Mike Hodgson, ConSol 10	Charles Kim, Southern California Edison Company	7
Pierre DelfForge, Natural Resources Defense Council 7 Jason Wimbley, Department of Community Services and 8 Development Ashley Dunn, California Air Resources Board 8 Sarah L. White, California Workforce Development Board 8 Sekita Grant, Greenlining Institute 8 Madeline Stano, The Center on Race, Poverty & The Environment 8 Ross Nakasone, BlueGreen Alliance 8 Bret Barrow, CA IBEW and NECA State Labor Management 8 & Cooperation Committee 17 Eddie Moreno, Sierra Club California 8 *Kelly Knutsen, CALSEIA 8 * Shrayas Jatkar, Coalition for Clean Air 8 Spencer Olinek, Pacific Gas &Electric 9		7
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Pursuant to Government Code section 11126(e), the Energy Commission may also discuss any judicial or administrative proceeding that was formally initiated after this agenda was published; or determine whether facts and circumstances exist that warrant the initiation of litigation, or that constitute a significant exposure to litigation against the Commission, which might include:

a. Claims filed at, and rejected by, the Victim Compensation and Government Claims Board against a number of defendants including the Energy Commission relating to the gas leak at Aliso Canyon.

b. Grant ARV-11-012 with Electricore, Inc.

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1	PROCEEDINGS		
2	DECEMBER 14, 2016 10:08 a.m.		
3	CHAIRMAN WEISENMILLER: Let's start with the		
4	Pledge of Allegiance.		
5	(Whereupon, the Pledge of Allegiance		
6	was recited in unison.)		
7	CHAIRMAN WEISENMILLER: Good morning, so we'll		
8	start the Business Meeting. First, I just want to note		
9	that obviously la is not on the agenda today and that Item		
10	2, we don't have any items for that today. And we are		
11	going to split the Consent Calendar up into two parts.		
12	First, we will vote for everything except Item d and then		
13	we'll vote on d.		
14	Commissioner McAllister, so why don't you?		
15	COMMISSIONER MCALLISTER: So I'm going to recuse		
16	from 1d. Actually there is no conflict, but I'm going to		
17	be the representative if this passes, to the Alliance to		
18	Save Energy, a national nonprofit that is based in D.C.		
19	But which we historically have been a member of and we're		
20	re-upping that at a somewhat higher level, so I'll be the		
21	representative on the Board there, assuming they vote me		
22	in, in a month. So I don't currently have a conflict, but		
23	I wanted to from an abundance of caution and further		
24	appearances, just not take part in this vote.	0	
		8	

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CHAIRMAN WEISENMILLER: So let's deal with 1 2 1d. 3 COMMISSIONER SCOTT: Move approval of Item 4 1b. COMMISSIONER DOUGLAS: Second. 5 6 CHAIRMAN WEISENMILLER: All those in favor? 7 (Ayes.) 8 CHAIRMAN WEISENMILLER: So --9 COMMISSIONER SCOTT: Wait, I'm sorry, it 10 was 1d? 11 CHAIRMAN WEISENMILLER: 1d, yeah. 12 MS. VACCARO: Yeah, so I think if you could 13 just do that motion all over again, please? 14 CHAIRMAN WEISENMILLER: Sure. 15 COMMISSIONER SCOTT: Move approval of Item 16 1d. 17 COMMISSIONER DOUGLAS: Second. CHAIRMAN WEISENMILLER: All in favor? 18 19 (Ayes.) 20 CHAIRMAN WEISENMILLER: So 1d passes 4-0. Commissioner McAllister has abstained. 21 22 Yes, okay. So let's take up the rest of 23 the Consent Calendar. All of the items except for 24 1d. 25 COMMISSIONER DOUGLAS: Move consent except

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1 for 1d.

2 COMMISSIONER HOCHSCHILD: Second.
3 CHAIRMAN WEISENMILLER: Yeah, all those in
4 favor?

5 (Ayes.)

6 CHAIRMAN WEISENMILLER: So the Consent7 Calendar except for 1d passed 5-0.

8 Let's go on to Item 3.

9 MR. HEISER: Good Morning Commissioners, my 10 name is John Heiser. I am with the Siting Division 11 as a Project Manager for the proposed Stanton Energy 12 Reliability Center Application for Certification. 13 With me today is Lisa DeCarlo, Staff Counsel.

14 The item entails one action regarding the 15 project: staff supporting the Executive Director's 16 recommendations for data inadequacy for the 17 Application for Certification.

18 The AFC, or Application for Certification, 19 seeks certification for a proposed 98-megawatt, with 20 2 natural gas fired, simple-cycle General Electric 21 LM6000 turbine units, fitted with clutches for 22 operation as synchronous condensers with combined 23 with 10-megawatts of battery storage. 24 The project is located in the City of

24The project is located in the City of25Stanton, Orange County, California; adjacent to the

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Southern California Edison Barre power plant, peaker
 plant, and substation.

The proposal would provide generation for local reliability in the Southern California Edison West Los Angeles Basin Subarea. It was selected as part of SCE's, or Southern California Edison's 2013 Local Capacity Requirements Request for Offers. And the Power Purchase Agreement approved by the California Public Utility Commission.

10 The Stanton Energy Reliability Center AFC 11 was submitted October 26th, 2016 of this year. 12 Staff's initial review of the AFC found that the 13 information provided by the Applicant was not data 14 adequate, in particular, the deficiencies in the 15 areas of Air Quality, Cultural Resources, Geological 16 Hazards, Project Overview, Reliability, 17 Socioeconomics, Traffic and Transportation, 18 Transmission System Design and Water Resources. 19 In addition, on December 5th, 2016 the 20 South Coast Air Quality Management District 21 submitted a letter to the Energy Commission and it 22 was docketed indicating the submitted air permit

23 application is not complete.

24 Staff is working with the Applicant 25 requesting the information to move forward on the

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project. Therefore, staff is recommending the
 Commissioners accept the Executive Director's
 recommendation finding the application incomplete as
 reflected in the attached Order.

5 Siting staff, Staff Counsel and the6 Applicant are available for questions.

7 CHAIRMAN WEISENMILLER: Thank you. 8 Applicant?

9 MR. GALATI: Good morning, Commissioners. 10 My name is Scott Galati. I'm representing Stanton 11 Energy Reliability Center LLC, which is a joint 12 venture between Wellhead Electric and W Power.

13 We agree with the recommendation and accept 14 the recommendation that we're data inadequate at 15 this time. I can tell you that we're working hard. 16 We believe we will be data adequate by the January 17 Business Meeting, at which point I'd like the Client 18 to come in and tell you a little bit about this 19 unique project. And how the batteries are not a 20 stand-alone piece of equipment, but that they worked 21 integral with the turbines to eliminate rotating 22 pinion in standby with no fossil generation, no 23 fossil fuel firing.

24 But at this time I'd like to thank staff 25 that have been very, very helpful. Particularly,

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Mr. Heiser has been very helpful in arranging calls
 with some of the members of staff. Sudath and Mark
 Hesters have been very helpful with us.

We believe that we'll be filing our Data Adequacy Supplement probably Friday or early next week. We are still working with the District on the Air Quality Completeness letter and that might be the only thing that trails. But we hope to see you in January and tell you more about this project. Thank you.

11 CHAIRMAN WEISENMILLER: Okay. Thank you.
12 Let's go on to -- this was an informational
13 item at this stage -- let's go on to Item 4.

14 (Off mic colloquy about item action.)

MS. VACCARO: No, I believe that an actionis required under the Commission.

17 CHAIRMAN WEISENMILLER: Okay. So let's do 18 the action, Commissioner Douglas?

19 COMMISSIONER DOUGLAS: I'll move to approve
20 this --

21 CHAIRMAN WEISENMILLER: I should say does 22 anyone have any comments either in the audience or 23 on the phone?

24 COMMISSIONER DOUGLAS: Good point.

25 (No audible response.)

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1 CHAIRMAN WEISENMILLER: Now, Commissioner 2 Douglas. 3 COMMISSIONER DOUGLAS: All right. I move 4 to approve the staff's recommendation finding this 5 application data inadequate. 6 COMMISSIONER MCALLISTER: I'll second. 7 CHAIRMAN WEISENMILLER: All those in favor? 8 (Ayes.) 9 CHAIRMAN WEISENMILLER: So this passes 5-0. 10 Thank you. 11 MR. HEISER: Thank you. 12 CHAIRMAN WEISENMILLER: Let's go on to Item 13 Number 4, Abengoa. 14 MS. ROOT: Hi, good morning. My name is 15 Christine Root. I'm the Compliance Office Manager 16 for the Siting Division. Also, with me today is 17 Staff Counsel Jennifer Martin-Gallardo and we also 18 have representatives from Mojave Solar, LLC. 19 The Abengoa Mojave Solar Power Project was 20 certified by the Energy Commission on September 8th, 21 2010 and began commercial operation on December 9th, 22 2014. This is a 250 megawatt solar project located 23 near the town of Hinkley, approximately 20 miles 24 northwest of the City of Barstow in San Bernardino 25 County, California.

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On or about July 8th, 2015 through July
 24th, 2015 an event at the project site initially
 stemming from a water leak at the fire main at the
 Beta Power Block prompted a staff investigation.

5 After staff's investigation staff determined various violations had occurred. Staff 6 7 stands by these allegations, but has resolved these 8 issues through a Settlement Agreement with Mojave 9 Solar, LLC. The legal requirements at issue as well 10 as staff's allegations and Mojave Solar's admissions 11 and denials are included in the proposed Settlement 12 Agreement.

13 In addition to a payment in the amount of 14 \$51,000, Mojave Solar, LLC has agreed to additional 15 requirements to ensure the site has a reliable fire 16 protection system and to ensure that proper 17 procedures are in place in the event of a planned or 18 emergency impairment to the fire protection system. 19 Staff recommends three new Condition of 20 Certification: GEN-1.1., 1.2 and 1.3 be added to the 21 Energy Commission decision to include proper 22 notification to the Energy Commission, ensure future 23 impairments are handled according to the California 24 Fire Code regulations, and to ensure the fire 25 suppression system's operational readiness and

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reliability. These conditions have been agreed to
 by the parties through the settlement.

In summary, GEN-1.1 directs Mojave Solar to provide information regarding the damage or failure of the fire water mains from the start of construction through decommissioning.

7 Condition GEN-1.2 directs Mojave Solar to 8 retain FM Global or another mutually agreed upon 9 entity to conduct a root cause analysis and 10 assessments of any past damage or failure to the 11 fire protection water mains at both Alpha and Beta 12 power blocks for this project. And provide 13 recommendations to ensure operational readiness and 14 reliability and compliance with the California Fire 15 Code.

16 Finally, Condition GEN-1.3 directs Mojave 17 Solar to update the project's fire protection Plan 18 to include a section on fire protection impairment 19 practices and procedures.

The requirements of the settlement have been reviewed by staff. Staff has determined that the new Conditions of Certification proposed in the Settlement Agreement will not have a significant effect on the environment and will not cause the project not to comply with any applicable laws,

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ordinances, regulations or standards. This matter
 is not subject to the requirements of Title 20
 California Code of Regulations Section 1769.

4 Staff recommends that the Energy Commission 5 approve the Mojave Solar Settlement Agreement and 6 add these new Conditions of Certification to the 7 Energy Commission license based upon staff's 8 findings.

9 And staff is available if you have any 10 questions as well as Mojave Solar, which I believe 11 you guys would like to make a statement? 12 CHAIRMAN WEISENMILLER: Please, Applicant? 13 MS. NEUMYER: Good morning, Samantha 14 Neumyer on behalf of Mojave Solar, the project 15 owner. With me today is Enrique Guillen, Corporate 16 Compliance Manager for Mojave Solar.

17 As indicated in the Settlement Agreement, 18 staff and Mojave Solar do not agree that there was 19 any potential noncompliance with any of the Conditions of Certification. Our settlement of this 20 21 matter is not an admission of any culpability or 22 liability. We settled in part, because the time and 23 cost of further litigating this matter would greatly 24 outweigh the costs, financial and otherwise, of 25 settlement.

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1 We thank Commission staff for working 2 towards a mutually acceptable resolution of these 3 issues. We look forward to putting this matter behind all of us and to continue providing 4 5 affordable, renewable energy at a facility that has 6 met, and will continue to meet, the highest 7 standards. 8 We accept the settlement and support adoption of the proposed resolution. 9 10 CHAIRMAN WEISENMILLER: Okay. Is there 11 anyone in the room or on the phone who wants to 12 comment on the settlement? 13 (No audible response.) 14 Commissioner Douglas? 15 COMMISSIONER DOUGLAS: Well, I just wanted 16 to thank the staff for their diligence and work in 17 this matter, and Mojave Solar as well. And I'm 18 pleased that you have come to a settlement. 19 You know, our primary goal as we look at 20 our licenses in the siting area is compliance, 21 communication and obviously, the ability to resolve 22 issues in a timely fashion. And we really look 23 forward to continuing to work with you and others, 24 moving forward. We appreciate the fact that you're here today and appreciate your comments. And I'll 25

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1 just look to see if there are any other comments. 2 I'll move approval of this item. 3 COMMISSIONER SCOTT: Second. CHAIRMAN WEISENMILLER: All those in favor? 4 5 (Ayes.) 6 CHAIRMAN WEISENMILLER: This item passes 5-7 0. Thank you. 8 Let's go on to Item 5, City of Burbank. 9 MR. NYBERG: Good Morning Chair 10 Weisenmiller, Commissioners, my name is Michael 11 Nyberg. And I am the Program Manager for the 12 Emission Performance Standard in the Energy 13 Assessments Division. 14 The Emission Performance Standard was 15 established under Senate Bill 1368 by Senator 16 Perata, Chapter 598 of the 2006 Statutes. 17 The EPS limits long-term investments in 18 baseload generation by the state's utilities to 19 power plants that meet an emission performance standard for carbon dioxide. The standard was 20 21 jointly established by the California Energy 22 Commission and the California Public Utilities 23 Commission, and is set at 1,100 pounds per megawatt-24 hour. 25 On October 27, 2016, the City of Burbank

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submitted a compliance filing requesting a
 determination that their Second Amendatory Power
 Sales Agreement is in compliance with the Greenhouse
 Gases Emission Performance Standard, pursuant to
 Title 20 of the California Code of Regulations,
 beginning with Section 2900.

7 The City of Burbank is a participant in the 8 Intermountain Power Project, an 1,800 megawatt coal-9 fired power plant located near Delta, Utah. Along 10 with Burbank, other purchasers of IPP's energy 11 include 23 Utah municipalities, 6 rural electric 12 cooperatives, and 5 other California municipalities: 13 Anaheim, Glendale, Los Angeles, Pasadena, and 14 Riverside.

15 The Second Amendatory Power Sales Contract, 16 signed on March 16th, 2016, allows for the 17 repowering of the Intermountain Power Project's 18 coal-fired generating units with up to 1,200 19 megawatts of EPS-compliant natural gas-fired 20 combined cycle units by July 1st, 2025. This 21 contract expires on June 15th, 2077. 22 The Repowering Project will have a pair of 23 600 megawatt natural gas-fired power blocks with an 24 expected CO2 emission rate of approximately 800

25 pounds per megawatt-hour. Burbank's share of the

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repowering project will be 40 megawatts up to a
 maximum of 50 megawatts. Burbank also has an option
 to withdraw from the Project or reduce its
 entitlement by up to 20 percent by November 1st,
 2019.

6 The City of Burbank acknowledges that a 7 subsequent EPS compliance filing will be necessary 8 if the final design implementation is significantly 9 different from one of the three options described in 10 this filing.

11 The Los Angeles Department of Water and 12 Power, Intermountain Power Project's operating 13 agent, previously submitted a compliance filing for 14 the conversion of IPP from a coal-fired to a gas-15 fired power plant and was found compliant at the 16 October 19th Business Meeting.

17 Burbank's compliance filing involves the 18 exact same resource as LADWP and identifies the same 19 three potential combined cycle designs and vendor 20 specifications. Based on this information, staff 21 calculated the expected CO2 emission rates at 22 various loads and was able to duplicate the CO2 23 emission rates to within 0 to 2 percent. 24 Staff has evaluated Burbank's compliance

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filing and concludes that the analysis conducted in

25

1 reviewing LADWP's compliance filing holds here as 2 well. Staff concludes that the Second Amendatory 3 Power Sales Contract is compliant with the EPS 4 pursuant to Section 2902(a); specifically, that the 5 proposed combined cycle power plant design in the 6 compliance filing is below the EPS limit of 1,100 7 pounds per megawatt-hour. The combined cycle units 8 specified in the Second Amendatory Power Sales 9 Contract meet the EPS.

10 Therefore, staff recommends the Energy 11 Commission find that the covered procurement 12 described in the Burbank compliance filing complies 13 with the Energy Commission's Greenhouse Gases 14 Emission Performance Standard, Title 20, beginning 15 with Section 2900 of the California Code of 16 Regulations.

A representative from the City of Burbank
is here to provide a summary statement concerning
their compliance filing.

20 Thank you.

21 MR. BLEVEANS: Good morning, my name is 22 Lincoln Bleavens, Power Resources Manager at Burbank 23 Water and Power. And it's a great pleasure to be 24 here in support of this filing.

25 Burbank has been very aggressively

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1 following local policy direction as well as state
2 policy direction in achieving both RPS goals as well
3 as the larger greenhouse gas goals. And we continue
4 to plan to do that in the future. This project is a
5 very important part of that being the only and last
6 coal-fired generator in Burbank's portfolio.

7 More importantly though, the filing and the 8 rule process itself creates some very important 9 planning options for Burbank as we move towards a 50 10 percent renewable by 2030 as well as keeping our 11 carbon journey, so to speak, in track with the 12 state's carbon journey.

First of all, by shutting down the coal plant and replacing it we create room in our portfolio for additional renewables. We're already over resourced. We have been for some time, so creating room in that portfolio becomes very important.

19 Second of all, the project transmission 20 line, especially the STS, which runs from Delta, 21 Utah into the L.A. Basin, gives us access to new 22 renewable resources, both wind and solar.

And finally, the repowering of that site will give us a way to integrate renewables in our portfolio, which will become increasingly important.

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1 And increasingly challenging as we move towards 50 2 percent and that is whether we end up with a 3 generation project or a storage project or perhaps both out at Intermountain. So we see this as an 4 5 important step and as a step that is very much an 6 important part of our move along our greenhouse gas 7 journey, and our RPS journey for Burbank Water and 8 Power. 9 So with that I'd love to take any 10 questions. 11 CHAIRMAN WEISENMILLER: Thank you. Let's 12 first see if there's anyone either in the audience, 13 or on the phone, who have comments on this? 14 (No audible response.) 15 CHAIRMAN WEISENMILLER: Okay. So let's 16 then transition over to the Commissioners. 17 I wanted to thank you for being here today 18 and also for your explanation of both your 19 commitment moving forward to address greenhouse gas goals in renewables and at the same time, just 20 21 taking this important step at this point in moving 22 away from coal generation. 23 And certainly I look forward to working 24 with you in the future as you continue that pivot 25 and continue that march forward to addressing

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1 greenhouse gas goals and bringing more renewables
2 online.

3 Anyone else, have a motion? 4 COMMISSIONER MCALLISTER: I just wanted to 5 also thank you for being here. And just point out, acknowledge, and congratulate you for Burbank's 6 7 innovation on a lot of different fronts. Certainly 8 on the planning and on the kind of advanced metering 9 infrastructure and really sort of just good 10 management generally. 11 I think you set a really good example, and 12 this is another example of that sort of proactive 13 and transparent planning and execution. So 14 congratulations and thanks. 15 MR. BLEVEANS: Thank you. 16 COMMISSIONER MCALLISTER: Okay. I'll move Item 5. 17 COMMISSIONER HOCHSCHILD: Second. 18 19 CHAIRMAN WEISENMILLER: All those in favor? 20 (Ayes.) 21 CHAIRMAN WEISENMILLER: Pass 5-0, thanks 22 again. Thanks for being here. 23 MR. BLEVEANS: Thank you. 24 CHAIRMAN WEISENMILLER: Let's go on to Item 25 6.

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MR. NYBERG: Good morning again, Chair,
 Commissioners. Similar to Item 5, I am presenting
 an Emission Performance Standard compliance filing
 regarding the conversion of the Intermountain Power
 Project.

6 On November 2, 2016, the City of Riverside 7 submitted a compliance filing requesting a 8 determination that their Second Amendatory Power 9 Sales Agreement is in compliance with the Greenhouse 10 Gases Emission Performance Standard, pursuant to 11 Title 20 of the California Code of Regulations, 12 beginning with Section 2900.

13 The Second Amendatory Power Sales Contract, 14 signed on March 16th, 2016, allows for the 15 repowering of Intermountain Power's 1,800 megawatt 16 coal-fired generating plant with up to 1,200 17 megawatts of natural gas-fired combined cycle units by July 1st, 2025. The Repowering Project will 18 19 consist of a pair of 600 megawatt natural gas-fired 20 power blocks with an expected CO2 emission rate of 21 approximately 800 pounds per megawatt-hour. This 22 contract expires on June 15th, 2077. 23 Riverside's City Council has set a

23 Riverside's city council has set a
24 participation limit of no more than 5 percent or 60
25 megawatts, an amount less than the 91 megawatts

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share presented within the contract. Riverside also
 has an option to withdraw from the Project or reduce
 its entitlement by up to 20 percent by November 1,
 2019.

5 The City of Riverside acknowledges that a 6 subsequent EPS compliance filing will be necessary 7 if the final design implementation is significantly 8 different from one of three options described in 9 this filing.

10 As previously stated, the Los Angeles 11 Department of Water and Power submitted a compliance 12 filing for the conversion of IPP from a coal-fired 13 to a gas-fired power plant and was found compliant 14 at the October 19 Business Meeting. Riverside's 15 compliance filing involves the exact same resource 16 as LADWP and identifies the same three potential 17 combined cycle designs and vendor specifications.

18 Staff has evaluated Riverside's compliance 19 filing and concludes that the analysis conducted in 20 reviewing LADWP's compliance filing holds here as 21 well: staff concludes that the Second Amendatory 22 Power Sales Contract is compliant with the EPS 23 pursuant to Section 2902(a). Specifically that the 24 proposed combined cycle power plant design in the 25 compliance filing is below the EPS limit of 1,100

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pounds per megawatt hour. The combined cycle units
 specified in the Second Amendatory Power Sales
 Contract meet the EPS.

4 Therefore, staff recommends the Energy 5 Commission find that the covered procurement 6 described in the Riverside compliance filing 7 complies with the Energy Commission's Greenhouse 8 Gases Emission Performance Standard, Title 20, 9 beginning with Section 2900 of the California Code 10 of Regulations.

11 And representatives from the City of 12 Riverside are here to provide a summary statement 13 concerning their compliance filing. Thank you. 14 MR. GARCIA: Good morning. Daniel Garcia, 15 Assistant General Manager of Resources, Riverside 16 Public Utilities. I would like to thank the 17 Commission for considering Riverside's EPS 18 compliance filing for participation in the IPP 19 Repower Project.

20 Riverside's environmental leadership is 21 well established. Riverside adopted its own 22 renewable portfolio standard in 2003, well before 23 the state mandate of 2011. Riverside has approved 24 13 renewable resource contracts in the past few 25 years, exceeding 200 megawatts of capacity, which

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will enable Riverside to ready 40 percent RPS in
 2020.

Once the IPP Repower Project comes online in 2025, it would help to reduce the City's power supply greenhouse gas footprint by more than 85 percent below 2006 levels. And Riverside's resource portfolio will be completely divested from coal generation.

9 In June, 2015, Riverside City Council 10 approved and authorized Riverside's participation 11 for up to 60 megawatts in the new gas-fired repower 12 project. In November of 2015, the City Council 13 approved the compliance filing, a Notice of Public 14 Meeting, and no public comments have been received. 15 Riverside would appreciate the Commission's 16 approval of the compliance filing to enable 17 Riverside's continued participation in the Repower Project. Thank you. I'm available for questions. 18 19 CHAIRMAN WEISENMILLER: Thank you. First 20 let's see, is there any comments from anyone in the 21 room or on the line? 22 (No audible response.) CHAIRMAN WEISENMILLER: And again, let's 23 24 transition to the Commissioners. Again, I'd like to

25 thank you for being here. I think is certainly a

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1 great day as you're starting to pivot off of coal, 2 certainly appreciate your historic efforts on 3 renewables. I look forward to working with you over the arc between now and 2030 on reducing your 4 5 greenhouse gas footprint with more renewables, energy efficiency, and hopefully electrification of 6 7 transportation. So again, thanks for being here. 8 Anyone else? 9 COMMISSIONER SCOTT: I'll move approval of 10 Item 6. 11 COMMISSIONER MCALLISTER: I'll second. 12 CHAIRMAN WEISENMILLER: All those in favor? 13 (Ayes.) 14 CHAIRMAN WEISENMILLER: This passes 5-0. 15 Thank you. Thanks again. 16 Let's go on to Item 7, Energy Efficiency 17 Regulations for Computers, Computer Monitors, 18 Signage Displays and Battery Chargers. 19 I will again remind anyone who'll want to 20 speak to file a blue card. The Public Adviser in 21 the back will be happy to help you with that. 22 MS. PASHA: Good morning, Chair and 23 Commissioners. My name is Soheila Pasha. I am an 24 Electrical Engineer with the Energy Commission's 25 Appliance Efficiency Program. Also joining me are

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Harinder Singh, Senior Electrical Engineer with the
 Appliance Efficiency Program, and Lisa DeCarlo from
 the Chief Counsel's Office.

4 I'm here today to present to you Item 7, 5 which is the possible adoption of new standards for 6 computers and computer monitors, and clarifying the 7 existing scope for signage displays, and battery 8 chargers.

9 In California, there are more than 44 10 million desktops, notebooks, small-scale servers, and workstations and more than 25 million monitors. 11 12 Together computers and monitors use an estimated 13 5,610 gigawatt hours of electricity per year, which 14 is up to 3 percent of residential electricity use 15 and 7 percent of commercial use. This makes 16 computers and monitors one of the leading consumers 17 of electricity in California and most sit idle, 18 wasting energy and money while not in use.

19 The Warren-Alquist Act gives the Energy 20 Commission Authority to set minimum levels of 21 operating efficiency for appliances sold or offered 22 for sale in California. Since 1976, California has 23 addressed a portion of its demand with appliance 24 efficiency. Furthermore, appliance efficiency is a 25 key strategy to achieving California's greenhouse

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1 gas reduction goals of AB 32.

2 Our proposed Efficiency Standards for 3 Computers and Computer Monitors will save energy in 4 the state while saving consumers money, without 5 harming the usefulness of the products or future 6 innovations. The proposed set of regulations are 7 projected to reduce electricity usage in commercial 8 and residential buildings by more than 2,300 9 gigawatt hours per year after stock turnover for a 10 utility bill savings of \$373 million annually. This 11 is equivalent to providing enough electricity to 12 power all homes in San Francisco and San Luis Obispo 13 Counties in 2015. Lower electricity consumption is 14 expected to reduce greenhouse gas emissions by more 15 than 0.73 million-metric tons of CO2 equivalent per 16 year.

17 These standards were developed with 18 significant input from stakeholders including the 19 computer industry, energy efficiency advocates, and 20 the investor owned utilities. We vetted the 21 regulations publicly through several workshops and 22 comment periods on the proposed regulation. Today, 23 we present a standard that is cost-effective, 24 technically feasible, and will save significant 25 energy and money in California.

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1 The proposed standards focus on achieving 2 such significant efficiency improvements when 3 computers are wasting energy and money while sitting 4 idle. Though the proposed standards are cost 5 effective, they do not impact the functionality of the computers and monitors, and generally provide 6 7 manufacturers flexibility to determine how to 8 comply. For example, the Commission estimates that 9 the proposed standards for desktops, when first take 10 effect, will add about \$10 to the cost of a computer 11 but will save consumers more than \$40 in electricity 12 bills over five years.

13 The environmental impacts of the proposed 14 regulations have been considered, and are consistent 15 with the requirements of CEQA, the California 16 Environmental Quality Act. Staff issued an initial 17 study that found no significant adverse 18 environmental impacts due to the proposed 19 regulation. The study found positive effects from a 20 reduction in reduced emissions related to lower 21 electricity consumption. The Commission issued a 22 30-day comment period necessary to comply with CEQA 23 Guidelines but did not receive any comments on these 24 findings. Next slide

25

# The proposed regulations contain potential 33 CALIFORNIA REPORTING, LLC 22 Napa Street, Rodeo, California 94572 (510) 224-4476

1 standards for monitors that are 17 to 61 inches, and 2 include specialty monitors like enhanced performance 3 displays, gaming monitors, curved monitors, and OLED 4 monitors. The Monitor Standards do not apply to 5 televisions or signage displays, which are covered 6 under TV Standards, or to computing devices like 7 smart phones and tablets.

8 The proposed standards cover four main form 9 factors of computers, which are: desktops, 10 notebooks, small-scale servers, and workstations. 11 Integrated desktops and thin clients are combined in 12 the desktop category. Examples of the systems that 13 are not included in the scope of the proposed 14 regulations are tablets, small computer devices such 15 as smart phones and game consoles, large-scale servers and industrial computers. 16

Monitors operate in three different modes: on, sleep, and off. The proposed regulations require power consumption limits while the monitor is in any of these modes.

21 Computers, on the other hand, typically 22 operate in five distinct modes: active, short-idle, 23 long-idle, sleep and off. The core opportunity for 24 energy savings in computers is found in reducing the 25 amount of energy consumed when the system is sitting 34

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idle. Roughly half of the times computers are on,
 but not being used. Proposed Standards are aimed to
 reduce the power consumption for such cases.

4 For monitors the on-mode power consumption 5 limit consists of a base target and additional allowances for specific features such as enhanced 6 7 performance displays. The base energy target is 8 allocated based on the diagonal size of the monitor 9 display and accounts for the monitor resolution and 10 screen area. Monitors with multiple special 11 features may combine allowances for those features. 12 For desktop computers, the proposed

13 regulations would set an annual energy consumption 14 target, called base energy, plus additional 15 allowances for specific features, ports and 16 functionalities included in the system such as 17 discrete graphic cards or additional storage 18 devices. The base energy target for desktop 19 computers is scaled based on the expandability of 20 the computer, which should also correlate with the 21 power supply size since it provides power to the 22 expanded features.

23 For notebook computers, similar to 24 desktops, the proposed regulations would set a 25 target for the base energy plus additional

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allowances for specific features, ports and
 functionalities included in the system.

3 For small-scale servers and workstations, 4 proposed standards are prescriptive. These types of 5 computers are in active mode more often than typical 6 desktops. In active mode, energy saving 7 opportunities are primarily driven by the quality of 8 the power supply. Therefore, small-scale servers 9 and workstations are not required to meet energy 10 consumption limits, but rather are required to be 11 manufactured with an 80 plus gold level power 12 supply, and an energy efficient Ethernet.

13 A major opportunity for energy saving 14 without an added cost is to have a proper power 15 management setting. Because computers consume 16 significantly lower energy in sleep mode as compared 17 to short and long-idle modes, it is important that 18 the system is automatically transitioned into sleep 19 mode if it is sitting idle. Therefore, all 20 computers are required to meet certain power 21 management requirement that must turn off the 22 display after 15 minutes of inactivity and must 23 enter the computer into sleep or alternative sleep 24 mode after 30 minutes or less of user inactivity. 25 This does not apply to computers that are always

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active or that don't have a fully functional
 operating system.

The effective date for the Computer Monitor Standards is July 1, 2019. Manufacturers can apply allowances for special features, which are structured in two tiers. Effective dates for Tier I adders is July 1, 2019 and effective dates for Tier II adders is January 1, 2021.

9 For computers, the effective date for 10 small-scale servers and workstations is January 1st, 11 2018 and for notebook computers is January 1st, 12 2019.

13 The proposed standards for desktops are 14 implemented in two tiers in order to maximize energy 15 savings and provide a smoother supply chain 16 transition. The effective date of the 1st Tier is 17 January 1, 2019, and the effective date of the 2nd 18 Tier standards is July 1, 2021.

19 The standards are technically feasible for 20 both computers and monitors. For monitors, 21 technologies to improve their efficacy and meet the 22 proposed standards exist today. About 20 percent of 23 monitors in today's market meet the overall proposed 24 standards and a large portion, about 80 percent, 25 meet the proposed levels for the sleep and off

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1 modes.

25

The proposed standards for desktops and notebooks are in terms of the annual energy consumption and allows trade-offs that provide the flexibility to comply in the most cost-effective way.

7 There are some desktop computers currently 8 in the market that meet the proposed Tier 1 standards and do not require further improvements. 9 10 For the others, the proposed standards are designed 11 in a way to ensure that they can comply using 12 existing technologies, without increasing the cost 13 more than the savings and while providing the same 14 customer utility.

15 The majority of notebook computers 16 certified to the ENERGY STAR database already meet 17 the proposed standards, showing that it is 18 technically feasible to meet the standards. 19 For computers that need to comply with

20 small-scale servers and workstation requirements, 21 there are currently more than 1,500 power supplies 22 and a wide range of energy-efficient Ethernets 23 available in the market that meet the proposed 24 standards.

The standards are very cost-effective. As

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1 this slide shows the life cycle savings for all 2 computer form factors, and for monitors, are far 3 more than the incremental costs and therefore the 4 proposed regulations are cost effective.

5 Unlike most appliance types for which the 6 Energy Commission has proposed regulation, 7 manufacturing of desktop computers is feasible even 8 at a very small scale, which means that the testing 9 costs and costs of compliance may have a larger 10 effect on these small businesses. For this reason, 11 the proposed regulations include some limited 12 exemptions that apply to Small Volume Manufacturers 13 or SVMs.

14 Manufacturers with total annual gross 15 revenue of \$2 million or less who assemble and sell 16 the computers at the same location are qualified as 17 Small Volume Manufacturer and can certify themselves as a Small Volume Manufacturer to the Commission's 18 19 database. SVMs do not have to comply with the standards, but do have to comply with the power 20 21 management. If SVMs produce 50 units or more of a 22 basic model of desktop or workstation, then those 23 units have to comply with the standards.

24 We are proposing some clarifying changes in 25 this regulation. First, we clarified that signage

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displays are required to meet the standards for televisions. We also clarified that professional signage displays, which are found in stadiums and convention centers, are not covered under this standard. Second, we clarify that certain nonconsumer battery chargers are excluded from the current battery charger regulations.

8 The computers and monitors market is 9 rapidly changing and evolving. Staff has proposed 10 standards that are flexible enough to allow for 11 continued innovation and growth while stringent 12 enough to ensure that manufacturers prioritize 13 energy efficiency in their products. However, our 14 regulations may not have completely predicted the 15 future market. Therefore, in the Proposed Adoption 16 Order, we suggest that the Commission direct staff 17 to do two things to ensure that the energy savings 18 projected from this rulemaking are achieved.

19 First, staff will monitor the market for
20 shifts in technologies or features that were not
21 expected at the time of this rulemaking, such as a
22 significant increase in the shipments of enhanced
23 performance displays that could impact the energy
24 savings expected from this rulemaking. To do this,
25 staff will analyze the rates at which computer and

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1 monitor models and features are certified, and use 2 third-party shipment data to verify whether there is 3 a shift in the market toward products or features 4 that were considered marginal during the rulemaking. 5 If there is a shift toward one of these products or features, staff will consider proposing changes to 6 7 the standards that will prevent these market changes 8 from significantly reducing the overall energy 9 savings projected in this rulemaking.

10 Second, if staff receives a petition for 11 rulemaking to change or create an adder or allowance 12 related to a new feature or technology that was not 13 considered as part of this rulemaking, staff will 14 commit to presenting to the Commission potential 15 regulatory changes within six months of the petition 16 being granted by the Commission. The rulemaking 17 petition received by the Commission will need to 18 include sufficient information to show that the new 19 feature or technology was not considered during this 20 rulemaking, what the energy consumption levels are 21 or will need to be, and may include confidential business information, submitted under the 22 23 Commission's confidentiality process, to support the 24 need for a rulemaking.

Staff also plans to undertake outreach and 41 CALIFORNIA REPORTING, LLC

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education activities ahead of the effective dates to
 ensure that manufacturers are prepared to comply
 with the proposed efficiency standards.

We also have a Title 20 Call Center toanswer compliance questions.

6 In conclusion, I recommend that the 7 Commission approves Item 7. I'm happy to answer any 8 questions that you may have.

9 CHAIRMAN WEISENMILLER: Thank you.

10 Let's first take comments. Let's start 11 with Charles Kim.

MR. KIM: Thank you. I'm Charles Kim of the Southern California Edison Company. I'm speaking on behalf of California investor owned utilities.

16 Southern California Edison has been leading 17 this advocacy effort since the year 2012 and we are here today. I'm standing before you, Chair and 18 19 Commissioners, with a thankful heart and in support 20 of proposed energy efficiency regulations on 21 computers and displays. I'm also standing in front 22 of incredible industries who started an IT 23 revolution right here in California. 24 The revolution started with a signal, blinking cursor on the corner of a screen, sitting 25

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1 on a box. And they are telling the entire world 2 that this incredible technology would be available 3 to everyone. We've passed that point, but today we 4 are ready to send another signal to the entire world 5 that is IT revolution now comes with minimum energy 6 efficiency standards that benefits every users by 7 saving energy, saving natural resources and reducing 8 greenhouse gas.

9 So I'm very thankful today and standing 10 here and proposing CEC to adopt this incredible 11 standard. So I just want to make one more comment 12 about that signal that we're trying to send today. 13 That signal has been shaped and reshaped with the 14 terms and conditions resulting from over two years 15 of negotiation, which were led by the CEC with the 16 incredible leadership by Commissioner McAllister and 17 extraordinary effort put by CEC staff, and I'm very 18 thankful for that.

19 Therefore, I'm here to honor those terms 20 and conditions that that are reflected on this 21 proposed language. And I'm also very hopeful and 22 confident that industries are going to produce this 23 incredible machine with the energy efficiency loaded 24 that is far exceeding minimum standard early --25 earlier than the minimum they are the lines that we

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1 are proposing today.

2 Maybe this will be my Christmas gift. So I 3 just want to say thank you CEC, thank you industry, 4 thank you ITI, for bringing all those members to the 5 table and to the discussion and to the negotiation. 6 I also thank NRDC and I also thank all other 7 stakeholders who made this incredible journey 8 possible.

9 So once again, thanks so much. And I'm
10 here once again in full support of adapting proposed
11 languages for regulating energy efficiency for
12 computers and displays. Thanks so much.

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

15 Alexandria McBride?

MS. MCBRIDE: Sure. Good morning Chair and Commissioner McAllister and other Commissioners, thank you for having me here this morning.

19 I'm here on behalf of ITI, also known as
20 Information Technology Industry Council and my name
21 is Alexandria McBride. I'm here representing ITI
22 and TechNet and our member companies include the
23 most productive and innovative technology companies
24 in the world. Our companies vigorously compete to
25 offer customers products that meet performance needs
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1 and do so while driving energy efficiency products.

We're proud of our 20-plus year partnership with the EPA on ENERGY STAR and with our work with governments around the world. We are particularly proud of the work we've been doing with the Commission and the four-year partnership and collaboration that we've had in drafting this historic rulemaking on computers and displays.

9 The regulation meets the goal of reducing 10 desktop's idle power by 50 percent over five years, 11 while also allowing our industry to continue to 12 provide top tier products to our customers in the 13 California market and beyond. For these reasons, 14 ITI and Tech Net support the ruling and support the 15 standard as has been proposed today. Although the 16 standards and the rulemaking are ambitious, we are 17 confident that our industry will continue to create 18 energy efficient technologies and will meet the 19 requirements stated in the standard.

20 Still there's one important condition of 21 our support to this rulemaking and that is the 22 commitment from the CEC staff to ensure all test 23 procedures are accurate and repeatable. We provided 24 more detail in our written comments, but in short 25 the CEC has proposed test procedures for PC systems

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1 with automatic brightness control needs improvement.

2 We're extremely encouraged by the initial 3 discussions we've had with the CEC staff on 4 correcting the issue in the next few months. And I 5 would appreciate your dialogue today to reaffirm 6 your commitment to make these improvements.

7 Again, on behalf of ITI and Tech Net, we 8 are honored to be part of this process and 9 particularly thankful to the CEC staff who have been 10 close partners in the past four years, and delighted 11 again to share support for this rulemaking. Thank 12 you.

13 Thank you. CHAIRMAN WEISENMILLER: 14 Let's go to NRDC and I'll see if there's 15 anyone else then I'll go back to the staff. 16 MR. DELFORGE: Pierre Delforge, with 17 Natural Resources Defense Council, NRDC. Chair, Commissioners, I actually remember sitting in this 18 19 room on the 31st of August, 2011 -- that was over 20 five years ago -- presenting on the opportunity to 21 set standards for computers and monitors. Five 22 years later thanks to your leadership, your 23 determination and hard work by yourselves and your 24 staff we stand close to -- we are reaching the 25 finish line; perhaps not in record time, but setting

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1 other records.

These are the fist mandatory standards for computers in the United States. This product category is perhaps one of the most challenging that the Commission has ever tacked under Title 20. And the pace of technology evolution makes it very challenging to set standards for these products.

8 Despite these challenges the proposed 9 standards are strong and will lead manufacturers to 10 adjust their product road maps and to design 11 significantly more efficient products than they 12 would otherwise. The standards will result in 13 significant bill savings consumers and businesses in 14 California, in cutting carbon pollution, carbon 15 emissions throughout the state, and beyond the state 16 borders given the ripple effect that we expect from 17 these standards across the country and across the 18 globe.

In our comments on the CEC's previous proposal, and obviously other advocates flag the risk that major loopholes could develop if features that are rare today, become common faster than expected. And the allowances and exemptions for these features could result in major loss of the savings. So we really appreciate the Commission

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addressing this issue by directing staff to conduct
 rigorous market monitoring and to propose revisions
 to the standards should these major loopholes
 develop.

5 While the standards, in our opinion, could 6 be tighter in some areas such as for high-end and 7 specialty models we think the Commission's proposal 8 is a fair compromise. And NRDC is happy to support 9 adoption of these standards today. However, we do 10 oppose last-minute amendments, which has on the 11 auto-brightness control test procedure. And 12 recommend that any changes be considered in a public 13 process that allows proper consideration and 14 stakeholder input on these changes.

We urge the Commission to be vigilant in its market monitoring and to move quickly should any exemptions and allowances need to be tightened.

18 So in closing NRDC calls for adoption as 19 proposed, and we look forward to continuing to work with the Commission to tap into the energy 20 21 efficiency potential of plug-in equipment. To 22 provide some of the cheapest energy savings 23 available and help achieve California's goal to 24 double energy efficiency savings by 2030. Thank you 25 very much.

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CHAIRMAN WEISENMILLER: Thank you. Thanks
 for being here.

3 So first, is there anyone else in the room 4 or on the line who wants to speak at this time? 5 (No audible response.) 6 If not then I was going to ask the staff if 7 they have a comment on that one issue, test 8 procedures. MS. PASHA: Yes, thank you. 9 10 So ABC is the Automatic Brightness Control. 11 And basically it changes the screen brightness, 12 based on the room's ambient light. We specified in 13 our test procedure that the room ambient light 14 should be set at 300 lux, which we believe that 15 reflects a real life setting. However, we received 16 some comments that these tests may not be accurate 17 or right. So we may be looking into this change of 18 the test procedures and see what is more accurately 19 representing the real world settings. 20 So if we find that we need to change the

21 test procedures to more accurately reflect a real 22 world settings, we will do that through future 23 rulemakings.

24 CHAIRMAN WEISENMILLER: Thank you for that 25 clarification.

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Let's transition to the Commissioners,
 Commissioner McAllister?

3 COMMISSIONER MCALLISTER: All right. 4 Well, a deep breath, just I am incredibly gratified 5 to be here today. First off, I want to thank staff, Soheila and Harinder. And in addition, Ken Rider 6 and also Patrick Saxton, who through a long period 7 8 of time -- we've talked about how long this has been 9 in coming -- actively participated in this as well 10 as the rest of the Appliances staff and under 11 Kristen's leadership, Kristen Driskell, sitting back 12 there. And Dave and Christine who lead the 13 Division.

14 So I think it's really been a team effort 15 at the staff level and certainly it has really been 16 a village. Not just the staff is a very important 17 key central player here, but all the other 18 stakeholders are equally valuable members of this 19 team that it's taken to get to get this thing across 20 the finish line. And I want to just really call out 21 industry ITI and all your members who have brought 22 such class to this process, really. And it has been 23 a really, just a good faith -- I think it's an 24 exemplary process that really is leading the 25 culmination here that we're looking at today.

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1 Where really it's been based on a good 2 faith effort, everybody bringing their knowledge to 3 the table. We're all feeling like as Californians 4 and as California companies, many of your members, 5 and as the advocates, NRDC and the IOUs, who've been 6 really central also to this process. So I want to 7 thank all of you.

8 And I think it's a model process, really. 9 This is a complicated -- I would agree with Pierre 10 that this is the most complicated category that 11 we've really worked through. And I remember when I 12 came in 2012, so I wasn't there for that meeting I 13 don't think, but when I sat down at the Energy 14 Commission and we looked at how this process ought 15 to go, we tried to approach it with as open arms as 16 possible. And get everybody in the tent because we 17 knew that we were going to have gaps in 18 understanding and gaps in maybe vision of where we 19 were going. And it was very important to pull everybody together, have that discussion, and reach 20 21 some agreement on where we were going. And we did 22 that.

And so there were many convenings over the years, really, to sit down and work through the particular issues. Slice and dice the categories

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1 and subcategories and look at the allowances. And 2 you could call it a negotiation, I think, at some 3 point toward the end, but really it was a team 4 effort where people were really mostly getting on 5 the same page. And that I think is critical to a 6 process that treats a category that's as complicated 7 as this. And it can be a model for other 8 categories, you know, electronic devices and smaller 9 plug loads and home networking devices. There are a 10 lot of categories of plug loads that are 11 proliferating and growing in their overall demand. 12 And that is a key area that we need to work 13 through and deal with as we work towards our climate 14 goals and our doubling of energy efficiency goals 15 per SB 350, the Title 20 Appliance Efficiency 16 Regulations are a key area of savings to reach that 17 goal. And it's the most complex area of energy 18 savings too, so I think this is part of a new model 19 to move forward in a collaborative way. And get 20 within the regulatory approach that we've 21 historically use, but sort of modernizing and 22 updating that. 23 So California is going to be a lot better

23 so callfornia is going to be a lot better 24 place, because of these regulations. There's really 25 just win-win-win, you could count the wins I think.

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1 When you go down the line there's just so many 2 reasons on so many levels that this is a good thing 3 for our consumers and our environment. And I think 4 our industry too, because energy efficiency -- these 5 products are beautiful things. A cool, high performing machine is a thing of beauty. And it can 6 7 be designed and we have the technology now and it 8 doesn't cost that much.

9 So the regulations, I think, will result in 10 really the marketplace reflecting that reality in a 11 way that if we can do and the marketplace overall 12 will benefit form.

13 So speaking of the marketplace I want to 14 just comment on a couple of things. I do agree with 15 what Pierre said and what staff's approach is. I 16 think it's very important that we continue to 17 monitor the marketplace and it's really not just for 18 this category here. Here we're talking about 19 computers and monitors, but I think that's another hallmark of this updated process that we're using. 20 21 We need to approach regulations with a very highly 22 tuned finger on the pulse of the marketplace. And 23 understand where it's going to that we can have 24 these productive relationships and conversations 25 with industry. So again, I think this process has

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1 been really a model.

2 I think we're all palpably aware of the 3 global nature of the supply chain that industry 4 works with, and the product development cycles, and 5 just the complexity of modern manufacturing. I know that people in Washington and across the country in 6 7 other states are looking at this. I think the 8 implications for the supply chain go even beyond 9 that.

10 And we appreciate the complexity of that 11 endeavor and that's why we've really been open to 12 working with those realities. And so that industry 13 can actually produce the product, you know, not have 14 to go back to the drawing board and waste a lot of 15 time and money. But actually build it in as we go 16 achieving energy savings but not disrupting their 17 process any more than necessary, so I think this 18 also does that.

I also wanted to thank Legal and I know
Lisa has been very involved in this, (indiscernible)
Legal as well and under Kourtney's leadership very
effective. And I think we've done a great job there
and the Executive Office as well with Rob's
leadership on Appliances generally and certainly on
this rulemaking.

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1 And then just I wanted to comment on the 2 ABC test procedure. You know, test procedures have 3 to be reliable and repeatable and as Soheila said, reflect real word conditions wherever possible. So 4 5 we're committed to working that out and making sure 6 that that test procedure is something that's 7 transparent and everything's accountable and there 8 are no surprises going down the road. So whatever that path looks like, we're committed to make that 9 10 happen.

11 And again the market modeling, I think 12 that's really given the product cycles and given the 13 fast-moving technology, we don't know what the 14 desktop, what the server or what the monitor even market is going to look like in three years. Nobody 15 16 has that crystal ball. What are consumers going to 17 prefer, what features? So we need to keep track of 18 that and make sure that the available savings can be 19 captured in a reasonable way, by our regulations now 20 and then in future updates.

And so that again that's sort of a tweak on our process that we're feeling compelled to put into place around this rulemaking too. And working with industry again as closely as we can. And all the stakeholders who are paying attention here. The

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1 IOUs have been great partners on this and NRDC
2 really has been a leader, a thought leader in this
3 space and very active in the rulemaking as well. So
4 I think that fact that we have a broad consensus on
5 just the vast public and private good that we're
6 creating here, that is called good policy making.

7 So I wanted to put this in a little bit of 8 context for everybody, because I think it is really groundbreaking. Looking around this room, there are 9 10 100 or so of us here, but this is a big deal. It's 11 going to save a lot of energy. It is going to put 12 better products into the marketplace. And it's 13 going to set an example. And in this day and age I 14 think California is really out front and center in a 15 lot of these issues increasingly. And so it can be 16 done in a way that achieves consensus and in a good 17 faith team-based approach.

18 So I want to thank everybody again for all 19 the work. Definitely keeping your sleeves rolled up 20 for four years is not easy, but in my view it's been 21 very much worth it. And I think we're getting to a 22 very, very good place. And I'm looking forward to 23 seeing the impact that this regulation makes out 24 there in the market.

CHAIRMAN WEISENMILLER: Anybody else want
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1 to?

2 COMMISSIONER DOUGLAS: Well, I just wanted 3 to say briefly, having some insight into how these 4 processes work, that -- and they do take a long time 5 and there are always a lot of people involved -- but 6 I'm just really impressed at how this one has gone. And I want to thank you, Commissioner McAllister, 7 8 and the staff, and certainly all of the stakeholders 9 and particularly the industry stakeholders, who 10 really came to the table and helped find ways to get 11 to yes and make it work.

12 I'm also very pleased with where we have 13 gotten with this set of standards and appreciate 14 everybody's contribution.

15 COMMISSIONER SCOTT: I'll just add, as the 16 Public Member, I'm always cheered when I hear about 17 the inclusive and robust and positive public 18 process. So I appreciate you taking the time to do 19 the leadership on that and all of our stakeholders 20 for re ally engaging in a positive way. And just as 21 Commissioner Douglas working to get to yes.

You know, when I was reviewing the materials and getting my excellent briefing from the staff on this one, it really is an impressive amount of savings that we have here in these standards.

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1 And I think that we've also built in a nice bit of 2 flexibility given how fast the market changes to be 3 able to keep up with that, so I think it's 4 fantastic. And I just also wanted to say thank you 5 so much, Commissioner McAllister, for your 6 leadership on this. Congratulations.

7 COMMISSIONER MCALLISTER: Well, I think not 8 quite, we haven't voted it out. But there is 9 actually one stakeholder I'd be remiss if I didn't 10 mention, which is the Consumer Federation of America 11 and all their partners. I think have been really 12 key as well sort of elevate the level of discourse 13 on this and keep everybody focused on how important 14 it is and what the benefits are broadly, so they've 15 been a great partner as well.

16 So any comments from anybody else, yeah? 17 COMMISSIONER HOCHSCHILD: Yeah. No, I just 18 wanted to pile on, Commissioner McAllister, to thank 19 you and your staff for working on this. I still 20 believe Title 20 is the most effective, least 21 noticed program we're doing, because the impacts --22 not just with computers, but with refrigerators and 23 televisions and plug-in chargers and LEDs are so 24 substantial, but very much below the radar. And I 25 think in this new political chapter we're entering,

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our leadership on this is more important than ever.
 So really my congrats to you.

3 CHAIRMAN WEISENMILLER: Yeah, and again I 4 was going to just agree with everyone's comments 5 that this is really critical moving forward to 6 address greenhouse gas challenges. Certainly 7 computers are part of our lifeblood in California 8 and using those there's sort of a proliferation. 9 Every time you turn around there's more and more. 10 So getting those to be as efficient as they can is 11 critical. So again thanks.

12 CHAIRMAN WEISENMILLER: I think Charles' 13 comments at the beginning were right on. We 14 invented these things. I mean, I know I'm dating 15 myself, but when Pong was the only thing you did 16 with computers, that was a long time ago now. And 17 this is such a California topic. It's so in our lifeblood, as the Chair said. And I think maybe 18 19 that creates a certain amount of ownership on this 20 issue for all of us, because we're so identified and 21 it's such a driver to our economy and will continue 22 to be that innovation.

And we absolutely don't want to stifle that, but at the same time we have a population that wants a clean environment. They keep voting for it

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over and over again. We know that our Legislature,
 our Governor certainly supports all of this. And so
 we have that alignment, which is really kind of a
 blessed place to be right now.

5 So anyway with that, I think we have two, 6 we have "a" and a "b," do we need to do those 7 separately or do we do both? There's the Negative 8 Declaration and then there's the Standards.

9 MS. DECARLO: You can do them together if 10 that's your preference.

11 COMMISSIONER MCALLISTER: Okay. Great, so
12 if there's no further comment I'll move Item 7.

13 COMMISSIONER HOCHSCHILD: Second.

14 CHAIRMAN WEISENMILLER: All those in favor?15 (Ayes.)

16 CHAIRMAN WEISENMILLER: This item passes 517 O. Thanks. Thanks for being here.

We had indicated, before the meeting started, that we were going to deal with Item 8 right after lunch to give the participants in that process more of a time certain.

22 So let's skip on to Item 9.

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MS. PASHA: Hello again Chair and
Commissioners, my name is Soheila Pasha. With me is

Michael Murza from the Commission's Chief Counsel

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1 Office.

I am here to present Item 9, Proposed Updates to the Voluntary California Quality LED Lamp Specification. This will become Version 3.0 of the Specification.

6 The purpose of the Specification is to 7 establish high quality levels of performance for LED 8 light bulbs that are used in general service 9 applications, meaning where incandescent light bulbs 10 are typically found such as in your table lamp, 11 overhead lighting, chandelier, or desktop or task 12 light.

13 The goal is to promote LED light bulbs that 14 will match with what consumers expect from their 15 traditional incandescent lighting and avoid the 16 early experience that many consumers had with CFLs, 17 which led to dissatisfaction and low market 18 adoption. The Specification is used by other 19 parties, especially the utilities as a basis for 20 providing rebates for these products.

The Energy Commission first published a
Voluntary Specification in December 2012 and updated
it two years later. Both of those versions
essentially aligned with ENERGY STAR's Program,
although they set higher levels for color quality,

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1 dimmability and warranty.

For this Updated Specification, staff proposes that the Commission align with the mandatory requirements that will take effect on January 1, 2018 for state-regulated LED lamps under the Title 20 Appliance Efficiency Standards.

7 The Specification will incentivize early 8 adoption of these standards. The goal of this is to 9 help prepare the market ahead of these mandatory 10 standards and accelerate market transformation 11 toward LEDs and away from less efficient 12 incandescent, halogen, and CFL technologies.

13 The proposed update will also cover a 14 different scope of lamps than those covered under 15 the previous Specifications. For example, 16 candelabras with decorative light distributions were 17 not previously covered under the Specification, but 18 would be under this update. LED downlight retrofit 19 kits were covered under previous Specifications, and 20 continue to be covered under the new version. 21 However, even lamps that are not covered under the 22 new Specification may be considered for rebating 23 under other programs, such as ENERGY STAR. 24 The proposed update makes a number of

# 25 changes from the previous specifications in order to

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1 align with Title 20.

First, it sets a new minimum efficacy requirement. The level that manufacturers must meet is determined through a compliance score, which is based on a calculation of the lamp efficacy and minimum color-rendering index.

Second, the light distribution requirements are updated for omnidirectional A-lamps to ENERGY STAR Version 2.0. Decorative lamps must meet ENERGY STAR Version 1.1. Lamp shapes that are not addressed do not have to meet light distribution requirements.

13 Third, while previous specifications were 14 limited to bulbs with either a 2,700 K or 3,000 K 15 correlated color temperature, CCT, or warmness, this 16 proposed update would allow a much wider range of 17 CCT.

18 Finally, the proposed Specification aligns 19 its chromaticity, color consistency, and color 20 metrics with those established in the Title 20 21 Standards.

Under the mandatory Title 20 Standards, manufacturers must meet a specific minimum efficacy and CRI level by January 1, 2018, then meet a more stringent level a yea-and-a-half later by July 1,

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1 2019. Similarly, the proposed updates to the 2 voluntary Specification is structured into two 3 tiers. Light bulbs that are rebated after today's 4 adoption and before January 1, 2018, must meet the Tier 1 Title 20 levels, while lamps manufactured on 5 or after January 1, 2018 will need to meet the Tier 6 7 2 levels. This is to encourage early adoption of 8 the Title 20 standards.

9 This timing may mean that some phased-in 10 implementation between the previous specification 11 and this new one is necessary to ensure that there 12 is no gap in rebates offered, and staff supports 13 this kind of phased-in implementation.

14 Staff provided a 30-day comment period on 15 the specification and received a number of comments. 16 The report before you today makes minor 17 modifications and clarifications in response to some 18 of these comments, including one that clarifies 19 reporting requirements for light bulbs that may 20 still be undergoing testing using the new federal 21 test procedures in order to ensure a smooth 22 transition to that new test procedure. However, staff does not recommend any 23 24 changes where comments merely disagreed with the

25 underlying Title 20 Appliance Efficiency

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1 Regulations, such as disagreeing with the standby 2 power limit for connected LED lamps. 3 In conclusion, I recommend that the 4 Commission approves Item 9. I am happy to answer 5 any questions. 6 CHAIRMAN WEISENMILLER: Thank you. 7 Let's start with public comments from those 8 in the room, PG&E? MR. OLINEK: Spencer Olinek, Pacific Gas 9 10 and Electric. I just wanted to come up and thank 11 the Commission and staff for their hard work on this 12 effort. 13 PG&E supports the adoption of update to 14 Specification 3.0. We appreciate the time and 15 resources that Commission staff has invested in 16 revising the Specification to sync with the evolving 17 LED replacement lamp market. We hope that programs 18 emerging from this revision further encourage 19 customer investment in high quality LED lighting 20 products replacing remaining inefficient or 21 undesirable predecessor technologies. 22 The CEC, CPUC and IOUs share a common 23 vision to promote energy efficient and high-quality 24 LED products. The Upstream Lighting Program 25 incentivizes qualifying LED products to avoid the

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customer satisfaction issues that effectively capped
 CFL saturation near 30 percent. If the Upstream
 Lighting Program pushes manufacturers towards high
 quality products, customer satisfaction with LEDs
 should accelerate industry transformation.

6 Additionally, and specifically, PG&E 7 appreciates the inclusion of language in Chapter 2 8 pointing to development of programs to include 9 products that are not covered by the specification. 10 We hope to support the upcoming effective date of 11 the Small Diameter Directional Lamps Rulemaking by 12 proposing programs for this product category as 13 well. Thank you.

14 CHAIRMAN WEISENMILLER: Thank you.

15 Anyone else in the room or on the line who 16 has comments on this item?

17 (No audible response.)

18 Okay. So let's transition to the

19 Commissioners, Commissioner McAllister?

20 COMMISSIONER MCALLISTER: Yeah, so another 21 -- it's really great to have these long efforts come 22 to fruition and be able to talk about them a little 23 bit at a Business Meeting. I'll try to be briefer 24 than the last one. But the LED marketplace, as you 25 all know, is incredibly dynamic. I mean it's moving 66

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every day and it's providing a lot of products that
 do just incredible things.

3 The incandescent replacement market and the 4 CFL replacement market are just the bread and butter 5 of lighting. And this Specification -- I don't want to repeat what Soheila said -- but we're trying to 6 7 have everyone kind of on the -- for that massive 8 market -- kind of row in the same direction. And so 9 that's why it makes sense to sort of utilize the voluntary spec as a preamble to the long-term 10 11 mandatory spec. And so aligning those two just made 12 a lot of sense, which is not to say that there 13 aren't lots of other interesting submarkets that 14 LEDs can provide great service to. That's 15 absolutely the case.

But the bulk market -- we need to get rid 16 17 of the under-performing lamps. I just did in my own 18 house, just an anecdote, in a new house replaced a whole bunch of lamps. And it's literally night and 19 20 day between just between what was there, the 21 incumbent technology, the residual technology and 22 something new that performs. It's just 23 unbelievable.

And the products on the marketplace are moving in a great direction. And this is a little

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1 push that hopefully the IOUs can use or the market 2 can sort of embrace to push that innovation a little 3 bit faster and push that development a little bit 4 faster, so that's the idea. So that's kind of the 5 rational for aligning with Title 20.

6 So anyway thanks to Soheila and Kristin and 7 The report, I think again Peter Strait has Leah. 8 provided a lot of leadership over the years in this 9 area, and certainly on this report. Pat Saxton, who 10 was my former advisor went back to the Appliances 11 Office and you're not at the Division yet, Kristen, 12 sorry -- and Kristin and Leah's as leadership as 13 well. So again a team effort that's heading in a 14 really good direction.

15 So with that I'll -- any other comments?
16 No, okay. Great, and this is Item 9, right?

17 COMMISSIONER DOUGLAS: Uh-huh.

18 COMMISSIONER MCALLISTER: Okay. I'll move
19 Item 9.

20 COMMISSIONER DOUGLAS: Second.

21 CHAIRMAN WEISENMILLER: All those in favor?
22 (Ayes.)

23 CHAIRMAN WEISENMILLER: Item 9 passes 5-0.

24 Thanks.

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Let's go on to Item 10, ConSol Home Energy

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1 Efficiency Rating Services, CHEERS.

2 MS. CHAN: Good morning Chairman and 3 Commissioners, I'm Suzie Chan of the Existing 4 Building and Compliance Office in the Efficiency 5 Division. I am here to present for your 6 consideration ConSol Home Energy Efficiency Rating 7 Services, or CHEERS, to be approved as a Home Energy 8 Rating System or HERS Provider.

9 Upon approval, CHEERS would be able to 10 oversee and train HERS Raters conducting field 11 verification and diagnostic testing to verify 12 compliance with the requirements of the 2016 13 Building Energy Efficiency Standards for Residential 14 Buildings and CHEERS HERS Data Registry as a 15 residential data registry, as required by the 2016 16 Standards.

Staff reviewed CHEERS' application 17 18 including its updated training materials and 19 concluded it meets the requirements of the 2016 20 Standards and the HERS Regulations. Staff also 21 tested and validates CHEERS HERS Data Registry meets 22 compliance with Section 10-109(i) and Joint 23 Reference Appendix JA7 of the 2016 Standards. 24 Based on this information, staff asks for 25 you to confirm the Executive Director's findings and 69

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adopt his recommendations to certify CHEERS as a
 HERS Provider for field verification and diagnostic
 testing as required by the 2016 Standards for
 residential buildings and certify the CHEERS HERS
 Data Registry as a residential data registry as
 required by the 2016 Standards.

7 The Executive Director's recommendation was 8 posted on the website and made available for public 9 comment on November 18, 2016. The approval of 10 CHEERS as a HERS Provider will satisfy the 11 requirements of Title 24, Part 6 where HERS field 12 verification and diagnostic testing is required for 13 compliance with the 2016 Standards, which will go 14 into effect January 1st, 2017.

15 The Efficiency Lead Commissioner has 16 reviewed this item. Thank you for your 17 consideration and I am available to answer questions 18 and staff from CHEERS is also here to answer

19 questions. Thank you.

CHAIRMAN WEISENMILLER: Great, thank you.
 Let's start with Mike Hodgson. Please come
 on up, the Applicant.

23 MR. HODGSON: Good morning and Happy
24 Holidays, Commissioners. I'm Mike Hodgson,
25 Principal at CHEERS. Jay Lenzmeier, who is the

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1 Executive Director is under the weather today, and 2 cannot attend. Jay and I would like to express our 3 support for the approval of CHEERS for the 2016 4 Building Energy Efficiency Standards for Residential 5 Buildings. And we'd like to express our sincere thanks to CEC staff Bill Dietrich, Suzie Chan, 6 7 Rashid Mir and Tav Commins, and the management team 8 for expediting our approval.

9 I'm here to answer any questions and wish 10 you a happy Christmas.

11 CHAIRMAN WEISENMILLER: Thank you.

12 First, is there anyone else in the room or 13 on the line who has comments on this item?

14 (No audible response.)

15 Okay. So let's transition to Commissioner 16 McAllister again.

17 COMMISSIONER MCALLISTER: Great, so Mike 18 thanks for your leadership in this space. This is 19 one aspect of it, but I think it's a good 20 accomplishment here to have a second provider. So 21 that's great, so thanks for pushing this forward. 22 Thanks to staff for working on this and 23 then bringing this before us. 24 And it's kind of an appropriate moment to

25 have a little reminder, now that we're almost at the **CALIFORNIA REPORTING, LLC** 

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1 end of the year, that the 2016 Standards are about to come into effect. January 1st, 2016 the Building 2 3 Efficiency Standards take effect, so they will be the law of the land. There's been transition 4 5 happening for a while now and I think the 6 marketplace is very ready for it. And I'm very 7 proud to say that. I'm very happy to say that, 8 because that's been the plan and I think the 9 execution from staff for this update has been great.

10 And I want to thank Dave and Christine all 11 for that, in setting the tone that we're getting 12 this done and there are a lot of steps to get the 13 Building Efficiency Standards ready for 14 implementation in the marketplace. Having the 15 providers there, that have been approved for this 16 cycle, is one the key things. And so again I want 17 to thank Mike for getting that done in time for the 18 effective date and for staff for helping achieve 19 that.

But just to be clear, I'm going to rattle off a few steps here that we've gone through over the last year just to remind everybody what an endeavor this is. So we needed the software, the CBECC-Res and Com modeling software to enable buildings to comply, to see whether they comply, and

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1 then comply.

That then needs compliance manuals. Each one of those needs compliance manuals for the whole package, the reference manuals to back up the compliance manuals. These are quite involved documents with a lot of stakeholders involved and a lot of detail. And then those of you who are in this space know how much detail.

9 Certainly going forward we're looking for 10 places, particularly in existing buildings, where we 11 can make the Code easier to navigate or more 12 straightforward to navigate. And we are working 13 with lots of stakeholders on that including building 14 departments all across the state. I'm very 15 optimistic about how that can help us in the 2019 16 cycle and just going forward.

17 But we, middle of the year I think we 18 adopted or we released an earlier adopter guidance 19 for the new Code Update, so the market could get 20 ready for it and start using it, start anticipating 21 it for this January 1. We had some ordinances at 22 local governments that came forward and adopted it 23 ahead of time. So San Mateo and Palo Alto, among a lot of other stretch codes that we've been working 24 through with local governments, which are a really 25

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key thing for them to reach their goals and
 therefore for the state to reach our goals.

3 The Outreach and Education is something 4 that I can't say enough wonderful things about. 5 Chris Olvera and his team have just been so accessible. They've been doing almost a continual 6 7 road show to go around the state and help people 8 understand the Standards. The hotline that we man, 9 that we staff, just gets a lot of calls and make 10 about a really high quality service. They are open 11 for business and ready for questions, so definitely 12 use that resource.

13 We had CalCERTS approved as a provider and 14 now CHEERS, so the providerships are ready to go and 15 training people. And then the ATTCPs for Lighting 16 and Mechanical, which are commercial, for the most 17 part, focusing on commercial and multifamily. But we have providers there. We haven't hit the 18 19 thresholds yet, but we have providers ready for 20 those as well. Actually, I guess the lighting 21 threshold has been met and the program is actually a 22 requirement, but the mechanical is still not quite 23 there. But we have providers that are open for 24 business, training people and ready to go.

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And so all of those conditions, when we

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1 pass a regulation, it affects the marketplace. And 2 I think an acknowledgement of that is that we put 3 the resources in place in a timely way to help the 4 marketplace and avoid a stumble when the new regs 5 come into place.

6 And I just want to really congratulate 7 staff for getting this done and just everyone 8 evolved on the really does the Standards Development 9 Office and the implementation team, where this is 10 again another thing that takes literally a village. 11 I think this is probably the biggest set of people 12 involved in almost anything we do in the Division. 13 So it's a big accomplishment.

And I'm very hopeful that we've built a solid foundation for the 2016 Standards that we can really build on in the 2019 when we're trying to go ver further. So I want to just thank staff again and in this case you, Mike, and all your efforts too.

20 So with that, any other comments? 21 COMMISSIONER DOUGLAS: Just a brief comment 22 again, like the other items. It's a big day for 23 Efficiency I think, at this Business Meeting. And I 24 just want to congratulate you and the staff for your 25 good work.

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1 COMMISSIONER MCALLISTER: Okay, so I will 2 move Item 10. 3 COMMISSIONER DOUGLAS: Second. 4 CHAIRMAN WEISENMILLER: All those in favor? 5 (Aves.) 6 CHAIRMAN WEISENMILLER: Item 10 passes 5-0. 7 Thank you. 8 Let's go on to Item 11. MR. GARCIA: Good morning, Commissioners, 9 10 Chair Weisenmiller. Good morning, my name is Cary 11 Garcia. I'm the Lead Forecaster for the Demand 12 Analysis Office. Today I'm submitting a proposed 13 resolution to adopt the Forms and Instructions for 14 Submitting Electricity Demand Forecasts prepared in 15 support of the 2017 Integrated Energy Policy Report. 16 As we know, Public Resource Code 25310(a) 17 directs the California Energy Commission to, 18 "conduct assessments and forecasts of all aspects of 19 energy industry supply, production, transportation, 20 delivery and distribution, demand, and prices." 21 Furthermore, we are directed to "use these 22 assessments and forecasts to develop energy policies 23 that conserve resources, protect the environment, 24 ensure energy reliability, enhance the state's 25 economy, and protect public health and safety."

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For this iteration of the Demand Forms and Instructions, we are asking load-serving entities to provide the Energy Commission with load data, economic/demographic information, demand-side management impacts, and other data related to energy demand for the historical years 2015-2016 and the forecast horizon through 2028.

8 Aside from the updated forecast horizon, we 9 have included a request for commercial load-shape 10 data mapped to our 20 forecast zones supporting 11 continued improvements in forecast disaggregation 12 and distributed generation modeling. In addition, 13 we have updated our data request for Community 14 Choice Aggregators for requesting cost data as well 15 as more comprehensive forecast documentation to 16 improve our assessments of energy efficiency 17 programs, distributed resources, or any additional 18 programs or technologies that may impact long-term 19 forecasts of electricity demand in areas served by 20 these entities.

A public workshop was held on October 13th to present the draft version of the forms and public comment has been incorporated as appropriate.

In closing, staff recommendations that the Energy Commission adopt the proposed resolution for

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Submitting Electricity Demand Forecasts prepared in
 support of the 2017 Integrated Energy Policy Report.
 If you have any questions I'll be more then
 helpful to answer.

5 CHAIRMAN WEISENMILLER: Great. Thank you.
6 First, is there any comments from anyone in
7 the room or on the line?

8 (No audible response.)

9 Okay. So then let's transition to 10 Commissioners. The Lead in this area, I can say 11 that obviously our forecast is really pivotal for 12 the state in terms of trying to understand needs 13 going forward. It's used as the basis for planning 14 by the other state agencies. And at the same time 15 the demands on it are increasing every year, 16 particularly as we're trying to capture more 17 granularity and location at the same time capturing 18 more what's going on behind the meter. So and 19 particularly now with the requirement to really 20 double down on energy efficiency.

21 Next year is going to be really pivotal in 22 terms of starting to get the data in place to go 23 forward. Ultimately, over time -- I assume again 24 this is going to be a multi-year process to get to 25 where we need to get to -- but next year is a really 78

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1 important first step on this effort. 2 So again I certainly thank the staff for 3 their hard work on this. Anyone else? 4 COMMISSIONER SCOTT: I'll move approval of 5 Item 11. 6 COMMISSIONER DOUGLAS: Second. 7 CHAIRMAN WEISENMILLER: All those in favor? 8 (Ayes.) 9 CHAIRMAN WEISENMILLER: So this passes 5-0. 10 Thanks. 11 MR. GARCIA: All right, thank you. 12 CHAIRMAN WEISENMILLER: Let's go on to 12. 13 I was going to say we're moving a little bit faster 14 than we had been anticipating, but again we will 15 take up Item 8 right after lunch. We wanted to give 16 it a time certain and at this point that will be 17 1:00 o'clock. 18 So go ahead. 19 MR. HINGTGEN: Good morning, Commissioners, 20 my name is John Hingtgen. I work in the Energy 21 Assessments Division. 22 Every two years the Commission produces 23 Assessments and Forecasts of Energy Supply. To make 24 these assessments, the Commission requires load-25 serving entities to submit resource supply data and

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1 forecasts. Authority to collect this data is based 2 on Public Resources Code 25301(a).

3 Staff prepared draft resource forms and 4 held a workshop on October 13th this year to present 5 the forms to utilities. The comment period was open 6 until October 27th and no comments were received.

7 Since the last cycle, staff updated the 8 data collection in several ways. Cover letters and 9 transmittal emails are no longer necessary. Filings 10 now use the eFiling system, including confidential 11 filings. Docketed filings with confidential data 12 will be reviewed by an attorney. When new 13 confidential information is similar to previous 14 information, filers may submit a statement to this 15 effect and they need not file a new application for 16 confidentiality.

17 The draft 2017 Resource Forms have the 18 following updates. The instruction sets for 19 describing capacity and energy have been combined. 20 Contracts are now reported on one sheet and 21 categories have been modified to clarify status. 22 Instructions are included to ensure consistent use 23 of data formats. 24 The due dates to file the resource forms

25 will be as follows: April 21st, 2017 for other than

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1 investor owned utilities and April 28th for investor 2 owned utilities.

The Northern California Power Agency is being requested to file forms on behalf of 10 loadserving members of the NCPA power pool. On the advice of Counsel, staff recommends adding a statement to the instructions listing the member entities for which NCPA should file data.

9 Approval of the draft forms would allow
10 staff to prepare final forms and issue them for
11 reporting data. This would result in the timely
12 collection of resource data for incorporation in the
13 2017 IEPR. And staff recommends approval.

14 CHAIRMAN WEISENMILLER: Thank you.

15 First, is there any comments from anyone in 16 the room or on the line?

17 (No audible response.)

18 And again, transition to the Commissioners. 19 And this is going to be a -- obviously, there's both a demand and supply side and a supply 20 21 side -- so trying to put in place this part of the 22 puzzle is going to be an important piece of moving 23 forward on the next IEPR. So again, I think this is 24 certainly very important as the next one of the 25 steps we're going to -- one of the building blocks

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1 we're going to need for the 2017 IEPR.

2 So thanks, staff, for the hard work. 3 COMMISSIONER MCALLISTER: I just want to 4 say I'm feeling pretty optimistic about all the 5 different fronts we've got going on in coordination 6 at the moment. We have to be vigilant, but there 7 are so many different fronts in this overall 8 strategy to put the conditions in place to really by 9 in 2017, and then particularly in sort of all guns blazing there in 2019, in terms of having everything 10 11 in place. 12 But I want to thank you for your leadership 13 in making sure all of these different threads are 14 being woven together in a way that makes sense. 15 CHAIRMAN WEISENMILLER: It's certainly 16 challenging, but a good opportunity for the state. 17 COMMISSIONER MCALLISTER: So I'll -- oh, any other comments? No. Okay, I'll move Item 12. 18 19 COMMISSIONER DOUGLAS: Second. 20 CHAIRMAN WEISENMILLER: All those in favor? 21 (Ayes.) 22 CHAIRMAN WEISENMILLER: This item also 23 passes 5-0. 24 So let's go to Item 13. 25 MR. GATES: Good afternoon, my name is

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Thomas Gates. I'm the Supervisor of the Cultural
 Resources Unit of the Siting Transmission and
 Environmental Protection Division.

The Genesis Solar Energy Project, project number 09-AFC-08, sited in the Chuckwalla Valley, Riverside County was licensed by the Energy Commission in September 2010. During project construction in 2011, an archeological cite discovery was made by cultural resources and Native American project monitors.

11 It was determined that cite avoidance was 12 not feasible and therefore the ensuing damage to the 13 archeological site was mitigated through 14 compensation. The mitigation package was negotiated 15 among the Project Owner, the Bureau of Land 16 Management and Energy Commission staff and in 17 consultation with 16 culturally affiliated tribes. 18 The mitigation package, totaling \$3.04 19 million involved three broad categories of 20 compensatory mitigation activities: archeological, 21 ethnographic and public outreach. 22 It was also agreed between the two 23 licensing agencies that the archeological mitigation 24 would be overseen by both agencies, but that the 25 ethnographic mitigation would be overseen by the

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Bureau of Land Management. And that the Energy
 Commission staff would oversee the public outreach
 mitigation.

Tribes were included in the mitigation 4 negotiation and implementation, via a tribal working 5 6 group that met on a quarterly basis and deliberated 7 on the three categories of mitigation and 8 particularly the public outreach component. As the 9 various public outreach mitigation pieces moved 10 toward completion, two pieces languished. As the 11 result of tribal agency working group deliberation, 12 the languishing mitigations were transferred to the 13 Energy Commission, via an Energy Commission and 14 NextEra set of correspondences. Funds were 15 transferred from NextEra to the Energy Commission in 16 November 2015.

17 In August, 2016 the Commission authorized 18 staff to enter into contract with the California 19 State University Chico State Research Foundation to 20 produce a 26-minute documentary that highlights the 21 rich cultural heritage of the Ford Dry Lake area and 22 the relationship of current tribes to that heritage. 23 The contract before the Commission today 24 would move the public outreach mitigation further

# 25 towards completion by providing energy developers,

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agency personnel, tribal government staff, and the 1 2 public with a document that explains the renewable 3 energy compliance processes, case examples, and 4 tribal perceptions of the renewable energy processes 5 including facility citing, amendment, construction and mitigation concepts as relates to cultural 6 7 resources identification, assessment, discovery and 8 mitigation.

9 Staff requests that the Commission pass the 10 proposed resolution approving Agreement 700-16-001 11 with Douglas Deur, PhD, LLC, for a \$225,851 contract 12 to produce a report that provides technical 13 information, complimenting the video production, to 14 be conducted by Chico State, but that focuses on 15 energy facility citing processes as relates to 16 cultural resources and related Native American 17 heritage values. And I'm available for any 18 questions.

19 CHAIRMAN WEISENMILLER: Thank you. Is 20 there anyone in the room or on the line who has 21 comments on this item?

22 (No audible response.)

23 And again, let's transition to the 24 Commissioners. Commissioner Douglas?

25 COMMISSIONER DOUGLAS: I just want to say

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1 this is an important contract. We really need to be 2 able to move forward and complete this work. And as 3 Tom alluded to, there have been a lot of work that's 4 been done under the mitigation for this project. 5 There have been a large number of tribes very involved and we really -- it's really important to 6 7 see this work through. And so getting this contract 8 in place is critical in doing that. So I just 9 wanted to thank Tom and the staff who work with him 10 on their efforts and I'll look forward to supporting 11 this. 12 In fact, if there are no other comments, 13 I'll move approval on this item. 14 COMMISSIONER SCOTT: Second. 15 CHAIRMAN WEISENMILLER: All those in favor? 16 (Ayes.) 17 CHAIRMAN WEISENMILLER: This passes 5-0. 18 Okay. We'll do one last item and then go. 19 So number 14. Please go ahead. Yeah, why don't you 20 come forward and then after this item we're going to 21 go for lunch. 22 MR. CHAUDHRY: Okay, thank you so much.

23 CHAIRMAN WEISENMILLER: Sure.

24 MR. CHAUDHRY: Good morning, Commissioners.
25 I'm Shahid Chaudhry with the Local Assistance and

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1 Financing Office of the Energy Efficiency Division.

I am here to request your approval for a 3 \$136,000 ECAA loan at 1 percent to the North Net 4 Training Authority. North Net Training Authority is 5 a joint powers agency created by the cities of 6 Anaheim, Garden Grove, and Orange; and provides 7 training to firefighters.

8 The Authority will use the ECAA loan to 9 make an existing HVAC system energy efficient by 10 replacing air handling units and installing a new 11 control system. Upon completion, the project will 12 reduce about 46,000 kilowatt hours of grid 13 electricity consumption annually saving the 14 Authority estimated \$8,000 in utility costs. In 15 addition, the project will reduce about 15.8 tons of 16 carbon dioxide equivalent greenhouse gas emissions 17 every year.

18 Based on the loan amount and utility cost 19 saving, the simple payback is approximately 17 20 The loan request is in compliance with the vears. 21 terms and conditions of the ECAA Loan Program; 22 staff, therefore requests your approval of this 23 loan. 24 CHAIRMAN WEISENMILLER: Thank you.

25 First, any comments from anyone in the room 87

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1 or on the line?

2

(No audible response.)

3 CHAIRMAN WEISENMILLER: Okay, then we'll4 transition to Commissioner McAllister.

5 COMMISSIONER MCALLISTER: Yeah, just 6 quickly. This is the kind of project that is hard 7 to do without this kind of support. It's a 8 relatively long payback, relatively capital 9 intensive, and takes good planning and takes good 10 execution to really realize those savings. And I 11 think this is an area where ECCA really makes a big 12 difference. It's good for everything, lighting and 13 renewables and everything, but I think those longer 14 lived, longer payback retrofits and upgrades, are 15 really key for us meeting our goals. And ECCA's a 16 great place for public entities to come, so I'm very 17 supportive of this project.

18 MR. CHAUDHRY: Thank you, Commissioners.
 19 COMMISSIONER MCALLISTER: So any other
 20 comments? No, so I'll move Item 14.

21 COMMISSIONER SCOTT: Second.

22 CHAIRMAN WEISENMILLER: All those in favor?23 (Ayes.)

24 CHAIRMAN WEISENMILLER: This item, Item 1425 also passes 5-0. Thank you.

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1 MR. CHAUDHRY: Thank you so much, 2 Commissioners.

3 CHAIRMAN WEISENMILLER: Okay. So we're 4 going to break for lunch now. We'll be back at 5 exactly 1:00 to take up Item 8. Thanks. 6 (Off the record at 11:55 a.m.) 7 (Back on the record at 1:03 p.m.) CHAIRMAN WEISENMILLER: Commissioner 8 9 McAllister said he was going to be a little bit 10 late, but in the interest of being timely start the 11 staff presentation on Item 8. 12 MS. MATHEWS: Good afternoon Chair and 13 Commissioners, I'm Alana Mathews, the Public 14 Adviser. And I'm pleased to present for your 15 adoption today the Low-Income Barriers Study, Part A 16 Overcoming Barriers -- oh, I should do this first, 17 let me pull up the presentation. 18 I'm pleased to present for your adoption 19 today the Low-Income Barriers Study, Part A 20 Overcoming Barriers to Energy Efficiency and 21 Renewables for Low-Income Residents and Small 22 Business Contracting Opportunities in Disadvantaged 23 Communities. 24 As you are aware this study was prepared in 25 accordance with the mandates of the Clean Energy and

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Pollution Reduction Act of 2015, also known as SB
 350, which Governor Brown signed into law on October
 of last year.

4 In addition to establishing new energy 5 efficiency and renewable energy targets SB 350 6 directed the Energy Commission to complete a study on the barriers to, and opportunities for, low-7 8 income customers increased access to renewable 9 energy and energy efficiency in weatherization 10 investments as well as clean energy contracting 11 opportunities for small businesses and disadvantaged 12 communities.

13 SB 350 also directed the California Air 14 Resources Board to complete a companion study, the 15 Low-Income Barrier Study, Part B, which addresses 16 the barriers low-income customers face to clean 17 transportation. We have worked closely with the Air 18 Resources Board and Ashley Dunn, the lead for their 19 companion study. Ashley is present today and will share more about our coordination efforts and 20 21 provide an update on their companion study. 22 In this presentation today I will cover 23 five topics: the process, the barriers, the 24 recommendations, our acknowledgements and next steps 25 for the Barrier Study. So let's begin with an

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1 overview of the process for completing this study.

The three informational pillars, which informed this study included a literature review, targeted outreach through community meetings across the state, and public workshops.

First, the Energy Commission performed a
literature review of more than 100 available studies
on the topic areas identified in the statute.

9 Second, the Energy Commission and staff 10 participated in a series of meetings across 11 California led by community-based organizations. 12 Seven community meetings were held in locations 13 reflecting the regional and demographic diversity of 14 the state, which included East Los Angeles, Fresno, 15 Riverside, Oakland, Truckee, South Lake Tahoe, 16 Ukiah, and Los Angeles. In total, 158 members of 17 the public participated in these meetings, which 18 allowed an opportunity for them to speak about their 19 experiences with renewable energy, energy efficiency 20 and weatherization programs.

Third, the Energy Commission hosted public technical workshops for public agencies, the utilities, industry representatives, and environmental justice and equity advocates to share their expertise on barriers and solutions to clean

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1 energy for low-income customers.

2 Through this process staff identified the 3 key barriers facing low-income customers, which are 4 categorized in the study into the following three 5 sections. Structural barriers limiting access to 6 clean energy for low-income customers, policy and 7 program barriers limiting access to clean energy for 8 low-income customers, and local small-business 9 challenges and opportunities in disadvantaged 10 communities.

11 Structural barriers are just that, 12 structural, inherent to the conditions of poverty in 13 California. These barriers may be mitigated, but 14 are difficult to eradicate. Structural barriers 15 limiting access to clean energy for low-income 16 customers include low home-ownership rate, complex 17 needs, ownership, and financial arrangements for 18 low-income multifamily housing residents, 19 insufficient access to capital, building age, remote and underserved communities. 20

21 Program and policy barriers are barriers 22 that stem from policy and program decisions and they 23 may be overcome through new policy development or 24 program refinements. There are several policy and 25 program barriers limiting low-income customers'

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1 access to energy efficiency and renewable energy. 2 These challenges relate to market delivery, program integration, data limitations and unrecognized non-3 4 energy benefits. I have highlighted program 5 integration, because it should be noted for clarification that within this section of the study, 6 7 in Chapter 4 on page 56, there's a reference to 8 Assembly Bill 327. And that reference pertains to 9 IOU residential customers. Appropriate language has 10 been added in the study to reflect this distinction. 11 Small business and small business 12 challenges for opportunities in disadvantaged 13 communities are unique. They include contracting 14 opportunities with state government. Available 15 statistical information indicates thousands of small 16 businesses are in zip codes with disadvantaged 17 communities. Barriers to expanding small-business 18 contracting opportunities include lack of access to 19 information on small businesses in disadvantaged 20 communities, technical assistance and workforce 21 development needs, financial obstacles which is a 22 lack of access to capital, and a lack of access to 23 support and opportunities where there is a greater

## 25 subcontracting opportunities for small businesses.

need for access to administership, networking and

24

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Focusing on the recommendation, the study 1 2 concludes with several recommendations with three 3 goals in mind: offer scalable sustainable solutions, 4 address low-income customers inability to access 5 traditional financing mechanisms available to most 6 Californians, and lastly help maximize public 7 investments to achieve our state's clean energy 8 qoals.

9 The study identifies the following five 10 principal recommendations to promote a coherent 11 vision for low-income clean energy programs, explore 12 innovative solutions to expanding access, and ensure 13 the economic benefits of public investments are 14 realized by low-income customers and disadvantaged 15 communities.

16 These recommendations are as follows: the 17 state should establish a task force to facilitate 18 coordination of all state agencies administering 19 energy, water resilience, housing and low-admissions 20 transportation infrastructural programs for low-21 income customers and disadvantaged communities. The 22 state should act to enable the economic advantages 23 of community solar to be readily accessible to low-24 income and disadvantaged populations across California. 25

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1 The Energy Commission, the California 2 Public Utilities Commission, and the California 3 Department of Community Services and Development should partner with the California Labor and 4 5 Workforce Agency, and workforce investment boards, 6 community colleges and other agencies. As well as 7 consult with employers, the UC Berkeley Labor Center 8 and relevant trade unions and community-based 9 organizations to strategize and track progress of 10 workforce community and clean energy goals.

11 The state should continue developing a 12 series of energy upgrade financing pilot programs to 13 evaluate a variety of models to improve access and 14 participation of programs serving low-income 15 customers. The Legislature should also require 16 collaboration among all program delivery agencies to 17 establish common metrics, and collect and use data 18 systematically across programs to increase the 19 performance of these programs to increase the 20 performance of these programs in low-income and 21 disadvantaged communities. 22 COMMISSIONER HOCHSCHILD: I appreciate the 23 mood lighting, but I think someone may have been

24 leaning against the light switch somewhere? Okay.

25 There it goes, thanks.

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MS. MATHEWS: The report recommends seven
 additional strategies to address the barriers
 identified in this study and compliment the
 principal recommendations provided above.

5 The Legislature should expand opportunities 6 for low-income and disadvantaged communities to use 7 photovoltaic and solar-thermal technologies. The 8 California Tax Credit Allocation Committee should 9 consider enhancing their priority of affordable 10 housing tax credits as well as the California 11 Alternative Energy and Advanced Transportation 12 Financing Authority should consider providing 13 financial assistance such as credits enhancement to 14 support energy efficiency and renewable energy 15 improvements.

16 The state, in consultation with the Energy 17 Commission, the CPUC, the Air Resources Board, and 18 the Department of Community Services and 19 Development, and other related state and local 20 agencies, should establish a pilot program for 21 multiple regional one-stop shops to provide 22 technical assistance, targeted outreach and funding 23 service to enable owners and tenants of low-income 24 housing across California to implement clean air 25 energy upgrades.

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1 The state in coordination with local 2 authorities and consumer protection agencies, should 3 investigate the need for heightened consumer 4 protections to help prosecute companies that use 5 misleading information or engage in predatory 6 practices.

7 The Legislature should direct funding for 8 all state programs to collaborate with trusted and 9 qualified community-based organizations in 10 community-centric delivery of clean energy programs. 11 The Energy Commission and the CPUC should direct 12 research development, demonstration and market 13 facilitation programs to include targeted benefits 14 for low-income customers and disadvantaged 15 communities.

And lastly, the state should conduct an indepth data-driven study in consultation with local business chambers, community-based organizations, technical assistance providers, and small businesses to determine actions for increasing contracting opportunities for small businesses in low-income and disadvantaged communities.

23 Lastly, I want to add this report reflects 24 the priority and commitment of the Energy Commission 25 in ensuring that all Californians benefit from clean 97

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1 energy programs and policy. More importantly, it 2 reflects the diligent efforts and expertise of staff 3 who completed the study within the Legislature's 4 ambitious timeline.

5 Accordingly, I would like to recognize and thank all of the staff who made this report 6 possible. And if they're here, if you can just 7 8 Let's start with our primary authors: Jordan stand? Scavo, Esteban Guerrero, Bill Pennington, Pamela 9 10 Doughman, our Research Librarian Christopher Wymer 11 and our Co-Project Manager and 350/802 Project 12 Coordinator Michael Sokol. Advisers Kevin Barker, 13 Emilio Camacho, Rhetta deMesa, Bryan Early, Jennifer 14 Nelson, Eunice Murimi.

We also received valuable input from a host of agencies, industry stakeholders and individuals who are listed in the acknowledgements section of the Low-Income Barrier Study. And many of them are here today.

I would also like to add the following names to the list of acknowledgements. And those additional names from the Energy Commission would include Ken Rider, Matt Coldwell and Erik Jensen, from the Governor's Office of Business and Economic Jesse Torres; California Housing Partnership

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Stephanie Wong and Caroline McCormick; California
 Independent System Operator Thomas Dougherty;
 Greenlining, Alvaro Sanchez; Alex McDonald and Rick
 Brown; Saul Gomez for the California Natural
 Resources Agency; Ashley Dunn and Richard Corey from
 the California Air Resources Board; and Carol Zabin
 from UC Berkeley Labor Center.

8 The report also notes that after 9 publication of the Barrier Study the Energy 10 Commission intends to hold implementation workshops 11 in early 2017 and moving forward the Energy 12 Commission will continue to monitor the status of 13 the recommended actions to help track progress over 14 time.

At this time I am requesting approval of the proposed report, the changes set forth in the errata document, which has been made available to the public, and the final changes discussed during today's business meeting. Thank you.

20 CHAIRMAN WEISENMILLER: Thank you.

Let's go to public comment. First, we'll start with those in the room. And again, those who have comments, do a comments blue card. Jason Wimbley, starting with basically other public agencies first.

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1 MR. WIMBLEY: Jason Wimbley, Chief Deputy 2 Director with the Department of Community Services 3 and Development, and I appreciate the opportunity to 4 provide a few remarks on the Low-Income Barriers 5 Study.

6 First, the Department of Community Services 7 and Development strongly supports the 8 recommendations outlined in the Barriers Study. And 9 further believes that the recommendations, if 10 implemented, will support the Department's mission 11 to reduce poverty in California and improve the 12 ability to provide innovative and effective services 13 and investments to low-income communities.

As administrating a number of federal and state low-income weatherization, renewable energy and utility assistance programs, CEC welcomes greater collaboration and program integration across the state's low-income programs.

19 CEC has previously incorporated a number of 20 the study's recommendations into its existing energy 21 efficiency renewable energy program models. These 22 include integrating water efficiency measures, 23 prioritizing workforce development, and allowing for 24 neighborhood eligibility for services in

25 disadvantaged communities.

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1 We are also exploring opportunities to fund 2 community solar projects and plan to fund a pilot 3 project to support community solar projects under the Low-Income Weatherization Program funded by Cap 4 5 and Trade investments. As such we strongly support 6 the community solar recommendations outlined in the 7 study in order to give the disadvantaged and lowincome communities increased access to renewable 8 9 energy while also lowering their energy bills.

10 In addition to supporting community solar 11 recommendations, CSD would like to highlight the 12 importance of the recommendations to increase data 13 sharing across programs and establishment of a task 14 force for stronger coordination across state 15 agencies. This state collaboration is essential to optimize the utilization of existing program 16 17 resources and effectuate the use of data to assist 18 the targeting of investments and more robust program 19 evaluation.

Finally, CSD would like to voice our support for the establishment of common definitions and metrics for non-energy weatherization benefits and emphasize the importance of not losing sight of the significance of the societal co-benefits these programs provide when evaluating the impact of low-101

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1 income weatherization and energy assistance
2 programs. CSD looks forward to continued
3 cooperation and collaboration with the CPUC, Energy
4 Commission, IOUs and other utility partners as we
5 move forward with implementing the recommendations
6 of this study.

7 This concludes my remarks.

8 CHAIRMAN WEISENMILLER: Thank you. 9 I'm going to walk through our sister 10 agencies. ARB, actually if you have a few comments? 11 MS. DUNN: Good afternoon, Chair and 12 Commissioners, thank you so much for having us here 13 today. My name is Ashley Dunn from the Air 14 Resources Board and I'm the leading staff person 15 that's overseeing the SB 350 Clean Transportation Access Document Development at ARB. 16

17 So Alana invited us here today to briefly 18 discuss our document development efforts as well as 19 our continued coordinating with the Energy 20 Commission. I want to acknowledge the hard work and 21 dedication of Alana and the Barriers Report writing 22 They've been an absolute pleasure to work team. 23 with through this process and our collaboration has 24 really fostered an important partnership, which we 25 look forward to continuing in the future.

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As a reminder, SB 350 directed us to develop a study, which outlines the barriers to zero emission and near-zero emission transportation options for low-income residents in disadvantaged communities. And we've also been tasked as part of that effort with developing recommendations by January 1, 2017.

So based on our meeting so far with low-8 income residents and also with the public, we have a 9 10 pretty clear idea of what the barriers are for clean 11 transportation access. And it provides through this 12 guidance document process a clear framework, which 13 we're going to be studying for with how ARB and the 14 other agencies can move forward towards increasing 15 access to clean transportation.

16 ARB and Energy Commission's public 17 processes were closely integrated together to stress 18 the importance of the tie and the connection between 19 clean transportation and energy for low-income 20 residents in disadvantaged communities. A lot of 21 thought went into how we wanted to tie these efforts 22 together and signal our coordination moving forward 23 in support of increasing transportation 24 electrification and access to energy efficiency 25 programs across the state. So this is why we

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developed the approach of having two parts to the
 report. Part A for Energy and Part B for Clean
 Transportation Access.

4 There are many ways in which we 5 collaborated in this process, which I just want to touch on very shortly. So we jointly attended the 6 7 Environmental Justice Advisory Committee community-8 based meetings together, which was really valuable 9 in providing important input into this process. We 10 also jointly held roundtable meetings with the 11 public. We attended each other's public meetings 12 wherever feasible, which was also very valuable and 13 continue to share lessons learned through this 14 process as we're continuing to meet with low-income 15 residents and the public.

16 Through this close coordination, we've 17 identified similar barriers, which probably isn't much of a surprise including the need to have 18 19 targeted outreach and marketing to really promote 20 increased awareness across the state in addition to increasing the awareness of things like incentives 21 22 and rebate programs for low-income residents in 23 disadvantaged communities.

24 Based on our feedback -- I'll be very 25 brief.

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1 CHAIRMAN WEISENMILLER: Well, you can keep 2 going. Yeah, go ahead.

3 MS. DUNN: From low-income residents and the public, and we've talked to CEC about this, 4 5 we've identified really important synergies between 6 our two reports, which I just want to highlight 7 really quickly. The need for dedicated long-term 8 funding for transformative clean transportation and 9 energy programs, that's a biggie. Also, I kind of 10 alluded to this earlier, the need for localized one-11 stop shops to make sure that we're targeting our 12 education and outreach efforts. And also maximizing 13 economic benefits through things like workforce 14 development, which you heard Alana speak about 15 earlier.

16 So we want to continue to share our lessons 17 learned as part of this ongoing process in 2017. 18 And in terms of remaining milestones I just wanted 19 to let you guys know that we're planning on posting our report by the end of the year. We look forward 20 21 to continuing to work with you through this process 22 and we want to go back to the low-income communities 23 in early 2017 to let them know how their feedback 24 was incorporated into the report. Subsequent to that we'll be providing an Informational Update to 25

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1 our Board.

2 Thank you very much for your time. We 3 really appreciate it.

4 CHAIRMAN WEISENMILLER: Okay. Thank you,5 thanks for being here.

6 MS. DUNN: Sure.

7 CHAIRMAN WEISENMILLER: Workforce
8 Development Board?

9 MS. WHITE: Hi, good afternoon, 10 Commissioners. My name is Sarah White. I'm the 11 Deputy Director at the California Workforce 12 Development Board. I lead the Labor Agency's work 13 on equity climate and jobs and our joint interest, I 14 think, in seeing economic and climate resilience 15 across all of California -- especially in those 16 hardest-hit communities.

17 So we welcome the Energy Commission's 18 report and the focus on expanding renewable energy 19 and energy efficiency in the state's low-income 20 communities, and in particular we're really excited 21 about the focus on employment co-benefits. We 22 especially support there is a specific 23 recommendation around community workforce 24 agreements. That's a strategy that we're working on 25 across environmental and energy agencies to use to

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1 build accessible, local job opportunities.

2 I think that I just want to emphasize, 3 because it's not a huge part of the report, but it's 4 a very important part of the report, that clean 5 energy investments as we know do and can create job opportunities in disadvantaged communities. 6 But we've learned over the last decade that this does 7 8 not happen automatically, that it has to be done 9 intentionally.

10 And the answer is not simply, creating 11 training programs, right? You start with the jobs 12 and then you build local education and training 13 programs that connect local disadvantaged 14 individuals directly with the jobs that are created. 15 It doesn't happen by magic, there's a lot of work to 16 it. And I think that there's a world of experience 17 here in California and around the country on how to 18 do that, right? And so we really emphasize, we 19 really welcome the emphasis in the report on 20 interagency collaboration around these issues. We 21 want to make sure that the efforts of the Energy 22 Commission are tied, as the report shows they are, 23 to the deep knowledge of the existing education and 24 training systems across the state.

And so I want to say that we applaud the 107 CALIFORNIA REPORTING, LLC

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report and we support its recommendations. And
 thank you for inviting us.

3 CHAIRMAN WEISENMILLER: Thank you.
4 Looking around to see if there's anyone
5 from any other state agencies. Anyone from the PUC?
6 Anyone from the State Treasurer's Office? Any other
7 state agency?

8 Let's transition over to public members.9 Sekita Grant, Greenling?

10 MS. GRANT: Hello, good afternoon everyone, 11 good to see you all. My name is Sekita Grant, I'm 12 with the Greenlining Institute. I'm honored and 13 privileged to be able to make comment in support of 14 this great report and recommendations.

15 These recommendations show from our view, 16 very clearly, that the Energy Commission and the 17 state is committed not to just giving lip service to 18 equity, to the interests of marginalized communities 19 that have been historically burdened by the 20 externalities of our energy system. But the Energy 21 Commission is really stepping into a leadership role 22 from our view, really a world leader in the space of 23 climate and clean energy equity. And at a time when 24 we really need to have an agency like this stepping 25 up in that space, so we're very excited to see this. 108

1 Through these recommendations, many of 2 which to the credit of the Energy Commission and 3 staff, really are building upon programs and 4 initiatives that you all already had embedded in the 5 Energy Commission. So I want to acknowledge that.

6 The Energy Commission is really recognizing 7 the importance of creating a clean energy economy 8 that is truly accessible and beneficial to all 9 Californians. So we want to thank you for being 10 very bold and pushing us beyond business as usual.

11

This would not have been possible without 12 the leadership of the Commissioners. Chair 13 Weisenmiller and Commissioner Scott, I want to call 14 out specifically. You all have been on the record 15 for years now in support of these types of efforts. 16 And your leadership in this space is really welcome 17 and appreciated by the stakeholders that are working 18 in this field.

19 To Alana who went above and beyond her 20 mandate to ensure that this project was successful. 21 Countless community meetings, really putting the 22 effort to ensure interagency collaboration, which we 23 can see by the presence of the awesome Air Resources 24 Board team that's here today. And then a lot of 25 conversation with the stakeholders that have been 109

1 engaged in this process. I think that sometimes in 2 such a technical space such as clean energy we 3 forget to lead with our heart as well as our brains. 4 And I think Alana is a great example of why we 5 should not forget to do this.

6 I'm just floored by all the folks who stood 7 up who were involved in this report, so I want to 8 acknowledge all the staff that put a lot of time and 9 effort into these recommendations. We really 10 appreciate it and we look forward to working with 11 staff next year and throughout the implementation 12 stages of this document.

13 So we're very encouraged by this report and 14 just up here to say thank you. And we look forward 15 to supporting you in the implementation part. Thank 16 you.

17 CHAIRMAN WEISENMILLER: Thank you. Thanks18 for being here.

19 Madeline Stano?

20 MS. STANO: Good afternoon, thank you to 21 the Chairman and Commissioners. My name is Madeline 22 Stano and I'm an attorney at the Center on Race, 23 Poverty and the Environment with offices in Oakland 24 and Delano, California. We are a grassroots 25 environmental justice organization and we serve

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residents across Kern County including Arvin,
 Allensworth, Bakersfield, Delano, Lamont, Shafter,
 and Wasco.

4 And I'm happy to be here to offer support 5 for the report and its corresponding 6 recommendations. And I'm very excited, because I 7 work on a lot of pollution issues and got to this issue, because the residents that I work with want 8 9 to be more engaged in these opportunities and are 10 the folks that the report works so hard to identify 11 what those barriers are. I see that in the field 12 and so I'm very excited at the opportunity that this 13 presents.

14 So we commend the Energy Commission and 15 staff on their excellent work to ensure low-income residents and residents in disadvantaged communities 16 17 have meaningful access to renewable and energy 18 efficiency programs. These communities are 19 overwhelmingly, as you know and as the report 20 states, overburdened by the negative health and climate impacts of fossil fuels in the state. And 21 22 as the study identifies, faces barriers to fully 23 participating in the wonderful programs that our 24 state in engaging in.

We urge the Commission to adopt the

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1 Barriers Study and its corresponding

2 recommendations. We look forward to working

3 together on the implementations. Thank you.

4 CHAIRMAN WEISENMILLER: Thank you for being5 here.

6 BlueGreen Alliance?

7 MR. NAKASONE: Good afternoon, 8 Commissioners, Ross Nakasone of BlueGreen Alliance. 9 On behalf of the BlueGreen Alliance and a 10 coalition of community environmental labor and 11 business organizations I wanted to join Madeline and 12 others to thank Alana, Michael and the rest of the 13 gang for their really great work on developing the 14 SB 350 Barriers Study. We certainly appreciate and 15 understand how much work they went through and their 16 meaningful efforts to outreach and significantly, 17 meaningfully hear from community groups.

18 My coalition's focus has been on access for 19 those in disadvantaged and low-income communities to 20 have access to good career-track clean energy jobs. 21 We see the lack of access to quality jobs as a 22 significant barrier and without such access 23 California won't fully realize the potential to serve these low-income households in those 24 25 disadvantaged communities.

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As the report notes develop local workforce participation in clean energy programs is integral in enabling the full range of benefits for lowincome customers. And we see the report as a first step in addressing this lack of access for those in disadvantaged communities to those good jobs.

7 We're heartened to see that the job quality 8 and access component is now a principal 9 recommendation and that jobs tracking will be among 10 the recommended metrics and that's very exciting to 11 see. However, one of our concerns is that many of 12 the recommendations around workforce appear to be 13 limited to the incentive programs that are actually 14 targeted to the low-income communities. The 15 barriers around job access need to be addressed as 16 part of the structure of all energy efficiency 17 programs. That is to say, jobs for disadvantaged 18 communities can come from all clean energy programs, 19 not just those that actually provide direct energy 20 efficiency services to low-income communities. 21 Staff has assured us that their intent is

that these recommendations have a broad applicability, so we're really looking to the Commission, to you all now, to interpret the scope of these recommendations broadly as implementation

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1 moves forward. So we look forward to job quality in 2 access issues as part of the implementation efforts 3 of SB 350 and the workshops Alana had talked about, 4 because many of related proceedings already are 5 ongoing, for example at the CPUC. And so 6 implementation steps need to begin fairly quickly in 7 order to ensure that those programs are developed 8 under those proceedings. You know, that they are 9 consistent with what you all are working on here. 10 So thank you. 11 CHAIRMAN WEISENMILLER: Thank you. 12 IBEW, Bret Barrow? 13 MR. BARROW: Mr. Chairman and -- here we 14 qo, back on. My name is Bret Barrow here, I'm 15 representing the IBEW and NECA Labor Management 16 Cooperative Committee. We represent approximately 17 2,000 contractors and 30,000 electrical workers 18 throughout the state. 19 We're here today in support of the Barriers

20 Report and adoption of the Part A, and appreciate 21 the hard work that's gone into this report, putting 22 it together. And we also appreciate the role we've 23 played both through the workshops and through our 24 filings in this process.

25 I might also like to, rather than repeat CALIFORNIA REPORTING, LLC 22 Napa Street, Rodeo, California 94572 (510) 224-4476

what the BlueGreen Alliance says, support their 1 comments related to workforce. We do appreciate the 2 3 fact that the report calls out a working 4 relationship between the trades in the different 5 areas. Our statewide approved apprenticeship 6 programs are located in consistent presences in 7 these disadvantaged communities. And to the ability 8 to partnership and work for career paths in these areas is certainly one of our top goals as well, so 9 10 I appreciate that as well.

11 Another barrier I wanted to point out here 12 that was addressed in the report, but maybe not as 13 clearly as we'd like is the kind of pervasiveness of 14 poor quality installations in disadvantaged 15 communities. The lack of skill in training 16 standards for installers of these programs is a 17 little bit too common and it often results in energy 18 savings not being realized and the cost of return on 19 a investment being realized in these areas as well. 20 So small businesses and disadvantaged communities 21 are certainly the least able to weather a poor 22 installation and having to do something yet another 23 time, to make those savings realized. 24 I know this is something that is

25 highlighted in the existing Building Energy

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1 Efficiency Action Plan that we'll be taking up later 2 this afternoon. But I just wanted to make sure that 3 that's something as we move forward on 4 implementation in this report, that we take a look 5 at as well. So thank you for your time. 6 CHAIRMAN WEISENMILLER: Thank you. Thanks 7 for being here. 8 Sierra Club? MR. MORENO: Good afternoon Chair and 9 10 Commissioners, Eddie Moreno on behalf of Sierra Club 11 California. First I want to thank CEC staff for 12 taking on this impressive feat. It is a very 13 informative and very interesting report. 14 We feel that the 350 Barriers Report is a 15 beautiful start to an important conversation. We 16 also want to echo some of the comments made by 17 BlueGreen Alliance regarding skilled workforce and access to quality jobs. Again, if we're to meet our 18 19 climate goals we have to fully incorporate these communities, both in terms of the energy benefits 20 21 and non-energy benefits. 22 And just the Sierra club looks forward to 23 working with the CEC on implementing the report next 24 year. Thank you. 25 CHAIRMAN WEISENMILLER: Thank you.

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Is there anyone else in the room who wants
to comment on this report?

3 (No audible response.)

So let's go to the telephone lines. I
think we have at least CALSEIA on the line.

6 MR. KNUTSEN: Yes, good afternoon. This is 7 Kelly from CALSEIA and I just wanted to say good 8 afternoon Chair and Commissioners. I'm Kelly 9 Knutsen of the California Solar Energy Industries 10 Association or CALSEIA and we represent over 400 11 members of the solar industry.

I just wanted to again echo what others have said. Thank you to you and your staff for the hard work in developing this important report and for your continued focus on increasing access to clean energy for low-income individuals in

17 disadvantaged communities.

25

In general, we do support the recommendations that have been highlighted in this report. And I also want to especially thank you for acknowledging and incorporating CALSEIA's comments into the report including some of the suggestions that were in the most recent errata document that was reported last night.

> I do want to note, and I understand there's 117 CALIFORNIA REPORTING, LLC

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1 been some discussions among staff on this, that 2 there should be a small errata to the proposed 3 errata that was just released yesterday. There's a 4 reference to AB 327 in Chapter 4, pages 55 and 56, 5 that now could be interpreted that the issue of net energy metering for residents in disadvantaged 6 7 communities is being addressed by the California 8 Public Utilities Commission under AB 327 for all 9 utilities across the state, including the publicly-10 owned utilities.

11 However, I just want to make sure that the 12 report notes that AB 327 only applies to the large 13 investor owned utilities. It does not apply to the 14 publicly owned utilities who are not required under 15 AB 327 to develop a new net metering successor 16 tariff after hitting their 5 percent requirement. 17 Nor are they required to develop alternative tariffs 18 to ensure that continued growth of distributed 19 generation among residential customers including 20 disadvantaged communities, which is part of the key 21 thing that's being addressed in this Barrier Study. 22 So we do appreciate that the addition of --23 there's a new footnote, reference 98, that some 24 publicly owned utilities have already met their 5 25 percent requirement. But I think that's where the 118

1 confusion can come in that now could be interpreted 2 to mean that -- the sentence that follows -- that 3 its being addressed to the CPUC. And unfortunately, 4 it's not the case that that metering is being 5 addressed by the CPUC under AB 327.

6 As we noted in our comments from last week 7 there's a challenge unfolding across the state, 8 public owned utilities, that they're meeting their 5 9 percent statutory requirement for that energy 10 metering. Unfortunately, many of them have replaced 11 or plan to replace it with tariffs that undervalue 12 the benefits of clean local generation, which has 13 made them uneconomical to local solar customers. 14 And of course then the CPUC has no jurisdiction over 15 those changes.

16 So I just wanted to state we hope this 17 report will explicitly address that and that AB 327 18 only applies to the large investor owned utilities, 19 not the publicly owned utilities.

Thank you again for developing this report and for considering this final suggested edit. And we will look forward to working with you going forward.

24 CHAIRMAN WEISENMILLER: Okay. Anyone else 25 on the line?

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1 (No audible response.) 2 CHAIRMAN WEISENMILLER: Okay, then lets transition from public comment to conversation among 3 the Commissioners. 4 5 Oh, one more? 6 Hello? 7 CHAIRMAN WEISENMILLER: Hello, please go 8 forward. Please introduce yourself. 9 MR. JATKAR: Hi, this is Shrayas Jatkar 10 with Coalition for Clean Air. Can you hear me now? 11 CHAIRMAN WEISENMILLER: Yes. Yes, we can. 12 MR. JATKAR: Okay, great. So yes, Shrayas 13 Jatkar, Coalition for Clean Air. I want to start by 14 thanking staff for a great public process in putting 15 together the report. We got a chance to participate 16 in a couple of the workshops earlier this year. I 17 also want to acknowledge and thank staff for the close coordination with Air Resources Board and 18 19 their study on Barriers to Low-Carbon 20 Transportation. 21 And we're in support of the report and the 22 recommendations and want to just second the comments 23 made by BlueGreen Alliance and Greenlining 24 Institute. And just acknowledge again that there's 25 a great need to make sure that the quality of the 120

1 work that's being provided is also addressed in 2 terms of a structural barrier to increase 3 participation of low-income consumers in clean 4 energy programs.

5 And also, just highlight again the point 6 made that those economic development-related 7 recommendations should apply to clean energy 8 programs at large, and not just those that are 9 targeted at low-income or disadvantaged communities. 10 And with that, we look forward to the next steps and 11 being involved in implementation. Thank you.

12 CHAIRMAN WEISENMILLER: Thank you.

13 Anyone else on the line?

MS. MATHEWS: There may not be anyone else on the line but Chair, if I can just have a brief moment to address the comments by CALSEIA?

In my presentation I did include there was a highlight for program integration and I mentioned that section in Section 4, Chapter 4, page 58, how we did add in language to clarify that that particular legislation applied only to IOU residential customers.
CHAIRMAN WEISENMILLER: Thank you.

24 So anyone else on the line?

25 (No audible response.)

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1 CHAIRMAN WEISENMILLER: Again, let's
2 transition over to Commissioner conversation at this
3 point. Go ahead.

4 COMMISSIONER SCOTT: Sure. I would love to 5 start. I really want to say thank you so much to 6 Alana and to Mike for their great leadership on this 7 effort. We all recognize that coordinating this has 8 been quite the undertaking and they have both done 9 just a terrific job.

10 I'm going to give Alana a heads up that 11 when I get a little closer to the end of my remarks, 12 which I have about six bullet points here, I want 13 you to put those slides up again that had all of the 14 partners that we want to acknowledge. Just so folks 15 have a chance to see those and really get a good 16 look, because it really did take a village to put 17 this together. And we wouldn't have been able to do 18 it without the enthusiastic and engaged 19 participation from all of the stakeholders who 20 worked together with us on this.

As you all know, energy touches all Californians and so it's really important that as the clean green economy grows here in California, we're taking the necessary steps to ensure that lowincome communities and really that everyone has

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1 access to those opportunities.

2 I think our staff has done a great job at 3 reaching out and engaging folks on this report. And as the Public Member, of course I really appreciate 4 5 the effort that was put into coordinating with our community partners. I mean, we did a fantastic job 6 7 and as you can see here, here are the first set, I 8 think there were three slides of the community partners and folks who really worked with us to make 9 10 this the robust and terrific report that it is. 11 We were able to visit the various 12 communities. They invited us into their communities 13 to have meetings and to really hear their concerns. 14 And the barriers that they are facing and the 15 challenges. We had a chance to do these meetings in 16 various languages, and I think all of this really 17 helped contribute to the robustness of our report. 18 Here at the Energy Commission one of our 19 commenters mentioned it, I think Sekita from 20 Greenlining, we've taken a lot of steps to increase 21 the diversity of the folks who are participating in 22 our programs including the diversity resolution that 23 we all passed together in fall of 2015. 24 And SB 350 and the call for this report,

25 really brings into focus how important it is that we 123 CALIFORNIA REPORTING. LLC

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as a state work together to make sure that all
 Californians are aware, especially low-income
 Californians, and able to benefit from the state's
 suite of programs and opportunities.

5 So I really look forward to continuing the 6 conversations that have been started during the 7 development of the report. It was a lot of work, it 8 was hard work, it was good work, but it's just the 9 beginning of the work that we need to carry forward. 10 And I really look forward to working with all of our 11 partners on implementing this in the New Year.

12I did just want to just take a chance for13us to -- Alana had called out the names of a bunch14of staff who worked on the report. If I could get15you all to stand up one more time, I really do want16to take a minute to -- go ahead, don't be shy --17MS. MATHEWS: That would include Galen.18COMMISSIONER SCOTT: -- to acknowledge all

19 of the fantastic work that you did.

20 Rhetta, I see you're still sitting. 21 Eunice, you're still sitting, and Alana herself, you 22 guys did a fantastic job. And I really want to 23 thank you for the time and energy and effort that 24 you put into our report. So I just wanted to make 25 sure you got that little bit of extra

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acknowledgement. And also again, the partners that
 you saw on our slides.

3 (Applause.)

4 Great job guys.

5 Let me turn it to my fellow Commissioners6 to see if they have remarks.

7 COMMISSIONER MCALLISTER: So I think I want 8 to thank Mike and Alana, just I'll pile on there. 9 I'm sure there have been a lot of kudos already, 10 many more to come but they're all very well 11 deserved.

12 And, you know, this is a broad set of 13 issues that is difficult. I mean, disadvantaged 14 communities are hard to access for many, many 15 different reasons. You can read the report. It's 16 great to see -- I actually have some history -- long 17 ago, early on in my career, of doing some environmental justice work. And writing for the 18 19 Race, Poverty, Environment Newsletter way back in 20 the day. And doing some work at LBL for the 21 Department of Health and Human Development looking 22 at Section 8 housing.

And just it is hard to reach for lots of
different reasons. These are economically
difficult, these are people who have a lot of

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1 demands on them and a lot of difficulties and energy 2 is one of them. But really I think the highlight 3 that you can sort of infer throughout the report, is 4 that these are really people, human problems.

5 And we have to approach, you know, we use a 6 lot of terms: disadvantaged communities, low-income 7 constituents. But these are people who have to have 8 relationships in order to make decisions and have 9 access to programs, and so it really comes down to 10 that local level. So implementation is really where 11 a lot of this is at and so I think that this report 12 lays the groundwork for going forward on that 13 implementation. But the rubber really hits the road 14 there.

15 And just at a high level, we have not done 16 our job if we transition to a great clean energy 17 economy and we leave 20, 30, or 40 percent of the population behind. It's just that is not success 18 19 and so I think that's a more and more urgent, and I 20 think recognized across the board these days. And 21 it's great and so this report obviously is a 22 building block for solving that challenge for 23 providing access across the board.

I certainly endorse all recommendations,and in particular moving forward this will be

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1 something you've all heard from me before, but using 2 all the information we can get to make better 3 decisions. And yet target our resources to where 4 they can be best utilized and so really high on the 5 data recommendations. Certainly the taskforce is 6 very needed, but I just wanted to highlight those.

7 And the workforce issues are right in the 8 center of this, so I really appreciate all the 9 comments on workforce. And in measures it's about 10 having people be in these neighborhoods that are 11 from these neighborhoods, so that to get to that 12 human decision-making process I'm much more 13 comfortable procuring something from somebody who 14 maybe looks like me. But really it's about 15 professionalism and quality as well, and so how to 16 do that? It's contextual, it's across the state, 17 big state, lots of effort.

And so in any case I want to just thank again the staff and everybody who's -- I mean this takes a city actually, not just a village. And I'm looking forward to working with all the stakeholders in all of these conversations that are going to spin out on different policy approaches that will come undoubtedly from this report.

25 So thanks, I'm obviously very supportive. 127 CALIFORNIA REPORTING. LLC

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1 COMMISSIONER DOUGLAS: So I'll just briefly 2 add on that it's really been enjoyable to work on 3 this. And just watch this report as it's developed. It's unusual for -- well there are many cross-4 5 cutting issues we deal with, but this is one that really all the Commissioners had a lot of interest 6 7 in and desire to participate and support. And so we 8 found ways to make that work and I know we all went 9 and participated, for example, in one of the 10 community meetings. And just had the opportunity to 11 do things like that.

12 It's been great seeing the report 13 developed. It's been great to see the Energy 14 Commission staff team kind of really come together 15 and see people really step up and pitch in and do 16 what needed to be done to get the work done on time. 17 And we definitely all appreciate the input of the 18 members of the public who came to some of the 19 community workshops, and the advocates who were 20 really essential and very helpful in helping us get 21 to where we are with this report. 22 So anyway, I'm obviously in strong support 23 as well.

24 COMMISSIONER HOCHSCHILD: Well, thank you25 to all the staff and to Alana. And also in

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particular to Esteban and Emilio on my team for all
 your hard work on this.

3 I went to two of the community sessions in 4 Los Angeles and in Oakland on this, in multiple 5 languages, Mandarin and some others. And just found 6 it to be enormously fruitful and a creative 7 discussion. I just want to say we're obviously in a 8 changed political environment at the national level. But I think the message you'll hear not just from 9 10 all of us here at the Energy Commission, but the 11 Governor and the Legislature and our colleagues at 12 the other agencies as well is that we in California 13 are putting our foot on the accelerator and not the 14 brake as we press to meet our clean energy goals.

15 And we're now at 27 percent renewables for 16 the state up from 12 percent in 2008. We're making 17 headway quickly. I'm actually quite optimistic 18 about our opportunity for progress in particular in 19 this arena, because I think the political will has actually never been stronger to do something 20 21 meaningful for disadvantaged communities to do 22 something meaningful for disadvantaged communities. To deal with some of the justice issues associated 23 24 with energy generation and to really make an impact. 25 And this report, I think lays out a bunch

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of really promising avenues for that, so looking
 forward to what we can all do together in the year
 ahead.

4 CHAIRMAN WEISENMILLER: Thank you. Now, 5 again I think first I should clarify, in terms of 6 probably the right word is "drafted" as opposed to 7 "volunteered," but having said that we certainly 8 appreciate the Legislature's vote of confidence in 9 this. Giving us the assignment and certainly 10 appreciate in fact, some of the staff, Alana in 11 particular. Some of the staff volunteered and 12 others sort of stepped forward to sort of deal with 13 the cards we were dealt to help us get through this.

14 And we took an unusual approach for us. Ι 15 mean, certainly as we go forward working through 16 some of the implementation we will continue to 17 struggle in that we operate, in some respects, in 18 silos. You know, there's an energy efficiency 19 silo, a renewable silo. And we basically did this 20 more as a sitting body, which also was a way we 21 could actually communicate among ourselves without 22 getting into Bagley-Keene issues. But it certainly 23 made for a much more public process, which again was 24 qood.

> I think certainly the basic policy, I think 130 CALIFORNIA REPORTING. LLC

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1 the Governor has been fairly clear that while we 2 respect the election outcome, that as a matter of 3 policy California will stay true to human rights. 4 And certainly one of the human rights is access to 5 energy services in a clean reliable low-cost 6 fashion.

7 So I think this is a step to do that. It 8 certainly catalyzed a conversation among us, not 9 only those of us at the dais, but with the other 10 agencies. To see how we could better make sure that 11 all Californians benefit from the changes that are 12 going on in preferred technologies.

And frankly, some of these changes are good and some of it will make it will make it more complicated. On the one hand, solar and wind are now really a best buy, energy efficiency LEDs are just remarkable how cost effective they are now, it's just a shame not everyone's using them.

But at the same time as we restructure the utilities I'm struck by, you know, PG&E did their filing on how they're doing on contracting. And PG&E's contracting has -- Sue Madison's (phonetic) also, I just didn't see that -- has a very strong component of small business and diversity contracting.

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1 Now, at the same time as we go through the 2 changes in industry structure, obviously a lot of 3 the preferred technology companies are scrambling 4 fast, innovative, but not necessarily doing that 5 well on small business contracts. Certainly not necessarily doing that well on labor conditions, and 6 7 so we need to make sure that we figure out ways as 8 we restructure that we're marching forward.

9 And similarly, it's really important to 10 deal with some of the quality control issues. I 11 remember just after President Picker got to the PUC 12 he told me that Commissioner Simon's uncle, an 13 elderly black gentleman, had put a solar system on 14 his roof and it wasn't working was the bottom line.

15 And Michael was asking what I was going to 16 do about it. Well, I thought about it and said, 17 "Well, that has to be the CSI Program and not the New Solar Homes Program." But again, I think we all 18 19 need to make sure that as we're putting public money 20 into getting stuff out, that it works. And so again that's the quality control consumer protection part 21 22 is particularly important going forward too.

23 So again, in some respects it's a big step 24 for us. It's a small step in this area, but it's an 25 important that I hope to become a greater part of 132

1 the dialogue in the Legislature this year. So
2 again, thanking the staff for their hard and
3 thanking everyone for their participation in this
4 process. And again, as I said, we're starting but
5 we're certainly not there yet.

6 COMMISSIONER SCOTT: Okay. So I would like 7 to move Item 8. I move that we approve the proposed 8 report, the changes set forth in the errata 9 document, and the final changes discussed that Alana 10 highlighted for us during today's Business Meeting. 11 CHAIRMAN WEISENMILLER: All those in favor?

12 (Ayes.)

13 CHAIRMAN WEISENMILLER: This item passes 514 0. And congratulations, staff. Thanks again,
15 thanks to everyone for their participation.

16 Let's go on to Item 15.

17 MR. FAUBLE: Good afternoon Chair and 18 Commissioners. My name is Brian Fauble with the 19 Fuels and Transportation Division, Zero-Emission 20 Vehicle and Infrastructure Office. I would like to 21 start with a short presentation on California's 22 Direct Current or DC fast charging station network. 23 In November of 2013, the CEC released 24 solicitation PON-13-606, as indicated on the map, 25 for EV Infrastructure projects that would install 133

charging stations at multiple types of sites;
 including destinations, corridors, workplaces, and
 residential units without garages.

The awarded projects included 75 DC Fast chargers at 65 sites, which are shown as the blue dots.

7 The red dots represent existing and planned 8 publically available DC fast chargers prior to the 9 2013 solicitation. Included in these red dots are 10 37 fast chargers at 41 sites that the CEC funded 11 prior to this 2013 solicitation. Next slide, 12 please?

In 2015 the CEC released solicitation GFO-14 15-601, for projects to install DC fast charging 15 stations on the primary north-south corridors that 16 would allow travel from the Oregon to Mexican 17 borders.

18 The solicitation added a planned 61 DC fast 19 chargers and 42 Level 2 charging stations at 41 20 sites, again shown as the blue dots. The red dots 21 now represent the previously existing chargers and 22 planned chargers that were awarded in 2013 and previous. Next slide, please? 23 24 Our most recent EV infrastructure 25 solicitation again concentrated on DC Fast Charging

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corridors, this time concentrating on interregional
 travel. The solicitation corridors extended to
 California's northwestern and eastern borders, as
 well as connected major travel routes.

5 The solicitation awards will add 130 DC
6 Fast Chargers and 87 Level 2 charging stations at 79
7 sites, again represented by the blue dots.

8 With these new corridor projects, EV 9 drivers can confidently travel from the Oregon 10 border to Mexico via I-5, US-101, or Highway 99. 11 They also can travel to Nevada or Arizona via I-80, 12 Highway 50, I-15, or I-10. Finally, this map shows 13 only the DC fast charger sites that were awarded by 14 the CEC.

15 Today staff is requesting approval for two 16 proposed grant agreements that will install DC Fast 17 Charging station for electric vehicles along 15 major interregional travel corridors in California. 18 19 Each site will include at least one DC Fast Charging 20 station with both the SAE and CHAdeMO connectors, 21 one Level 2 charging station and one stub-out for 22 future expansion.

These electric vehicle charging stations will allow electric vehicle drivers to travel the entire length of each corridor with an increased

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1 confidence in their vehicle's range and re-charging
2 capabilities.

3 Item 15a is proposed grant agreement ARV-4 16-005 with ChargePoint, Inc. for a \$9,270,141 to 5 install the stations along 15 specific California 6 Corridors. This agreement also includes \$4,242,465 7 in match funds.

8 Item 15b is proposed grant agreement ARV-9 16-006 with EV Connect, Inc. for a \$2,151,622 grant 10 to install the stations along three specific 11 California Corridors. This agreement also includes 12 \$628,685 in match funds.

If approved, the Energy Commission will provide \$11,421,763 in funding from the Alternative and Renewable Fuel and Vehicle Technology Program. These agreements will include a total of \$4,871,150 in match funding, and plan to be open to the public by early to mid-2018.

In summary, staff is requesting the Commission's support and approval of the proposed grant agreements listed under Item 15 on the agenda. Thank you for your time and consideration for these projects. I'm available for any questions, and we

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also have staff from ChargePoint available for

1 comment.

2 CHAIRMAN WEISENMILLER: Okay. Let's start 3 with ChargePoint of EV Connect, the Applicants, if 4 you want to say a few words. And then we'll go for 5 public comment.

6 MR. SCHOTT: Good afternoon, Chair and 7 Commissioners, John Schott from ChargePoint. And on 8 behalf of all of ChargePoint, and my colleagues here 9 today and myself, I want to extend a sincere thanks 10 to the great work that you've been doing to support 11 and develop the zero-emission vehicle infrastructure 12 throughout California. Specifically, through the 13 Alternative Renewable Fuel Vehicle Technology 14 Program, and the grant funding opportunities that 15 have been created from those investment plans.

16 So those investment plans, the grant funding opportunities, the application process, the 17 review and awarding process, we think are a model 18 19 for other states to engage with EV charging 20 infrastructure companies such as ChargePoint and EV 21 Connect. They encourage competition, innovation, 22 customer choice and technology and business models. 23 And we applaud the Commission for directing funding 24 opportunities to underpenetrated markets in areas of greatest need including this effort around DC Fast 25 137

1 Charging for the corridors.

2 ChargePoint would also like to thank the 3 Commission for recognizing the value of public and private partnerships, which have always been a 4 5 cornerstone of ChargePoint's proposals and the projects that we implement. We look forward to 6 7 continuing to work with the excellent staff and 8 Commissioners at the CEC to deploy infrastructure to 9 support California's zero-emission vehicle goal of 1 10 million vehicles on the road by 2020. And we want 11 to assure staff and Commissioners that ChargePoint 12 is ready and has the resources to deploy to this 13 effort to get this project done in an efficient and 14 quick manner. 15 So I thank you for the opportunity. 16 CHAIRMAN WEISENMILLER: Thank you. Anyone 17 else in the room with comments on this? Anyone on 18 the phone? 19

(No audible response.)

20 So let's transition to the Okav. 21 Commissioners. Commissioner Scott?

22 COMMISSIONER SCOTT: I don't have anything 23 to add really to Brian's fantastic presentation. I 24 might have tried to give you some of the context for 25 what the quarters are going to look like, but you 138

saw the maps. You'll be able to drive from Mexico
 to Canada, it's pretty exciting.

3 COMMISSIONER HOCHSCHILD: Could I ask a
4 question?

5 COMMISSIONER SCOTT: Of course. 6 COMMISSIONER HOCHSCHILD: Yeah, just what 7 is the cost to recharge a vehicle on average with 8 one of these ChargePoint -- I mean, relative to gas. 9 My understanding is its roughly about half the price 10 per gallon? Is that ballpark right or what, just to 11 some sense of what the price is to recharge is, 12 typically?

13 MR. FAUBLE: They do vary regionally and 14 who the owner is specifically, ballpark off the top 15 of my head I don't have that number. It is always 16 relative to what gas prices are also on what 17 percentage it is to fill up. But off the top of my 18 head, I'm sorry I don't have that number. And I 19 don't want to give you a false number. 20 MR. MOORE: It's a (indiscernible).

21 COMMISSIONER HOCHSCHILD: Thank you.
22 CHAIRMAN WEISENMILLER: Come up to the
23 microphone and identify yourself for the court
24 reporter. And then answer the question.
25 MR. MOORE: I'd be happy to, good

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1 afternoon. Thank you. Rory Moore also with 2 ChargePoint and I would tell that it really varies 3 from property to property depending on who owns and 4 operates the charging equipment itself. You might 5 expect that a DC Fast Charging session typical with 6 today's vehicles would range between \$3 to \$8 for a 7 full battery. That would give you approximately 80 8 to 100 miles of range. A Level 2 charging session 9 just for consideration might be half of that, so 10 anywhere from \$1 to \$3. 11 COMMISSIONER HOCHSCHILD: That's very 12 helpful. Thank you. 13 COMMISSIONER SCOTT: Any other questions? 14 Okay. I will move approval of Item 15. 15 COMMISSIONER DOUGLAS: Second. 16 CHAIRMAN WEISENMILLER: All those in favor? 17 (Ayes.) 18 CHAIRMAN WEISENMILLER: Item 15 passes 5-0. 19 Thank you. 20 Let's go on to Item 16. 21 MS. PALMA: Good morning Chair and 22 Commissioners, My name is Silvia Palma from the 23 Energy Research and Development Division. I'm here 24 to request your approval of three grant Agreements 25 recommended for funding under Grant Funding

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Opportunity GFO-16-301. The purpose of this solicitation was to fund applied research and development projects that develop technologies, tools, and strategies to enable higher penetrations of renewable energy; and that reduce technological and economic barriers to small hydropower, geothermal, and wind power generation.

8 This solicitation had three funding 9 opportunities. The first group was expanding 10 California's use of in-conduit hydrokinetic power. 11 The second group, improving the cost-effectiveness 12 and operational flexibility of geothermal energy 13 production and the third group is upgrading 14 California's aging wind turbines.

15 The agreements I am presenting today are 16 only for projects that were recommended for funding 17 under the geothermal group or Group 2 of this 18 solicitation. This group was focused on developing 19 new and advanced technologies, strategies, and tools 20 that improve the cost-effectiveness and operational 21 flexibility of geothermal energy production, 22 extending the operating life of existing and new 23 geothermal energy generation facilities. 24 The projects recommended for funding under

25 Group 1, hydropower, and Group 3, wind, are expected 141

1 to be presented at a future business meeting.

2 The first recommended project is with SRI 3 INTERNATIONAL. This is a lab-scale project that 4 aims to develop a new low-cost process for the 5 recovery of lithium from geothermal brines based on first, a new generation of high-capacity selective 6 solid sorbents for the extraction of lithium; and 7 8 second, a new eco-friendly sorbent regeneration 9 process for the direct formation of high-purity 10 lithium carbonate.

11 Compared to other methods for lithium 12 recovery from brines, this process is expected to 13 lower the cost of lithium production through online 14 separation with higher recovery efficiency that uses 15 a smaller volume of sorbents and reduces processing 16 time. If successful, this project will provide 17 opportunity to geothermal operators particularly in 18 the Salton Sea region to recover valuable co-19 products such as lithium, thus helping to offset the 20 high cost of construction and operation.

The next two agreements are with the Lawrence Berkeley National Laboratory or LBNL. The first agreement with LBNL is a field demonstration project at The Geysers that will evaluate the performance and advantages of using a micro-

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earthquake imaging system in producing geothermal reservoirs. This earthquake imaging system uses a dense network of seismic stations and automated processing to perform high-resolution imaging of fluid movement.

6 This advancement is enabled by the recent 7 development of low-cost, portable seismic recorders 8 that allow for a high-density network of sensors. 9 The field demonstration at The Geysers will provide 10 an opportunity to test and refine the dense network 11 design and fast-turnaround processing and imaging 12 code base and workflows.

13 The expected benefit includes drilling more 14 productive wells, avoiding drilling hazards, and 15 optimizing production. This agreement will provide 16 valuable information about fluid movements during 17 injection and production processes to ensure 18 effective and low-cost operation and development of 19 geothermal resources.

The second agreement with LBNL is also a lab-scale project that aims to provide modeling tools that can be used by geothermal operators to gain a better knowledge and understanding of the impacts of flexible-mode production on the reservoir-wellbore system of both vapor dominated

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and liquid dominated geothermal reservoirs, which 1 2 expands current modeling to a wide range of 3 geothermal resources. Such knowledge will allow 4 development of power plant and control technology to 5 allow geothermal power plants to operate in different variable modes, and to be both a base-load 6 7 and flexible renewable resource. This will help to 8 stabilize the grid and mitigate problems caused by 9 intermittent renewables.

I am requesting your approval for these agreements, and I am ready to answer the questions you may have. Thank you.

13 CHAIRMAN WEISENMILLER: Thank you.
14 First, does anyone have any questions or
15 comments, anyone in the room or on the line?
16 (No audible response.)

17 Okay, then let's transition to the

18 Commissioners.

19 As the Lead on R&D I've sort of reviewed 20 these. I think certainly we were trying to figure out how to really help geothermal move forward. 21 22 Obviously it has some problems, first in terms of 23 cost and second in terms of operational flexibility. 24 And so hopefully these two contracts will -- there's 25 been a number of approaches trying to see if we can 144

convert lithium up from a problem for Imperial
 Valley resources to another revenue source.

And also if we can figure out, understanding again the sort of flexibility base load. It's interesting, originally in the middle '80s, Unocal was pretty convinced they do cycling at The Geysers and tried to negotiate a contract with PG&E at that time -- unsuccessful negotiation.

9 But when Calpine tried to do it they really 10 found adverse impacts on the field in the late '90s, 11 so it would be good to get a better understanding of 12 underlying phenomena there. So I think these are 13 good investments. Hopefully they can help make 14 geothermal more competitive.

15 Anyone else?

16 COMMISSIONER DOUGLAS: I'll just comment 17 that I'm glad to see these investments as well. And 18 that I'm looking forward to that work going forward 19 and so I'll move approval of this item.

20 COMMISSIONER HOCHSCHILD: Yeah, and I would 21 just add in order to compliment this we're going out 22 with our new GRDA solicitation. And I've asked to 23 staff to notify all the relevant members of the 24 Legislature that that solicitation has gone out, so 25 it's another 4.7 million. But the application is 145

1 due January 20th, which will help I think advance 2 geothermal even more.

3 So did you get a second, do you need a 4 second? I'll second.

5 CHAIRMAN WEISENMILLER: All those in favor? 6 (Ayes.)

7 CHAIRMAN WEISENMILLER: This passes 5-0. 8 Thank you.

9 Let's go on to Item 17, 2016 Existing
10 Buildings Energy Efficiency Action Plan Update,
11 Martha.

12 In September 2015, the Energy MS. BROOK: 13 Commission adopted the Existing Buildings Energy 14 Efficiency Action Plan. Soon after, Senate Bill 350 15 was signed into law. The Clean Energy and Pollution 16 Reduction Act of 2015 calls for a doubling of 17 statewide energy efficiency savings by 2030, with 18 the progress to be tracked and reported by the 19 Energy Commission.

20 SB 350 also directs the Energy Commission 21 to update the Existing Buildings Energy Efficiency 22 Action Plan on or before January 1st, 2017 and every 23 three years thereafter, with the intent that the 24 Plan articulate the energy efficiency strategies 25 needed to achieve the doubling of statewide energy 146

1 savings.

2 The 2016 Existing Buildings Energy 3 Efficiency Action Plan before you now for approval 4 is the update required by SB 350. Since the 5 comprehensive Plan was adopted just one year ago, 6 this update does not overhaul or replace it. 7 Instead, the 2016 Plan Update summarizes actions 8 taken over the last year to implement the 2015 9 Action Plan. The 2016 Plan Update also summarizes 10 the relevant legislative changes that have occurred 11 after the 2015 Plan was adopted, and it includes 12 changes to some of the strategies to better meet the 13 original Plan's objectives.

14 Commission staff invited input from 15 stakeholders in the summer of 2016, and incorporated 16 this information into a draft of the 2016 Plan 17 Update. A public workshop was held in October to 18 present the draft update and to host public 19 discussions on the Update contents. The document 20 before you is the result of this staff work and 21 public engagement, and I am here to answer any 22 questions that you have.

23 CHAIRMAN WEISENMILLER: Thank you. Let's 24 start with public comment. IBEW, all right? Do you 25 want to come up again?

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MR. BARROW: Mr. Chair and Commissioners,
 Brett Barrow, IBEW-NEC LMCC again.

3 I'd like to just briefly thank the 4 Commission and rise in support of the Energy 5 Efficiency Action Plan. I would also like to thank staff for working with us. And in taking some of 6 our input, specifically calling out in Section 3 the 7 8 need for incorporating contractor and workforce 9 standards into the Energy Efficiency Program 10 requirements. We really look forward to working with the Commission in the future on workforce 11 12 standards as well compliance issues that would 13 undermine the state's ability to realize its energy 14 efficiency goals. So thank you. 15 CHAIRMAN WEISENMILLER: Thank you. 16 Anyone else in the room or on the line? 17 (No audible response.) 18 Let's transition to the Commissioners. 19 Commissioner McAllister? 20 MR. MCALLISTER: All right, this is a great 21 meeting for energy efficiency. We're doing a lot of 22 good stuff, so I'm not going to spend too long on 23 this one. Yet we talked about the original 24 Efficiency Plan not that long ago, September of 2015 25 as Martha said, so it's been a little over a year.

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And it's a living document and the stakeholders
 remain for the most part extremely engaged. I want
 to really thank Brett and all your colleagues.

I think we have moved over into a more 4 5 integral workforce, integral incorporation into principles that really aligned well with you on 6 workforce and quality. As the marketplace clearly 7 8 needs to receive the signal that you get what you 9 pay for and that quality matters and it's actually 10 the cheapest long-term strategy. And then work 11 through all the challenges to try to make sure that 12 that is reflected in enforcement and through the 13 environment of each individual project. And, you 14 know, the workforce itself.

So since the original adoption of the Action Plan, SB 350 came through and it sort of became more of an explicit this is the document for the doubling in SB 350. And so a lot of the changes really reflect that in making it more integral, making that goal more integral to the strategies in the Action Plan.

But really I was heartened when we were doing this. Martha really led it and I want to thank you, Martha, and all the staff on the Action Plan. A lot of hard work, you know, major

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1 strategies in the Action Plan where the AB 802
2 Benchmarking Program made lots of progress, we're in
3 the middle of that rulemaking and it's looking
4 really good. And Benchmarking Disclosure, the local
5 government effort that we'll hear about as well in s
6 little bit, again a really core strategy.

7 So we're making progress on a lot of fronts 8 and it's really good news, I think. And the Action 9 Plan is a document that stakeholders have really 10 engaged with in a way that I've rarely seen and it's 11 very much of an active conversation. And I think 12 staff is participating in a way that keeps it alive 13 and makes it thrive, so that's what we need going 14 forward. So I want to express my strong support.

15 So I'll just move or -- okay, great. 16 CHAIRMAN WEISENMILLER: Yeah, thanks both 17 of you for moving this along. And again, connect it 18 again into our 350-802 assignments. So let's go on 19 to Item -- so again thank you --20 COMMISSIONER MCALLISTER: I think we have 21 to adopt the --22 CHAIRMAN WEISENMILLER: No, I was going to

CHAIRMAN WEISENMILLER: No, I was going to asy I think I made that mistake once, but now it says presentation.

25

MS. VACCARO: Actually, this one I think CALIFORNIA REPORTING, LLC

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1 requires Commissioners. 2 CHAIRMAN WEISENMILLER: It does again, 3 okay. 4 COMMISSIONER MCALLISTER: Yeah, we're 5 supposed to --6 CHAIRMAN WEISENMILLER: Yeah, well that's 7 twice in one day. 8 MS. VACCARO: We need a motion. 9 CHAIRMAN WEISENMILLER: Okay, a motion? COMMISSIONER MCALLISTER: So I'll move Item 10 11 17. 12 COMMISSIONER DOUGLAS: Second. 13 CHAIRMAN WEISENMILLER: All those in favor? 14 (Ayes.) 15 CHAIRMAN WEISENMILLER: This has been 16 approved 5-0. 17 Let's go on to Item 18, Michael? 18 MR. SOKOL: Good morning Chair and 19 Commissioners. I'm Michael Sokol, the Special 20 Coordinator for implementation of Senate Bill 350, 21 the Clean Energy and Pollution Reduction Act of 22 2015. 23 Today I'll provide a quick status update on 24 the Energy Commission's SB 350-related efforts. And then we'll hear a little more detail about two 25 151

1 specific activities that support implementation.

2 Earlier today, the Commission voted to 3 adopt two items in support of SB 350, the Existing 4 Building Energy Efficiency Action Plan Update, which 5 you just heard and the Low-Income Barriers Study, These items represent the culmination of 6 Part A. staff efforts over the past year and a lot of time 7 8 and hard work has gone into completing those tasks. 9 So I just want to take a second to recognize those 10 efforts in addition to the recognition that was 11 already provided.

12 Since the last month's update the Energy 13 Commission staff continue to coordinate with other 14 agencies and stakeholder groups on a variety of 15 topics covered in SB 350. To ensure consistency and alignment of programs wherever possible, 16 17 coordination efforts have included interagency and 18 stakeholder discussions on the target-setting 19 efforts for doubling energy efficiency by 2030, 20 integrated resource planning guidance for the 21 state's largest utilities, and Title 20 data 22 collection effort to support SB 350 among other 23 topics. 24 Several workshops and meetings have been 25 held over the last month in support of these efforts

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1 including on November 16th a Lead Commissioner 2 workshop on the Title 20 data collection regulation 3 updates, on November 21st an interagency confab on 4 energy efficiency target setting with the California 5 Public Utilities Commission, on December 7th a vehicle grid integration communication standard 6 7 workshop to support transportation electrification. 8 And yesterday, on December 13th, a Lead Commissioner 9 workshop on renewables and energy storage to support 10 Integrated Resource Planning.

11 Next, you'll hear brief updates on a couple 12 of activities that support SB 350 implementation. 13 The first item will be discussing the local 14 government challenge administered by the Energy 15 Efficiency Division. This challenge supports the 16 goal of doubling California's energy efficiency by 17 2030, by fostering innovative approaches to enable 18 energy efficiency in climate leadership at the local 19 level. This item will be discussed by Anne Fisher 20 from Efficiency Division.

21 And then the second item is an update on 22 the Energy Commission's efforts to develop 23 guidelines for California's largest publicly owned 24 utilities to submit integrated resource plans by 25 January 29. An update on this effort will be

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1 provided by Sylvia Bender from the Energy

2 Assessments Division.

5

3 And now I'll hand off to Anne, to discuss4 the local government challenge.

MS. FISHER: Hi, thank you.

6 Good afternoon Commissioners and Chair, I'm 7 Anne Fisher with the Efficiency Division and I'm 8 here to provide information about a new program 9 called the Local Government Challenge that supports 10 the targets in SB 350.

11 In the Existing Buildings Energy Efficiency 12 Action Plan adopted in today's meeting, the Local 13 Government Challenge Grant Program is described 14 under Goal 1: Increased Government Leadership In 15 Energy Efficiency, specifically Strategy 1.7: Local 16 Government Leadership, which calls for the 17 engagement and recruitment of local governments to 18 demonstrate leadership in energy efficiency through 19 various programs, activities, and mechanisms. 20 Action Plan strategies, such as the 21 Challenge, supports the targets of SB 350 and

22 doubling of energy efficiency in existing buildings.23 The Challenge will help local governments facilitate

24 more energy efficiency upgrades, demonstrate

25 leadership by accomplishing deep energy retrofits in 154

1 government buildings, and become the resource for 2 businesses, home owners, and property managers, and 3 other decision makers looking for energy efficiency 4 solutions.

5 As stated in the Action Plan, the Local 6 Government Challenge leverages the relationships 7 that local governments share with their constituents 8 to promote innovative local agency policies and 9 programs that advance the state's climate, energy, 10 and code adherence goals.

11 The Challenge provides local governments 12 with opportunities to plan, gap-fill existing 13 efforts, and innovate. Grant awards will be given 14 to promote performance-based efficiency improvements 15 with the goal of grant awards being tied to actual 16 energy savings achieved. Eligible project areas 17 would include, but not be limited to, comprehensive 18 efficiency upgrades for public buildings, early 19 implementation of nonresidential benchmarking and 20 disclosure programs, innovation in building 21 permitting and code enforcement procedures, and 22 data-driven community-wide energy programming. 23 The Local Government Challenge is funded by 24 the American Recovery and Reinvestment Act, a total 25 of \$10.2 million will be awarded in Challenge grants 155

1 in June 2017.

2

3 Any California city, county, special 4 district or local government consortium is eligible 5 to participate in the Challenge program. Selection criteria is structured to allow smaller and less 6 7 affluent jurisdictions the ability to participate 8 with a dedicated share of the funding. And larger 9 local governments would have their proposals 10 considered on the basis of innovation and a 11 commitment to share all program implementation tools 12 and infrastructure. Projects that are identified in 13 disadvantaged communities using CalEnviroScreen will 14 receive incentive points as part of the scoring. 15 The Small Government Leadership Challenge 16 Program dedicates \$3 million of grant funding to 17 local governments with populations less than 150,000 18 people. The minimum award is \$250,000, and the 19 maximum is \$1 million. These small grants are to help local governments with planning activities, 20 21 such as Climate Action plans, or to plan or 22 implement the strategies within a Climate Action 23 Plan. Other planning activities will be considered. 24 The Energy Innovation Challenge Program 25 dedicates \$7.2 million of grant funding to all other 156

local governments statewide, as well as local 1 2 government consortium, like local government 3 associations and regional energy networks. The minimum award is \$1 million, and the maximum is \$2 4 5 million. These innovation grants provide 6 opportunities for local governments to focus on new 7 innovative energy efficiency deployment that would 8 not happen otherwise. A requirement of the 9 innovation challenge is that awardees must share 10 best practices and implementation templates with the 11 Energy Commission and other local governments.

12 The timeline to implement the Local 13 Government Challenge is as follows. We anticipate 14 releasing the Grant Funding Opportunity on December 15 30th later this month. In January 2017, we'll host 16 the Pre-bid workshop and at the end of February 2017 17 the proposals will be due. In April 2017 we will post the Notice of Proposed Awards and at June 14, 18 19 2017, the Business Meeting where grant awards 20 considered.

The Efficiency Division plans to conduct broad outreach including, but not limited to: local government networks, regional energy networks, local government consortium, disadvantaged communities networks, CEC Listservs, funding opportunities

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1 webpage, and diversity webpage.

2 Thank you. This ends the presentation of 3 information, we are available to respond to any 4 questions.

5 CHAIRMAN WEISENMILLER: Great. First, any
6 comments from anyone in the room or on the phone?
7 (No audible response.)

8 CHAIRMAN WEISENMILLER: Great, let's 9 transition to Commissioners, Commissioner

10 McAllister?

11 COMMISSIONER MCALLISTER: Yeah, just 12 quickly I wanted to maybe put out a little bit of 13 context here and Christine Collopy who's really led 14 this effort, put all these pieces in place, has been 15 really key. And I want to acknowledge her as well, 16 so chime in if I miss anything. And then thanks to 17 Anne and the other staff in the Efficiency Division 18 for putting this together. And I think Anne, you're 19 on loan from the LAF Office and so thanks for taking 20 this one.

The timeline is pretty short, we need to get the money out by the end of the fiscal year, so that's pretty accelerated but doable.

I guess really the big observation here is that local governments, particularly after we had 1

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1 the boom and then we had the bust, and all the local 2 governments laid off most of their people in their 3 building departments. They really downsized what 4 they did on buildings, they really sort of battened 5 down the hatches and they've been on C rations ever 6 since. And they've started back with the economy 7 bouncing back, but they're really never going to get 8 to those previous levels. I think they've kind of 9 realized that that wasn't sustainable for the most 10 part.

11 And so at the same time here we are at the 12 state level, we've got building code, we've got 13 these state mandates here and there. We've got the 14 law of the land that everybody's supposed to comply 15 with. But a lack of resources as the local level, 16 which is where the authority is over buildings. So 17 the building departments are there and they touch 18 every single project. Every permit they have to do 19 all of those processes and if they don't have the 20 staff to do it then what do they do? They focus on 21 health and safety and that's it sometimes. You 22 know, obviously this is gross generalization, it's 23 not the case all over the state, but in many, many 24 cases there just aren't resources at the local 25 level.

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1 So we wanted to do two things with this 2 swept ARRA money. We had some ARRA money that just 3 didn't get utilized and some of it went to DGS and 4 some of it we're keeping for this. And it was 5 already oriented towards local government and sort of financing related efforts. And so this is not a 6 7 u-turn, but it's a bit of a rededication of those 8 funds to something similar but that we heard from 9 stakeholders is really what they want.

10 So we're trying to do two things, one is to 11 help disadvantaged communities who maybe are trying 12 to get started with their clean energy efforts and 13 their planning. And their implementation of things 14 that maybe isn't completely innovative, maybe it's 15 been done other places, but they need resources to 16 do it. So those will be smaller grants on a 17 noncompetitive basis. And then the other piece was 18 for more innovative ideas that will be competitive 19 and so really trying to get the local governments 20 that won't move the needle, that will help the 21 marketplace do efficiency better and scale it 22 quicker.

23 So highlights for this program, I think we 24 have all the infrastructure we need to manage it and 25 to do the RFP and get it going. And I'm highly

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optimistic about it, another area where the Action
 Plan recommendations are being moved forward. So I
 want to congratulate all the staff on getting this
 done.

5 CHAIRMAN WEISENMILLER: That's very good.6 Let's move on to b, Sylvia?

7 (Colloquy re: presentation slides.)
8 MS. BENDER: Thank you.

9 Good morning, Chair -- or good afternoon, 10 we've moved along haven't we here, already. Good 11 afternoon, Chair Weisenmiller and Commissioners, I'm 12 Sylvia Bender, Deputy Director for the Energy 13 Assessments division.

14 I am here to provide a brief update on our 15 Integrated Resource Plan activities. As Michael 16 said earlier, the Energy Commission is establishing 17 the process for publicly owned utilities, the 16 18 largest of those public utilities, to submit 19 integrated resource plans to us for review. These 20 plans, when aggregated with plans from the CPUC-21 jurisdictional entities, will allow for a more 22 cohesive examination of how the different SB 350 23 policies and mandates can fit together to achieve 24 viable, efficient, and cost-effective greenhouse gas 25 reductions for California, while maintaining

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1 electric system reliability. Next slide.

2 Being able to compare and aggregate these 3 plans effectively means ongoing collaboration and 4 coordination with other agencies, divisions, and 5 stakeholders along the way. Energy Commission staff in the Assessments Division are continuing that 6 effort to keep the POUs informed as we work toward 7 8 proposed guidelines. The Joint Agency Steering 9 Committee, which is comprised of the CPUC, ISO, and 10 ARB, and other identified working groups continue to 11 discuss how this new planning effort may impact our 12 current multi-agency forecast process alignment, the 13 mechanism for allocating an electric sector GHG 14 reduction target, and the possibilities standardized 15 input assumptions or variables.

16 Commission staff is attending and 17 participating in relevant workshops at the ARB and 18 CPUC. Within the Commission, coordination also 19 means leveraging workshops on relevant areas within SB 350, such as the recent transportation 20 21 electrification, the RPS, and energy efficiency. 22 Next slide. 23 In preparing the proposed guidelines, staff

24 is considering three guiding principles:

25 First, IRP guidelines and reporting

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1 requirements should be coordinated as much as 2 possible with other POU reporting requirements to 3 avoid duplicative requirements.

When aggregated, the IRPs submitted to the Energy Commission and those to the CPUC, should inform policy makers about the California's evolving resource portfolio, and assist in 2030 energy policy and planning efforts.

9 And finally, POUs should have flexibility 10 to develop their plans in a manner that recognizes 11 local planning goals and challenges, risks and 12 uncertainties, but keeps entities moving toward the 13 SB 350 procurement and GHG reduction goals. Next 14 slide.

15 Energy Assessments Division staff is 16 preparing a staff paper designed to inform and guide 17 discussion toward the POU IRP guidelines. The paper 18 will provide a preview of the proposed guidelines to 19 be discussed in an early 2017 workshop. Comments 20 will be considered in developing the final 21 guidelines for adoption in summer of 2017. 22 SB 350 intends that these plans lay out the 23 resource needs, policy goals, physical and 24 operational constraints, and the general priorities or proposed resource choices of individual 25

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utilities. Further, SB 350 requires that IRPs
 address procurement for energy efficiency, demand
 response, energy storage, transportation
 electrification, diversified areas of procurement,
 and resource adequacy.

6 Staff is currently envisioning these 7 requirements. Two scenarios covering a planning 8 horizon through 2030; some standardized input 9 variables for use in calculations, for example, fuel 10 consumption per light-duty plug-in electric vehicle. 11 We're hoping by providing some of these standard 12 assumptions and then having the utilities provide, 13 of course their numbers in deployment, we'll be able 14 to more easily compare these plans; and four 15 standardized tables that are built on requirements 16 that we already have for our IEPR. These tables 17 would look at things like capacity resource 18 accounting, energy balance, RPS compliance and GHG 19 emissions.

20 And along with that there would narratives 21 related to system reliability, local reliability, 22 energy efficiency targets and programs,

23 transportation electrification investments, storage,

24 and planned transmission upgrades.

25

In sum, the guidelines would allow us to **CALIFORNIA REPORTING, LLC** 

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1 assess and report through the IEPR to the Governor 2 and Legislature how the POUs intend to use their 3 future demand and supply resources to align with the 4 energy policy goals in SB 350. Periodic updates 5 will allow us to track progress toward the 2030 electric sector GHG reduction goals, and the 6 7 deployment of energy efficiency, distributed 8 generation resources, and transportation 9 electrification in disadvantaged communities.

10 And finally there is a schedule of our next 11 These are the proposed dates for workshops steps. 12 that are our internal workshops here. As I say we 13 are also participating Friday in CPUC and ARB 14 workshops that are related to this topic. Januarv 15 there'll be a workshop again, a joint workshop, 16 related to the Energy Efficiency targets. But these 17 are our internal ones focused specifically on the 18 quidelines, which we are hoping to have adopted by 19 July 2017 to allow the public utilities ample time 20 to have these plans adopted by their boards January 21 1st, 2019. And delivered to us by January 31st of 22 2019.

So that concludes my presentation.
 CHAIRMAN WEISENMILLER: Thanks, Sylvia. I
 think obviously as we move forward we need to be

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1 coordinating with the PUC and ARB on these issues. 2 At the same time our relationship is much different 3 than the PUC's and the PUC will have a very 4 prescriptive "you must run this model, you must run 5 these assumptions, you must crank it through." And frankly, we're not in that position at all as much 6 7 as trying to make sure we get something that we can 8 at least figure out what their plans are, you know, 9 and pull it together.

10 One of the early biannual reports, we got 11 something from the LADWP, which made no sense, so we 12 spent a couple of years trying to demonstrate they'd 13 made no sense. And then I was doing some strategic 14 planning for LADWP and they were like, "God, you 15 took those seriously? We just thought we had to 16 fill out the form and we just sat down one afternoon 17 and filled out the form." So anyway trying to find 18 the right balance here where we can actually, at the 19 end of the day, talk about whether a plan is going 20 to get the greenhouse gas reductions we need and the 21 renewable numbers we need.

22 So anyway but it's as with many of these 23 things it's sort of the first step of what's going 24 to be a long process.

25 COMMISSIONER MCALLISTER: Can I ask one CALIFORNIA REPORTING, LLC

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1 question? So I guess I'm wondering, you know, these 2 resource plans seem like the appropriate place to 3 also ask the POUs to tell us what the role of 4 efficiency, in particular the doubling that's in SB 5 350, is going to be in their long-term plans. And 6 I'm wondering how that conversation is advancing, if 7 it is at all yet?

8 MS. BENDER: Well, it's going to be 9 dependent upon the target-setting process as well, 10 that will take place in 2017. So that will be part 11 of where the actual target comes from and then how 12 those might be allocated at will be a separate 13 conversation following that.

14 CHAIRMAN WEISENMILLER: Yeah, I think it's 15 probably better to think of our IRP process as 16 trying to bridge across their silos and pulling 17 information in. So I think we're going to be 18 looking more to well say you on the energy 19 efficiency doubling, Commissioner Scott more on 20 what's going on in our transportation 21 electrification, and Commissioner Hochschild more on 22 what other plans are on renewables. And somehow 23 then trying to see how they all fit together in the 24 IRP context. 25 COMMISSIONER MCALLISTER: Yeah, for sure.

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I just want to make sure like that is the
 expectation that is set for all of those different
 things, because it all adds up to the whole that
 we're really looking for.

5 CHAIRMAN WEISENMILLER: Exactly. And it's 6 important we continue to communicate, so we don't 7 suddenly discover we were thinking you were doing 8 something or vice versa --

9 COMMISSIONER MCALLISTER: Yeah, exactly.
 10 CHAIRMAN WEISENMILLER: -- and discover a
 11 gap.

12 COMMISSIONER MCALLISTER: Great, thanks.
13 CHAIRMAN WEISENMILLER: Great, any other?
14 Any public comments or questions?

15 (No audible response.)

16 CHAIRMAN WEISENMILLER: Okay. Let's go to 17 minutes, Item 19.

18 COMMISSIONER SCOTT: I'll move approval of 19 the minutes.

20 COMMISSIONER MCALLISTER: Second.

21 CHAIRMAN WEISENMILLER: All those in favor?
22 (Ayes.)

23 CHAIRMAN WEISENMILLER: The minutes are

24 approved.

25 Let's go to Item 20, Lead Commissioner,

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1 Commissioner Scott?

2 COMMISSIONER SCOTT: Great, so this is our 3 End of the Year Report where we have a chance to 4 recognize the staff and highlight some of our 5 accomplishments. And I wanted to say thank you so 6 much, to the Chair, for making time for us to be 7 able to do that at the end of the year, at our End 8 of the Year Business Meetings.

9 So one of the things I wanted to note, 10 every month as you all know, at the Business 11 Meetings we get to consider great projects. And 12 hear about some of the exciting activities taking 13 place here at the Commission, and there's a lot of 14 diligence, expertise, and effort that staff that 15 they continually put in every day to make that 16 happen for us. And so I want to make sure that the 17 acknowledge the terrific work that folks do every day to make sure that we've got these fantastic 18 19 projects in front of us.

As Lead Commissioner on Transportation, I work most closely with the Fuels and Transportation Division and I would love to give my personal thanks to all of the staff and the management there for the great work that they do.

25 I wanted to highlight for you some of

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1 Governor Brown's policies this year, and what we've 2 been working on. Our transportation team has had a 3 large focus on zero-emission vehicles, both battery 4 electric and the hydrogen fuel-cell electric. And 5 we've been working incredibly hard to stand up the 6 infrastructure networks that are necessary to 7 support those vehicles.

8 So over the past year we've made a lot of 9 progress in growing California's hydrogen refueling 10 network. Last year when I gave you this update, we 11 had 11 retail hydrogen stations. This year we have 12 25 and growing, so we're making some progress there. 13 We're a quarter of the way to our goal of an initial 14 100 stations.

15 These stations are not only building 16 consumer confidence, but they're truly expanding the 17 locations in which these fuel-cell electric vehicles 18 can travel. And now there are three models 19 available for people to purchase: the Hyundai 20 Tucson, Toyota Mirai and the Honda Clarity, which is 21 very exciting.

And as you all probably remember, maybe
from my May update, I had a fantastic opportunity to
drive from Southern California to Sacramento in a
little caravan of fuel-cell electric vehicles with

1 Mary Nichols from the Air Resources Board, with 2 Tyson Eckerle from the Governor's Office of Business 3 and Economic Development. And we had a fantastic 4 time and we actually demonstrated that yes, you can 5 drive from Southern California up to Northern California in a fuel-cell electric vehicle. They 6 are coming, we have about 800 of them on the road 7 8 today.

9 And I'm excited about that. If you look at 10 the chart that Secretary Moniz at the Department of 11 Energy put out, where you start out with about 300 12 battery electric vehicles and today we're at over 13 500,000, I hope that we're on that same kind of 14 trajectory right now seeing that began with the 15 hydrogen fuel cells.

16 So on our hydrogen team, I want to thank 17 Jean Barones and Phil Cazel the rest of the hydrogen 18 team for the terrific work they have done in this 19 space. They spent a lot of time really working 20 hand-in-hand with the station developers, with the 21 local permitting agencies, fire marshals, going to 22 different city council meetings to get us to where 23 we are today.

24 On the electric vehicle side, I won't give 25 you too many details, because we saw a lot of that 171

in Brian Fauble's terrific presentation a little bit 1 2 earlier today. But I will let you know that we 3 worked with Caltrans, with the Air Resources Board, and the Governor's Office to successfully designate 4 5 several routes in California as Alternative Fuel Corridors under the U.S. Department of 6 7 Transportation's FAST ACT, so we're really excited 8 about that, so that means we're going to get some 9 signage on those corridors. So that you know that 10 they can be -- you can charge up there or that you 11 can fuel up your hydrogen there. And then we have 12 quite a few that are called "signage pending," so we 13 need to do a little bit more work there to continue 14 the progress there. But it's pretty neat to have 15 some national recognition for many California 16 corridors.

17 And we also worked closely with the 18 Governor Brown's staff and his team on the 2016 ZEV 19 Action Plan, which was released just a couple of 20 months ago. And I really want to say thanks so much 21 to Jennifer Allan, to Leslie Baroody, to Thanh Lopez 22 and Noel Crisostomo for their great work there. 23 Another thing that we were focused on was 24 the sustainable freight effort. As you know we 25 delivered a report at Governor Brown's request to

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1 Governor Brown of what the state could do on 2 sustainable freight. I want to thank Andre Freeman 3 and Larry Rillera for the great job that they did 4 representing the California Energy Commission in 5 coordinating with our Air Resources Board, with CalTrans, with Go-Biz and really all of the 6 7 transportation-related agencies across the state, to 8 be able to put that plan together.

9 Similar to our SB 350 Report, we've got the 10 plan, the hard work is going to be getting the 11 implementation of that done and getting the 12 sustainable freight. But we're excited about that, 13 our team has done a fantastic job.

14 And we've also continued our engagement 15 with the six ports here in California. That's the 16 Port of San Diego, the Port of Long Beach, Port of 17 Los Angeles, Port of Hueneme, Port of Stockton, and 18 Port of Oakland. And so we've been really working 19 together modeled after our Department of the Navy 20 partnership to find things that are mutually 21 interesting to the ports and to the Energy 22 Commission. As you can imagine, they're interested 23 in things like resilience, so they're looking at 24 microgrids. They are interested, of course, in 25 cleaner transportation so we're looking at that as

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well. They're interested in changing out their
 lights from the High Mast CFL lighting to LEDs.

3 One of the things that's really exciting 4 about the lighting is when the Port of Hueneme 5 really dug into it, it turned out to be so economical to change to the LEDs that they said, 6 7 "You know what? We don't even need to use the ECCA 8 Program to get there. We can just make this happen." So that's an exciting message that they 9 10 can take to other ports. You don't actually 11 necessarily need the financial assistance to be able 12 to swap those lights. And Larry Rillera, Rey 13 Gonzales, Mike Gravely, and my Adviser, Rhetta 14 deMesa have demonstrated great leadership on these 15 initiatives.

I won't say too much more about the I won't say too much more about the Barriers Study, because we had a chance to talk about that earlier. But I do want another shout-out to the fantastic team who worked so hard to put that to to put that

Just a few more highlights, I wanted to talk about our Petroleum Market Advisory Committee. They've been busy this year. They've had four terrific meetings. They've done a lot of assessment of the entire petroleum system, so we've looked at 174

1 the pipelines, we've looked at the refineries, we've 2 looked at the shippers, you know, any number of the 3 components that go along with the petroleum market. 4 And so I really want to thank the Committee Members 5 on that for taking time and lending their expertise to the Commission. And our staff: Ryan Eggars and 6 7 Susan Ejlalmaneshan, Samantha Arens and Gordon 8 Shremp, for the work that they've put together in planning those meetings. 9

10 And it's been a busy year for my office. 11 Commissioner Douglas and I are on eight siting cases 12 together. And so I want say thanks so much to the 13 Hearing Officers for the great work that they do. 14 So that's Susan Cochran, Ken Celli, Raoul Renaud --15 who's retired and so hopefully having a lot of fun 16 enjoying his retirement -- Raj Dixit, and Ralph Lee 17 as well as Paul Kramer and our fantastic Siting Advisor Kristy Chew. She's just been a godsend for 18 19 our office. Her knowledge and expertise that she 20 lends to me and my staff has been fantastic.

I want to say thank you to John Kato who runs our Transportation Division. He joined earlier this year as the Deputy Director of the Fuels and Transportation Division. And he stepped into his new role right away, and he's certainly been shaking 175

1 things up with his innovative and creative thinking.
2 He has been a lot of fun to work with, and I look
3 forward to seeing what we'll be able to continue to
4 accomplish under his leadership.

5 I want to say thanks to Elyse Cheung-Sutton, O'Shea Bennett, Tami Haas, and Yee Xiong on 6 7 the great work they have done. We've been wanting 8 to update the Transportation web page, so that it's 9 really more modern looking. And that it's a lot 10 cleaner and that it's easy to find the things that 11 you're looking for on it. So they've done a 12 terrific redesign, which we're hoping to get 13 launched soon here either by the end of the year or 14 early next year.

15 I wanted to highlight Alana one more time, 16 just because of the terrific work she did with our 17 Summer Institute this summer. It's fantastic to 18 have the high school students have an opportunity to 19 see lots of different career options and that the 20 Energy Commission is a fantastic place to work. 21 Sandy Louey from the media team, Barry Steinhart, 22 Sarah and Sunday from OGA.

And then, of course, I love working with
all of you my fellow Commissioners. I thank you for
the collaboration and the partnership. I want to

thank Kourtney and Rob and Drew. It's always
 wonderful to get to work with you, you guys really
 help make our jobs so much easier.

4 And then I want to say thank you to my 5 terrific team from both earlier this year, so Courtney Smith who's moved on to our Renewables 6 7 Division and Amie Brousseau who's moved on to our 8 Efficiency Division. And then my current team: Matt 9 Coldwell, Rhetta deMesa and Monica Shelley. As you 10 all know without our advisers and our fantastic 11 admins we wouldn't be able to get through the day 12 much less a week or a month in a sane way. So I 13 want to say thank you to all of them.

14 I'm sure that I've left off a whole bunch 15 of the wonderful people that we work with at the 16 Commission, but wanted to highlight a couple of 17 those accomplishments and a few of those folks. So 18 thank you much. And Happy Holidays to everyone. 19 COMMISSIONER MCALLISTER: Yeah, really hard 20 to believe a year is almost done, another year. 21 So the Efficiency Division is one of the 22 bigger divisions, maybe the biggest division, I'm 23 not sure. But I think it maybe has the most people 24 in it, so maybe Rob can confirm that, but I believe

25 it is. It's up to 120 or 30 or something like that. 177

There's a lot of people, so you're all going to have
 to bear with me.

And as we saw in this meeting today, a lot happened in Energy Efficiency and there have been a number of meetings like that this year, actually. This was not the only one where we've had a lot of really great accomplishments in Efficiency. And so I just want to go through some of the accomplishments.

10 I'm going to do -- it's mind-boggling, it's 11 spectacular, a lot of how we've pushed the 12 efficiency discussion forward. And just the context 13 is it's not checking box and doing what we have to 14 It's not just oh we're past the deadline, we've do. 15 got to crank this thing out. It's actually, we're 16 changing the discourse I think on energy efficiency. 17 And kind of refreshing the conversation in a way 18 that's really going to be positive. And some of 19 those pieces in the Barriers Report and certainly 20 the Action Plan, they're really beginning to have an 21 impact on the marketplace. And I think staff just 22 deserves so, so much credit for keeping that -- just 23 the level of discourse and engagement with 24 stakeholders and their level of knowledge and 25 expertise really is sort of up-to-date and

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1 innovative and leading.

2 So the Existing Building Energy Efficiency 3 Action Plan, that we talked about a little bit 4 earlier, I have not yet mentioned Bill Dietrich. 5 He's been in and out of the room today, but he is 6 providing leadership in that office, the Existing 7 Buildings Unit. And it's really great when you have 8 a capable manager and a person who is passionate and 9 also knowledgeable about the subject area, which he 10 is. 11 And on my team is Martha Brook actually who 12 did such a great job that I hired her into my office 13 as my adviser. And Abhilasha Wadhwa, Laith Younis 14 and Veronica Martinez on that team. 15 And on the Local Government Challenge, Anne 16 Fisher, we saw that. And Christine, I want to thank 17 you again for shepherding that process and 18 continuing to do so going forward. 19 Also the statewide Commercial Building 20 Benchmarking and Disclosure Program that is making 21 great progress, and Erik Jensen is the lead on that, 22 again under Bill's leadership, Martha B. and Laith 23 also part of that team. 24 So Building and Energy Efficiency Standards 25 is one of the main things that the Commission does. 179
1 It's a big deal. It's saved uncounted and untold 2 energy over the 40 years of the Energy Commission's 3 existence and it's a big team. So Christopher Meyer is the leader of that office, the Building Standards 4 5 Office. And on that team Peter Strait is a Supervisor, Jeff Miller, Bill Pennington provides so 6 much value. I don't know if he's in the room, but 7 8 he's a lion of energy efficiency at this point in 9 California. Marc Alatorre, Mazi Shirakh, Payam 10 Bozorgchami, Danny Tam, Simon Lee, Gabe Taylor and 11 Adrian Ownby. I mean, each of those names, I could 12 go on about each of those people and how capable and 13 how much value they're adding.

14 The Outreach and Education Unit around 15 Title 24 is led by Chris Olvera as the Supervisor. 16 And it's just a breath of fresh air whenever I get 17 an update from those folks, because they are out 18 there, they're getting questions, they are just 19 inspiring trust across the state with respect to the 20 Building Standards. And if you know the Building 21 Standards and you've got it on your shelf, you know 22 that inspiring trust about that is kind of a full-23 time job in itself. It's a complicated document, 24 there's a lot to it, and it takes a lot of handholding sometimes. And they do it really well, 25

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so on that team is Daniel Wong, Javier Perez, Andrea
 Bailey, Alex Pineda and Paula David. So thank you
 to all of them.

4 Also in the Building Standards, in the 5 implementation is the Building Standards Office again with Christopher Meyer. The software and the 6 7 managing the development and maintenance of the 8 software, the CBECC-Res and CBECC-Com, Todd Ferris 9 is the Supervisor, Larry Froess, Dee Anne Ross, RJ 10 Wichert, Thao Chau, Micky Shewmaker, Marc Alatorre 11 again, Danny Tam, Mazi Shirakh. Some of these 12 people are on multiple teams, just shows you how 13 busy they are. And many of them have just become 14 the knowledge base of the state on these issues.

15 (Ringing)

25

16 That was my time up. (Laughter) And really 17 in this building there are colleagues and we know 18 roughly what they do and occasionally we'll all get 19 briefings from them when something of interest comes 20 up. But out there in the world, thousands of people 21 look to them for their expertise. And they pick up 22 the phone and they call them. And they really, I 23 think make an impact out there in the world, and 24 take that very seriously.

> So the Compliance Manuals, again is a big 181 CALIFORNIA REPORTING, LLC

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1 task in and of itself. Some of the same names here, 2 but Christopher Meyer again, Alexis Smith, Peter 3 Strait's the Supervisor, and Bill Pennington, Marc 4 Alatorre, Mazi Shirakh, Payam Bozorgchami, Danny Tam 5 and Simon Lee and Gabe Taylor all are working on 6 that as well.

7 The Title -- no, I think I covered that, 8 okay.

9 The Compliance Enforcement Unit, let's see 10 so that's under Bill Dietrich as well. And it's Joe 11 Loyer, Randy Brumley, Veronica Martinez, Lea Haro is 12 the Supervisor, Alex Wong and Suzie Chan, they do an 13 amazing job.

14 The Alternative Compliance Manual, 15 reference manuals for the Building Standards Office, 16 again with Christopher is Larry Froess, and Dee Anne 17 Ross, and RJ Wichert.

18 Let's see, on the Compliance and 19 Enforcement, on that piece with Bill Dietrich is the Manager, is Joe Loyer, Randy Brumley, Tav Commins, 20 21 Veronica Martinez, and Eddie Heriberto Rosales. 22 Again, that team just knocks it out of the park. 23 Let's see, lately I think they've been sending out 24 the copies of the manuals, right? Across the state 25 and Christine is nodding. That in and of itself is 182

a literally heavy-lifting task, because they're
 thick and there's 600 copies of this going out to
 building departments across the state. So they do
 that as well.

5 So I want to thank on the Outreach piece, I 6 want to thank also Kelly Moriarty and Javier Perez, the Title 24 hotline staff, which is students from 7 8 Sac State for the most part. Prop 39 hotline staff 9 also staffed by lots of students. They do a great 10 job and actually it's a really terrific training 11 ground to get people into the Commission for those 12 that are so inclined.

13 So let me see here, I will mention briefly 14 the fact that we shepherd some of these stretch 15 codes that local governments do. And our contact 16 for that is Ingrid Neumann and she does a fantastic 17 job. She's on Christopher Meyer's team and she 18 really I think is developing again a brand that 19 cities -- they like to work with her and it really 20 helps them get what they need from the Energy 21 Commission to bring forward their local codes, local 22 ordinances. 23 Okay. So on Appliance Efficiency, that's a

24 whole -- okay, here we go, sorry I got a little 25 turned around. So we did the Computers and Monitors 183

1 today, but we have a lot of proceedings in various 2 states these days. And the Computers and Monitors, 3 we went through that this morning. I left off 4 Michael Murza actually, who is also Legal on that, 5 so thanks to him. That team is great.

6 The General Service LED Lamps and then Small Diameter Directional Lamps, we got that one 7 8 through this year. I mean, we're talking many 9 hundreds of gigawatt hours saved over time with that 10 one, so Harinder, Ken Rider, Jared Babula and 11 Michael Murza again on the Legal team for that one. 12 The Voluntary Lamp Specification with Soheila and 13 Pat Saxton, Pete Strait, Gabe Taylor, Leah Mohney 14 who's the Supervisor and Michael Murza and then 15 Angela Wuerth on the Legal added to that one as 16 well.

17 On Water Devices, Pool Pumps and Portable 18 Electric Spas, there's a staff report, we're moving 19 that one forward. Sean Steffensen is our expert on 20 Water Devices and is just fantastic as is Ben 21 Fischel. That's Lisa DeCarlo and Michael Murza on 22 Legal as well.

23 The Drought Executive Order, Sean and Leah 24 Mohney are leading that piece of it, which we have a 25 small piece of.

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1 And on the Database, this is something that 2 definitely deserves highlighting, the Modernized 3 Appliance Efficiency Database System. This is the 4 system that every manufacturer with a device that is 5 required to be listed in California, like the Computers and the Monitors from this morning and 6 7 everything else that we regulate. And many are 8 informational, they're maybe not regulated, but 9 informational data has to be put in there.

10 The rolling out of this new database has 11 been a huge success. I mean, it's gone basically 12 without a hitch and it's much more interactive, it's 13 better for us, it's better for the industry, 14 lowering costs across the board and providing better 15 information to us and everyone else. So Christine 16 Awtrey led that effort and did just a really great 17 job. And that's Ben Fischel, Galina Dushenko, 18 Carlos Baez, Betty Chrisman, Carolyn McCormack, and 19 Leah Mohney is the Supervisor.

20 Let's see, earlier the Appliance Efficiency 21 Standards, again Outreach and Education on Air 22 Filters and Deep Dimming Fluorescent Lamp Ballasts 23 and HEPA Water Chilling Packages, that came into 24 effect in July. Bruce Helft, Carlos Baez, Pat 25 Saxton, Jeff Miller and Leah Mohney all helped that 185

1 go successfully and smoothly.

2 So we also do a lot of participation at the 3 federal level, and who knows what that's going to look like going forward. We really, I think, have a 4 5 lot of question marks about what the Department of 6 Energy and the Feds in general are going to be doing 7 on Appliance Efficiency Standards. Historically, 8 they've been a partner with us and we've worked really kind of hand in glove, sometimes without 9 10 direct communications depending on the legal 11 situation, but often as partners. And helping each 12 other in taking up whatever slack might exist out 13 there. Doing the work that needs to get done. 14 And so we participate in various ways with 15 them on the Advisory Committees, submitting 16 comments, really just trying to move the needle in a 17 way that helps California. And so Kristen Driskell 18 manages that, the strategy for when and how we 19 participate in there. But the whole Appliances team 20 really pitches in big on that. 21 So a lot of people in the Efficiency 22 Division, I hope I didn't miss anybody, if I did I 23 apologize. And I think that there are lots of other

25 my notes here, I've gone through like six pages,

24

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people that I think deserve some kudos. Let me find

1 sorry hold on just a second. Here's my notes, okay.
2 In conclusion I have the following 30
3 people in addition.

4 CHAIRMAN WEISENMILLER: In your errata? 5 COMMISSIONER MCALLISTER: So yeah, exactly. 6 This is my second errata I quess. But yeah, let me 7 just so it. All of you, it's such a thrilling time 8 really to be in this field, because we're doing so 9 much. It's hard, you know, there's lots of 10 technical detail. We have a lot of stakeholders who 11 need stuff and who want stuff and not everybody 12 always agrees on everything, obviously. And a lot 13 of this sounds very technocratic, for sure. But at 14 the end of the day we're saving a lot of energy, 15 we're making buildings better, we're doing any 16 number of things that really improve people's lives. 17 And the professionals that are here at the Energy Commission, they're the ones doing it. I mean, they 18 19 know it. I mean, that's why they come to work and 20 they come with motivation every day, so they deserve 21 a little bit of kudos for that.

22 So let's see, I want also thank Susan 23 Cochran. I don't have as many cases as you and 24 Commissioner Douglas do, Commissioner Scott and 25 Commissioner Douglas, but with Susan Cochran and

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Paul Kramer working with them on that is a pleasure.
 And Kristy obviously is fantastic.

3 I wanted to really thank Dave Aschuckian 4 and Christine Collopy who keep the Energy Efficiency 5 Division running and I think it's a big ship. And there's a lot of turnover, people coming and going, 6 people shifting responsibilities. And you know, we 7 8 have a number of vacancies and they're really 9 working on filling those spots and making sure we 10 have teams that can get the job done that needs to 11 be done at a high quality, with a high quality. So 12 thank you for that.

13 One the IT front the Efficiency Division 14 really depends increasingly -- and on a lot of the 15 data work we're doing and on the databases and some 16 of the infrastructure that we're trying to build 17 going forward -- really has developed a great relationship with the IT folks. And Steve Bonta and 18 19 his team I think are really stepping up to the plate 20 and are extremely knowledgeable.

21 On the Media side Amber Beck, I have to 22 recognize. She does such a fantastic job for us. 23 She's the Lead on the Energy Efficiency stuff. I 24 mean, you've seen her in action today for the 25 Computers and Monitors. We had a great press

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1 conference earlier on that with everybody around 2 table answering questions with reporters and she 3 just did a fantastic job. So Albert Lundeen there 4 is really running a great shop there as well.

5 And I have to call out Barry Steinhart, 6 again the work with the Legislature, just keeping 7 track of all the stuff that's going on there. And 8 keeping us all informed.

9 And finally, I think I can say finally 10 there, I want to thank my own staff: Bryan Early, 11 Martha Brook who is my most recent, and is already 12 adding a ton of value. And also Pat Saxton who 13 Martha stepped into Pat's shoes and he -- on many of 14 the things that came to fruition today and in the 15 past few Business Meetings -- Pat really did heavy 16 lifting on. And it's come to fruition and he should 17 definitely feel a huge sense of accomplishment there 18 as well. And Donna Parrow, my Adviser, my 19 Administrative Assistant, who keeps my life sane. 20 So I very much appreciate that and she does a 21 fantastic job. 22 So and then I want to just thank Rob and 23 Executive Office, Drew Bohan, you guys are great to

24 work with and Chief Counsel, Kourtney, it's

25 certainly great to work with you as well.

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And my colleagues. I learn stuff from you
 all every day, so it's really terrific to be here.
 So thanks very much.

4 COMMISSIONER DOUGLAS: Great, well thank 5 vou. And it was a big day for Efficiency as I said 6 earlier, and then it just kept getting bigger so 7 congratulations to the Efficiency team. So I'd also 8 like to take a moment to recognize the hard work and long hours put in by many Energy Commission Staff 9 10 and to offer my own personal appreciation and thank 11 yous for that work.

12 In 2016, I was Lead Commissioner for the 13 IEPR, DRECP and various other sort of planning 14 efforts, Siting. I've been on every active siting 15 case or amendment committee in 2016, largely with 16 Commissioner Scott although also with Commissioner 17 McAllister. And I continue to be involved in 18 compliance and some enforcement and legal matters as 19 needed. And so I just think across the board I've 20 been very impressed with the output this year and 21 work ethic and commitment to mission.

In the Siting Unit or subdivision, a big thank you to the staff in that Division. We've worked on 11 active cases, some of them have had just tough timelines. And just real need for rigor 190

1 around meeting deadlines and getting analyses done 2 in a time-efficient way. And every case has 3 approximately 30 staff engaged. These include 4 project managers, engineers, biologists, 5 archeologists, attorneys, project assistants. It's 6 pretty rare that the staff in the trenches on siting 7 get a whole lot of public appreciation for a lot of 8 their hard work and efforts. But they are vital to 9 meeting our mission and really key to a lot of our 10 accomplishments.

11 I want to offer a particular thank you as 12 well to Tom Gates, Gabriel Roark, Matthew Braun in 13 the Cultural Unit especially, for their outreach and 14 work with Native American tribes. We've done a lot 15 of that outreach and we've made just a great amount 16 of progress in 2016 and going back before that 2015-17 2016. And even going back before that, I mean we've really spent years building relationships. And a 18 19 lot of that work has come to fruition in the sense 20 that we have some well-established and good 21 relationships with a lot of the Native American 22 tribes that we work with.

A thank you, as Commissioner Scott pointed
 out, to Kristy Chew in her role as Technical Advisor
 to the Commissioners on siting matters. To all of

1 the hearing officers and legal staff who support the Hearing Office. I would read their names, but 2 3 because Commissioner Scott's done that I think will 4 pass. But I'll mention also the support staff: 5 Darlene Burgess, Cody Goldthrite, and Maggie Reed, 6 the Dockets Unit. You know this is just really part 7 of some of the mechanics that make this place work 8 and so really, really good to see everyone stepping 9 up and helping us get the work done.

10 A big thank you to the Public Adviser, and 11 everyone in the Public Adviser's Office, your work 12 is essential. And it's so valuable and you guys are 13 really the front lines, and very often, in terms of 14 really engaging with the public and people who want 15 to interface with the Energy Commission and may not 16 know exactly how, and may not really have a lot of 17 history. And you provide really essential guidance.

18 The DRECP came to a very major milestone in 19 2016 with the signing of the Record of Decision, 20 which puts it in effect across about 10 million 21 acres of public land. And I think we're going to 22 see going forward, that the certainty that creates 23 for both where renewable energy can go and be 24 streamlined on public lands, and quite a lot of it. 25 And also how and where conservation can work and how 192

1 that interfaces with private lands, is going to pay 2 a lot of dividends going forward.

3 So I'll thank the Energy Commission's team 4 that focused on DRECP: Scott Flint, David Vidaver, 5 Kristy Chew, and Tom Gates in particular. And I 6 think this might -- well, I'll wait on that.

7 IEPR, I'll go to IEPR, so the IEPR this 8 year was an update, but it was still a very 9 substantial document covering a wide range of 10 topics. One of the biggest topics that we took on 11 in addition to some of our -- well we took on a 12 number of things. So let me just start: Aliso 13 Canyon, transportation fuel supply reliability 14 issues, updates on Southern California electricity 15 reliability, methane leakage, climate adaptation 16 activities for the energy sector, climate and sea 17 level rise scenarios, the California Energy Demand 18 Forecast.

So in addition to these topics we also took on an Environmental Performance Report. It's the first time that we've done this report in quite a long time. And it was, I think, very well received. We had a very strong team on the report: Jim Bartridge, Melissa Jones, Judy Grau, and Eli Harland. With strong support and help from the

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step-division, particularly staff working under Matt
 and Erik as well as Al Alvarado, Scott Flint and
 others on the transmission and planning side.

And so that report, which looks at how the 4 5 electricity system has changed on the ground, you 6 know, not in terms of the operations and technology so much, but in terms of the environmental 7 8 footprint. And how that environmental footprint has 9 changed in the last decade or so, driven in very 10 large part by conscious decisions made in our energy 11 and environmental policy. And also responding to 12 events that were outside of our control such as the 13 shutdown of San Onofre, for example.

14 How we have changed over time and what that 15 has meant for the footprint and the environmental 16 impacts, and environmental performance of the 17 system. And I think that this report just really 18 tells a dramatic story of how this system has 19 changed over time, become much less intensive in 20 greenhouse gas emissions, much more efficient in 21 terms of how it uses natural gas, much less coal. 22 And I could go on, but I will just suggest the 23 report to anyone who hasn't had a chance to take a 24 look at it.

25

I'll give a quick thank you to Paul Jacobs, 194 CALIFORNIA REPORTING, LLC 22 Napa Street, Rodeo, California 94572 (510) 224-4476 1 the Commission's Deputy for Compliance Assistance 2 and Enforcement.

3 I'll join my colleagues in thanking the 4 staff again, who worked on the 350 Barriers Report. 5 And join my colleagues in thanking Rob and Drew at the Executive Office, Kourtney Vaccaro our Chief 6 7 Counsel, Barry Steinhart our Legislative Director, 8 Albert Lundeen and his staff in the media shop. My 9 Executive Assistant, Ollie Awolowo, without whom I 10 would really be underwater most of the time. And my 11 advisers, Le-Quyen Nguyen and Jennifer Nelson.

12 And I will mention, because this is the 13 Commissioner's Report and we'll do a little more 14 than year-end wrap-up, that yesterday the Governor 15 and Department of Interior -- I probably should have 16 started with this I realized halfway through. The 17 Governor and Department of Interior signed an MOU 18 that is a continuation of the close coordination 19 that the state, and the agencies under Department of 20 Interior, have had on renewable energy planning and 21 permitting.

It adds offshore as well as onshore renewables into the MOU. And so it added a host of new agencies that have been less involved in the onshore effort, but who will be central to the

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1 offshore effort. And it I think will be a very 2 valuable tool in helping us bring a lot of the 3 partnerships and methods that we really developed 4 and worked on in onshore permitting and planning, to 5 the offshore issues. As well as continuing the 6 partnerships that we've had and we certainly hope to 7 continue going forward. And the MOU I think is a 8 very strong statement to that effect.

9 So with that I'll pass this on to10 Commissioner Hochschild.

11 COMMISSIONER HOCHSCHILD: Great, well thank 12 you and ditto to all that. And thanks to everyone 13 here for making it through this marathon meeting.

14 I will just say, yeah to restate the 15 obvious, we're entering a whole new chapter in terms 16 of the politics around the issues we're working on 17 in energy here with the national landscape. And our 18 role becomes more important than ever. I'm really 19 personally incredibly proud of the work we're doing 20 and I love the job, it's enormously fulfilling and 21 challenging. And you see the impact of it the 22 further -- you see it more clearly the further you 23 get away.

And as I've traveled to other states and countries it's just become even more crystal clear.

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1 I don't think I've had the opportunity to share on the trip to Marrakech for the Climate Summit. I can 2 3 just briefly recap that, because it was a good 4 example of what I'm talking about. But we had 5 Senator Leon actually joined Ken Alex and Matt 6 Rodriguez and Yee Chang (phonetic) and some others, 7 myself, on this trip. And it's just a real 8 statement, I think, of the commitment of the 9 Legislature to these issues.

10 And California was really received like a 11 country there and the interest in our progress at 12 every level on renewables and efficiency, electric 13 vehicles, was extraordinary. And I'm happy to 14 report now with the Under 2 MOU that's been such a 15 big priority for the Governor, there's now 166 16 signatories representing 35 percent of Global GDP. 17 So no matter what happens with Paris that is in 18 place and growing. And the Energy Commission has 19 just been at the heart of so much of our progress. 20 So with respect to my Division, my sincere

21 thanks to the whole team, especially Courtney Smith.
22 Because I think where we're pushing really to
23 streamline as much as we can, and we're having a new
24 electronic system for the RPS that's going into
25 effect in a few weeks, and with NSHP as well we're

really making the process and everything we do as
 friction free as it possibly can be. And my
 gratitude to Emilio Camacho, Ken Rider and Kathleen
 as well.

5 Just a couple of other little highlights, 6 lately we did -- Commissioner Douglas and I had the 7 workshop yesterday on the IOPs for the POUs. A 8 really fruitful exchange and you see utilities like 9 Palo Alto who are not talking about how they're 10 going to get to 50 percent, but they're talking 11 about how they already got there. And we're in 2016 12 and good to see some leadership.

13 And in this sort of soft power versus hard 14 power that we have, I think of the hard power being 15 the money and the regulations we put out and the 16 soft power being the convening I think it's really 17 valuable to have those forums for the POUs to 18 exchange information. And I want to thank 19 Commissioner Douglas for particularly speaking about 20 some of the permitting challenges and opportunities. 21 And then on the Offshore Wind piece as well 22 a lot of interest in that. One highlight I'll note, 23 I met with Danish Oil and Gas, which is the largest 24 offshore wind developer in the world. And they have 25 now gotten offshore wind costs down to 6 cents a

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kilowatt hour compared to Rhode Island where the
 first U.S. project is 24 cents. So big progress
 there and the Governor has launched this taskforce,
 so my sincere gratitude again to Commissioner
 Douglas for leading this new effort.

6 You know, you have not only much more 7 experience on these sort of planning and permitting 8 issues, but the patience of Job in dealing with all 9 of the necessary machinations you need to do with 10 all the other agencies for us to be successful.

11 And then finally, we'll continue this quest 12 speaker program. We've had over 50 guest speakers 13 now come in over the last four years since I've been 14 on the Commission. And I want to thank Albert and 15 the Communications team. He's actually bought some 16 new equipment to record these folks as we highlight 17 California clean energy and clean technology success 18 stories and make a podcast of each of those 19 speakers. So I know Commissioner Scott, you had an 20 idea for potential speaker next time as well. And 21 any other Commissioners who want to bring someone 22 in, Albert is going to be heading that up. 23 And I'll stop there. Thank you.

24CHAIRMAN WEISENMILLER: So obviously, my25context is I cut across a lot of the organization,

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1 not necessarily some areas in depth but generally a
2 high level. So I'm going to really on a lot of
3 things say, "me too" to what people have covered.

But I'm just going to start with at least two quick announcements. One of them was I was going to point to the 29 Palms even that Commissioner Douglas and I did. And I would point out that it was a rare opportunity to see a solarpowered howitzer, if you want to think about that for a second, or take a flight in a C-130.

11 In a whatever more somber note, god only 12 knows it seems like this is just the time of our 13 lives, but Jim Harding passed. Most of you don't 14 know Jim or know of Jim. Jim was at the Commission 15 actually when I came on board. He was a very 16 seminal guy in the nuclear area. I would just point 17 to two things, I mean he was at Friends of the Earth 18 before he came to the Commission. And there's a 19 really nice "Earth Island" story about his life. 20 But anyway the two things I would note quickly as 21 highlights.

One is well he was just out of high school, actually at that point SMUD was thinking of something called Rancho Seco 2 (phonetic) and Jim decided, as a hobby, to really get into the

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1 economics of nuclear. And by the time he was done 2 it just drove a stake in his heart, which actually 3 given TMI and Rancho Seco 1, it really saved 4 Californians billions, was the bottom line.

5 And the other thing he did was when he was with Friends of the Earth, he hired this little 6 7 Oxford don. And he came by periodically to see us 8 when I was here and sleep on Jim's couch and many of 9 you know him as Amory Lovins. But anyway, again I 10 think Jim certainly had a major contribution in some 11 parts of energy issues, particularly nuclear issues. 12 So anyway I think all of us who knew him, obviously 13 a lot of other characters of his life, certainly 14 saddened to see his passing.

15 So again, I'm going to spend a few, few 16 minutes on trying to do highlights and just 17 reflecting back. And I think sort of at a high 18 level the three things that were most important to me this year were one, we had our diversity 19 20 statements. But this was the year to really try to 21 convert the words into actions and deeds. And I 22 think we're making progress although there's more to 23 do. 24 I think in terms of in particular, in the

25 R&D area and the Fuels area, but again we also

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signed the MOU with the Navy on partnering on
 renewable projects, fuel projects, energy
 efficiency. It's been a great relationship. I'm
 hoping it continues.

5 And then I would say in terms of sharing California's experience and success with other 6 7 jurisdictions, we really carried a lot of the lion's 8 share of the load on structuring California's participation in Sim and Sub-Sim. And certainly I 9 10 know Sue McFadden (phonetic) really called out the 11 role of Alana and Grant on that. So again, it 12 wasn't easy but we pulled it off, which was good.

13 A lot of my focus is sort of 350 14 implementation. And again, I would just point to 15 what we've done on the Barriers. Point to what 16 Michael's done on generally the effective project 17 management across the boards there. And certainly 18 the three of you have covered well, what's going on 19 in renewables, energy efficiency and transportation 20 electrification. You know, I'll point to some of 21 the work in Sylvia's shop that's been going on, on 22 like the energy efficiency target setting.

23 Certainly Mike Jaske, Sylvia -- your staff
24 have really pulled together as we try to figure out
25 what doubling energy efficiency means -- Malachi,

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1 Andrea Gough, who really worked on how do we enhance 2 our data collection to really get us to where we can 3 move forward on it. I think Dave Vidaver, Garry 4 O'Neil, Melissa Jones, as we try to figure out what 5 integrated resource planning means. Certainly Al Alvarado, Grace Anderson, Misa Milliron on their 6 7 work on the Regional Plan. They've been really 8 important there. I think Ken Holmes has done a lot 9 of legal support there.

10 Again, I think we've hit the Barriers11 Report very well, but again hats off to those folks.

I haven't talked about R&D and again I'm going to stay at a very high level there, but I think Laurie tenHope has done exceptional leadership and has a great team. So again, I'm not going to go through her org chart as much as say that they've done a phenomenal job in terms of administering the money in a way that we can be proud of.

You know, certainly moving the annual EPIC Symposium was important, the EPIC Challenge, the Energy Innovations showcase site and climate research, you know, for California fourth Climate Change Assessment was just huge. And obviously I want to thank Mike Gravely for his work with us on Department of Defense.

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And Allan Ward, for his quiet work on dealing with the tons of contracts that we're moving out. I mean, we all know that if you march down the Chief Counsel's Office late at night, you're probably going to find Allan and Gabe there. Yeah, so anyways we appreciate that.

7 Again, I talked about electricity and 8 natural gas, I mentioned Sylvia. The other part is 9 certainly Lana Wong and Katie Elder on the Aliso 10 Canyon stuff. You know, again it sort of happened 11 on our doorstep, we had to deal with it.

I think we've gotten the first commercial end us survey out since 2008. And certainly Cary Garcia and Chris Kavalec are doing a lot of work there in terms of figuring out what's going on behind the meter of photovoltaics. How is it affecting our forecast? So again it's a really great group there.

19 I think everyone has pointed to Barry20 Steinhart and Sarah Smith on the Leg Office.

Obviously the Administrative Service
Division does a lot of the I would say plumbing
here. So again, I want to thank Rob Cook for he and
his team's work on the Budget, Administration, and
Building Operations. They keep the lights on and

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things really going. Jana Temple, Gil Hernandez,
 Tisha Wong, and Dale Bosley for basically an
 accurate and efficient building system for the power
 plant siting now and reimbursement.

5 Media, obviously Albert and his team is doing really well I think. Also in terms of the 6 7 Editing team Carol Robinson, Sandy Louey and the 8 editing team for all those countless reports, which go out of here sort of looking like English. 9 10 Although they didn't necessarily look that way going 11 in, you know, particularly the Aliso Canyon Action 12 Plan was important.

13 Hats off to Katie Kukulka, I mean the video 14 stuff for Hoover it was just really phenomenal when 15 suddenly she's sort of pulling Secretary Schultz, 16 myself and Danny together to do a tape and just sort 17 of splice it together to really get the message out. 18 On the IEPR obviously Heather Raitt and her 19 team do a phenomenal job on getting that and making it almost look easy, although it's sure not. And 20 21 Heather also helps me a lot on tracking progress and 22 again that's an important document, a lot goes into 23 that.

24 RETI 2.0, we're sort of wrapping that up,
25 but certainly Brian Turner has pushed that along.

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Scott Flint, Al Alvardo, I mean a lot of -- Tom
 Dowdy, a lot of folks have been part of the team to
 actually get that over the finish line.

I think we've all acknowledged each other 4 5 as a key part, you know, of collegial space relationship. Rob and Drew, certainly our Deputy 6 7 Division Directors, Public Adviser, Chief Counsel 8 Kourtney Vaccaro and the rest of her team. And 9 again, I'm not going to go through and identify all 10 the attorneys down there that can keep us out of 11 trouble.

And certainly, in terms of my office, And certainly, in terms of my office, Catherine Cross has certainly been in a critical role as I learn more and more every day with her out. And certainly I want to thank Doris Yamamoto and Laura Castenada for trying to help me keep somewhat organized as we go through.

And I've got a great team of advisers: obviously Kevin Barker, Jana Romero, Pam Doughman, Grant who -- and my new Senior Nuclear Policy Adviser, Justin Cochran. And the international team: Alana Sanchez, obviously Emilio and Fong Dai (phonetic) got me to and back from China and Mexico, which certainly was important.

25

And like I said at the beginning, the Sim
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1 and Sub-Sim stuff was a real homerun that fell on a 2 few people to really spend a lot of time. But it's 3 really important to get all the details right, so 4 again it's been a great year. I want to thank 5 everyone for their help there.

6 So with that, let's transition to Chief7 Counsel's Report.

8 MS. VACCARO: Nothing to report other than 9 that we will be going into a closed session and 10 you'll be teeing that up before we go into closed 11 session.

12 CHAIRMAN WEISENMILLER: All right.13 Executive Director Report?

MR. OGLESBY: Well, so much has been said, but I also want to extend my gratitude to the many dedicated staff here at the Energy Commission and the leadership as well.

18 Ditto to all of the comments you've made, 19 but I also wanted to pull out the recognition of 20 some Energy Commission staff who have made a life-21 long -- a clear long contribution to the Commission. 22 And I can't name all of them, but to name of a few 23 who have retired during this past year and deserve 24 to be recognized for their long service at the 25 Energy Commission. And included among those are

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1 Mark Hutchison -- and we've had a slate of 2 retirements, but Mark Hutchison; Suzanne Korosec, 3 who did work with the IEPR and ended up with the 4 Renewables Division after a very long career. And 5 the last one I'll mention, although more deserving 6 is Roger Johnson. Who did a great job first under 7 Terry and then taking on the reins of the Siting 8 Division.

9 Most at the top of my list for gratitude is 10 Drew Bohan, Chief Deputy Director who makes my job 11 easier and is an exponential factor in the 12 effectiveness of the organization. And I'm glad you 13 also praised him as well.

Our deputies Rob Cook, Ashuckian, John Kato, Sylvia Bender, Courtney Smith, Michal Lewis, and Laurie tenHope all were recognized and deserved it.

18 A couple of folks I want to add to the 19 roster of appreciation. We have a stellar Budget 20 Officer who assumed the reins of our Budget shop, 21 Melanie Vail, this year. And she had spent her 22 career with the Energy Commission, moved into that 23 position, has done a great job stepping into those 24 shoes which are very specialized. And require a lot 25 of knowledge and great communication skills, which 208

1 she has.

Two other undersung heroes that helped make all that we do more effective, our Auditor In-Chief, Lisa Negri, who not only contributes to the effectiveness of the operation of all our programs, but has also devoted time making sure that those we interface with fulfill their obligations. And has done that very, very well.

9 Paul Jacobs has headed up our office for 10 Compliance Assistance and Enforcement, made an 11 immediate impact. And is raising the game of all of 12 the Energy Commission staff that has an obligation 13 to make sure that the rules and programs and 14 standards we adopt are fully enforced. And so I'm 15 very grateful for the team he's building as well as 16 his leadership and experience that he brought with 17 him.

18 Heather Raitt, Albert Lundeen, Barry 19 Steinhart of course. Michael Sokol, I want to amplify his praise, because he's not only Barriers 20 21 Report, but he's also been involved in coordinating 22 the other elements of SB 350 including shepherding some of the -- being the guiding coordinator for the 23 24 data management that we need to do in making sure 25 that we're dealing with it responsibly and securely. 209

1 And finally my own staff: Karen Bos, Laura 2 Castaneda and Gloria Guthrie who make life easier. 3 And thanks to all of you for your continued support. 4 CHAIRMAN WEISENMILLER: Yeah, actually Rob, 5 you should also call out Steve from IT. MR. OGLESBY: Indeed, Steve Bonta, 6 7 absolutely. 8 CHAIRMAN WEISENMILLER: Yeah, exactly. 9 You're right. 10 Sorry, Public Adviser Report? 11 MS. MATHEWS: Good afternoon, again. I 12 first want to start off with thanking all of my 13 staff. Ashley, Daphne who's new and brings a lot of 14 great energy as my Executive Assistant -- many 15 people stop by all the time and tell me what a great 16 she's doing -- and Rose Mary Avalos, who joined the 17 office in July of this year and is our Siting Specialist, so she's been very helpful. Especially 18 19 with a lot of the translation and language needs 20 that we've had. 21 I want to just introduce two people. Rene 22 Macleay Santiago, if you can stand up? He's now the 23 new Deputy Public Adviser here at the Energy

24 Commission, a great addition to this agency. He
25 comes from the Governor's Office Appointments Unit.

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So in addition to having experience with environmental justice and environmental equity issues, he has connections with all 58 counties throughout the State of California. And so we're happy to leverage that as we do more targeted outreach to achieve our outreach goals for including all Californians in our programs and policies.

8 And then we welcome back Eunice Murimi, who 9 is our AB 865 Diversity Coordinator, so she will be 10 our key point person to implementing that statute, 11 which encourages the Energy Commission to increase 12 our diversity of funding opportunity applicants as 13 well as the benefits of those programs.

14 And since I am on that, thank you, Eunice, 15 I'm going to just transition very briefly to the 16 Diversity website. It is updated and we have 17 actually a feature item. We have listed the 2016 18 Highlights, so everyone can go to the Diversity 19 website and see what each Division has done to reach 20 our diversity commitment goals. But I would like to 21 just briefly talk about the Energy Commission.

This first highlight that we have is from the ARFVTP Program in which we funded not only a clean energy bus to have electric buses, but the members who work on that in Riverside are a reentry 2

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1 into the workforce, so they are from prison to the 2 work pipeline. And so we're really not only 3 creating a cleaner environment for that community, 4 which is a disadvantaged community, but we're 5 actually bringing in an economic benefit.

6 So we hope to highlight more work that the 7 Commission is doing in our funding programs and in 8 our policy that's actually making a difference in 9 communities across California.

10 A couple of other highlights, I guess when 11 I'm wearing my AB 65 diversity hat, I had an 12 opportunity this month to attend the Asian Chamber 13 of Commerce. They had a business matchmaking 14 session and Adam Gottlieb from Research and 15 Development was able to attend with me. And it was 16 a great opportunity to let diverse businesses know 17 about the funding opportunities here at the Energy 18 Commission.

19 And I also had an opportunity this week to 20 attend the California Women in Energy. And I want 21 to thank Commissioner Scott for providing that 22 opportunity for me to attend. I was able to network 23 with a lot of the women-owned businesses in Energy. 24 Cathy Neal was there and she sang the praises of the 25 Energy Commission as she is a recipient of one of

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1 our funding awards and she is a woman of color who 2 owns, I believe a biotech company.

3 A couple of other highlights, I just want 4 to commend Energy Commission staff and programs for 5 increasing their outreach with various workshops and notices being translated into different languages to 6 7 reach for more Californians. I'm thankful for the 8 opportunity to speak on both the state, regional, 9 and national platform to talk about our diversity 10 commitment as well as the 350 Barriers Report.

11 And lastly, just to mention that we doubled 12 our participation in the Summer Institute in Energy 13 Law and Policy Program. And I will be recognized in 14 February of this year at UC Irvine for the work with 15 the Foreign Law Academy, which includes the Summer 16 Institute.

17 Oh, there is one other thing that I'd like to share, that we are kicking off the SB 350 Social 18 19 Media Campaign. So I would like to thank Albert and 20 his team, so we are continually raising awareness 21 about the barriers and wanting to continue to engage 22 disadvantaged communities and low-income customers 23 about the barriers, their contribution, and how they 24 can benefit from our clean energy policies.

And with that, that's it.

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1 CHAIRMAN WEISENMILLER: Okay. Actually, I 2 should also because different things pop up, but 3 we've covered a lot of ground, and obviously one of 4 the questions is who did we miss? But I think we 5 wanted also to give shout out to Dian Grueneich in 6 Stanford for the intern assistance we got.

7 MS. MATHEWS: Uh-huh.

8 CHAIRMAN WEISENMILLER: Yeah, so any public 9 comment?

10 (No audible response.)

11 Then this meeting is adjourned. Actually, 12 it's not adjourned, I'm sorry, if you could sort of keep me straight yet. The Commissioners are now 13 14 going into closed session with Legal Counsel 15 pursuant to Government Code Section 11126(e) on the 16 following items set forth in Agenda Item 21. Energy 17 Commission versus Mendota Bioenergy, LLC and Grant 18 ARV-11-012 with Electricore, Inc.

We anticipate coming back here at about4:40, so we'll be back.

(Closed Session at 3:38 p.m.)
(Return from Closed Session at 4:50 p.m.)
CHAIRMAN WEISENMILLER: Okay, back on the
record. This is Chair Weisenmiller, we're back from
our closed session and this meeting's adjourned.

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1	(Adjourned	at 4:51	P.M.)
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\_fin@1. Odul

Kent Odell CER\*\*00548

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And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 28th day of December, 2016.

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