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BUSINESS MEETING

BEFORE THE

CALIFORNIA ENERGY COMMISSION

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In the Matter of:

Business Meeting

CALIFORNIA ENERGY COMMISSION 1516 NINTH STREET ART ROSENFELD HEARING ROOM - FIRST FLOOR SACRAMENTO, CALIFORNIA 95814 WEDNESDAY, AUGUST 12, 2015

10:00 A.M.

Reported by: Kent Odell

APPEARANCES

COMMISSIONERS

Robert Weisenmiller, Chair Andrew McAllister Janea Scott David Hochschild

STAFF

Rob Oglesby

Christine Stora

Mary Dyas

Jeff Ogata

Paul Kramer

Cheryl Closson

Brett Arriaga

Kristen Driskell

Jack Bastida

Erik Jensen

Monica Rudman

Haile Bucaneg

Tim Olson

Eric VanWinkle

Reynaldo Gonzalez David Nichols Alana Mathews

INTERESTED PARTIES

Melissa Foster Chris Doyle Jerry Desmond Meg Waltner David Farley Daniel Gleiberman Charles Kim Aidan Reynolds Mary Anderson John Bertrand Kevin Messner Valerie Winn Andrew (unknown) John Shears Mr. Jensall

Mike Gravely

I N D E X

Proceedings

Items

1 ENERGY COMMISSION COMMITTEE APPOINTMENTS. Possible approval of appointments to the Energy Commission's Siting Case Committees. Contact: Eric Veerkamp/Mary Dyas. 10

- a. Palmdale Hybrid Power Project (08-AFC-9C)b. Blythe Energy Project, Phase II (02-AFC-1C)
- 2 ENERGY COMMISSION COMMITTEE APPOINTMENT. Consider appointment of a single Committee to consider the pending staff Motions to Terminate and applicant requests to extend suspensions of the following Applications for Certification. Contact: Paul Kramer.
 - a. Sun Valley Energy Project (05-AFC-03)
 - b. San Gabriel Generating Station (07-AFC-02)
 - c. Willow Pass Generating Station (08-AFC-06)
- 3. PRESENTATION OF THE GEOTHERMAL ENERGY ASSOCIATION HONORS AWARD GIVEN TO THE ENERGY COMMISSION'S GEOTHERMAL GRANT AND LOAN PROGRAM. Commissioner Hochschild accepted the award on behalf of the Energy Commission on June 3, 2015 and will present the award to Geothermal Grant and Loan Program staff. Contact: Cheryl Closson.
- 4. NEW SOLAR HOMES PARTNERSHIP PROGRAM UPDATE. Staff presentation on the New Solar Homes Partnership program highlighting previous year achievements, current status and future outlook. Contact: Brett Arriaga.
- 19

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5. HEARING AND POSSIBLE ADOPTION OF REGULATIONS -BUILDING ENERGY EFFICIENCY STANDARDS, 2016 NONRESIDENTIAL LIGHTING ALTERATIONS (15-BSTD-01)

a. INITIAL STUDY AND NECATIVE DECLARATION. Possible approval of a resolution approving an Initial Study and adopting a Negative Declaration for proposed changes to the California Building Energy Efficiency Standards (Standards), codified in Title 24, Part 6,

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Section 141.0, subdivision (b) (2) (I)-(L), and Tables 141.0-E and -F of the California Code of Regulations. Contact: Maziar Shirakh.

b. NONRESIDENTIAL LIGHTING ALTERATIONS. Possible approval of a resolution adopting changes to the nonresidential lighting alteration provisions of the 2016 Building Energy Efficiency Standards in California Codeof Regulations, Title 24, Part 6, Section-141.0, subdivision (b)2(I)-(L), and Tables-141.0-E and -F. Contact: Maziar Shirakh.

- 6. HEARING AND POSSIBLE ADOPTION OF ENERGY EFFICIENCY STANDARDS FOR LAVATORY FAUCETS AND SHOWERHEADS (15-AAER-05). Proposed resolution adopting amendments to the Appliance Efficiency Regulations in Title 20 of the California Code of Regulations relating to energy and water efficiency standards for residential lavatory faucets and showerheads. The proposal is in response to the persistent drought conditions in California and under the emergency rulemaking authority granted by Governor Brown in Executive Order B-29-15. The proposed standards would reduce water, electricity and natural gas consumption by setting maximum flow rates for residential lavatory faucets and showerheads. This adoption hearing comes after a July 28th Lead Commissioner workshop on the topic. Contact: Kristen Driskell.
- 7. CONSIDERATION AND APPROVAL OF THE APPLIANCE REBATE PROGRAM GUIDELINES AS DIRECTED BY THE GOVERNOR'S EXECUTIVE ORDER B-29-15 REGARDING DROUGHT RESPONSE. Proposed resolution approving the Appliance Rebate Program Guidelines. The Guidelines focus on Phase 1 of the program and describes eligible appliances, rebate amount, consumer eligibility, program implementation, rebate processing, and reporting and documentation. The program is contingent on legislative approval of Greenhouse Gas Reduction Fund (GGRF) funding. Contact: Jack Bastida.
- 8. STATE OF WASHINGTON DEPARTMENT OF COMMERCE. Proposed resolution approving Agreement RMB400-15-004 with the State of Washington Department of Commerce, a contract to receive \$81,200 in from the State of Washington. In December 2014, the State of Washington received a \$450,200 award from the U.S.

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Department of Energy to develop a mandatory benchmarking and disclosure policy plan and legislative strategy for the Pacific region. The award is to be shared among the U.S. members of the Pacific Coast Collaborative (Washington, Oregon, and California); California's share of the award is \$81,200. This contract transfers the California funds to the Energy Commission. Energy Commission staff will assist the Collaborative in developing a building energy use benchmarking and disclosure policy, developing documents, and implementing programs. Contact: Erik Jensen. (Federal Reimbursement Funding)

9. CITY OF SANTA CRUZ.

Proposed resolution approving Agreement 002-15-ECD with City of Santa Cruz for a \$1,788,433 loan at one percent interest to install more efficient interior and exterior lights; streetlights; heating, ventilation and air conditioning improvements and high efficiency motors. Annually, the project is estimated to save 749,431 kilowatt hours, 12,045 therms and \$127,063 in energy costs. Based on the loan amount, the simple payback will be 14.1 years. (ECAA funding) Contact: Monica Rudman.

- MONTAGUE ELEMENTARY SCHOOL DISTRICT. 10. Proposed resolution approving Agreement 002-15-ECG with Montague Elementary School District for a \$419,520 loan at zero percent interest for energy efficiency and renewable energy measures at Montague Elementary School. The energy measures include upgrading interior and exterior lighting equipment, upgrading heating, ventilation, and air condition (HVAC) equipment and controls, and installing a photovoltaic system on the site. The project is estimated to save the district 142,000 kWh and 800 gallons propane resulting in annual energy cost savings of \$21,300. The simple payback is 19.7 years. The district has also applied for grant funds through the California Clean Energy Jobs Act (Proposition 39). (ECAA-Ed funding) Contact: Haile Bucaneq. 80
- 11. HEARING AND POSSIBLE READOPTION OF EMERGENCY REGULATION AND FINDINGS AND MODIFICATION OF ALTERNATIVE AND RENEWABLE FUEL AND VEHICLE TECHNOLOGY PROGRAM REGULATIONS (15-OIR-02). Contact: Tim Olson. 82

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- a. Possible approval of a resolution readopting an emergency regulation in California Code of Regulations, title 20, section 3103. The readoption would extend, for 90 days, an emergency regulation pertaining to funding restrictions under the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). The emergency regulation eliminated a credit discounting requirement for ARFVTPfunded projects and was adopted by the Commission on February 25, 2015 and approved by the Office of Administrative Law on March 12, 2015, to be effective for 180 days.
- b. Possible approval of a resolution adopting amendments to California Code of Regulations, title 20, section 3103. This regulation would make permanent the changes addressing eligibility in the previously-adopted emergency regulation, as well as make additional changes to funding restrictions for the Alternative and Renewable Fuel and Vehicle Technology Program.
- 12. SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. Proposed resolution approving Agreement 600-15-006 with South Coast Air Quality Management District for a \$2,400,000 contract to demonstrate zero emission fuel cell electric hybrid Class 8 cargo transport vehicles at the Ports of Long Beach and Los Angeles. (ARFVTP funding) Contact: Eric VanWinkle.
- 13. CONCURRENT TECHNOLOGIES CORPORATION. Proposed resolution approving amendment 1 to Agreement 600-12-016 with Concurrent Technologies Corporation for a \$1,200,000 contract amendment to modify the budget and expand the data collection effort to fully assess the economic and technical viability of transforming military base tactical vehicles to plug-in electric drive vehicles participating in vehicle-to-grid services. This amendment will extend the term end date 18 months. (ARFVTP funding) Contact: Reynaldo Gonzalez.
- 14. CALIFORNIA COMMUNITY COLLEGES CHANCELLOR'S OFFICE. Proposed resolution approving Agreement 600-15-004 with the California Community Colleges Chancellor's Office (CCCCO) for a \$250,000 agreement to plan and implement an alternative fuels and advanced vehicle technology apprenticeship training program. Currently, there is a lack of trained individuals to

service the growing alternative fuels market within the state. This contract will provide training funds, and will include, but not be limited to classroom training and online training through the Community Colleges, and training from businesses participating with the California Community colleges in clean fuels and advanced transportation technologies, to increase the number of individuals able to repair and maintain alternatively fueled vehicles for California's growing clean vehicles market. Contact: David Nichols. 104

- CALIFORNIA WORKFORCE INVESTMENT BOARD. 15. Proposed resolution approving Agreement 600-15-005 with the California Workforce Investment Board for a \$250,000 Inter-Agency contract to plan and implement an alternative fuels and advanced vehicle technology apprenticeship training program. Currently, there is a lack of trained individuals to service the growing alternative fuels market within the state. This contract will provide training funds, and will include, but not be limited to classroom training, online training, and training from businesses in clean fuels and advanced transportation technologies, to increase the number of individuals able to repair and maintain alternatively fueled vehicles for California's growing clean vehicles market. Contact: David Nichols. 107
- 16. Minutes: Possible approval of the July 30, 2015, Business Meeting Minutes.
- 17. Lead Commissioner or Presiding Member Reports. A Lead Commissioner on a policy matter may report to the Commission on the matter and discussion may follow. A Presiding Member on a delegated committee may report to the Commission on the matter and discussion may follow.
- 18. Chief Counsel's Report: The Energy Commission may adjourn to closed session with its legal counsel [Covernment Code Section-11126(e)] to discuss any of the following matters to which the Energy Commission is a party:
 - a. Asphalt Roofing Manufacturers Association v. Energy Commission (Third District Court of Appeal # C076990).
- b. In the Matter of U.S. Department of Energy

		(High Level Waste Repository), (Atomic Safety- Licensing Board, CAB-04, 63-001-HLW).		
	-c.	Communities for a Better Environment and Center for Biological Diversity v. Energy Commission (Court of Appeal, First Appellate District, # A141299).		
	d.	Energy Commission v. SoloPower, Inc. and SPower, LLC. (Sacramento County Superior Court # 34-2013-00154569)	-	
19.	Executive Director's Report. 13		130	
20.	Public Adviser's Report.			
21.	Public Comment			
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PROCEEDINGS 1 2 AUGUST 12, 2015 10:05 A.M. 3 CHAIRMAN WEISENMILLER: Good morning. Let's 4 start with the Pledge of Allegiance. 5 (Whereupon, the Pledge of Allegiance was recited in unison.) 6 7 CHAIRMAN WEISENMILLER: Good morning. First announcement is that Item 5 will be held, so let's 8 9 start with Item No. 1. 10 MS. STORA: Good morning. My name is 11 Christine Stora, I'm the Compliance office manager. 12 I'm filling in today for Eric Veerkamp, who could not 13 be here today. He is the project manager on the 14 Palmdale Hybrid Power Project. 15 The Palmdale Hybrid Power Project was licensed on August 10th, 2011, as a nominal 570 16 17 megawatt hybrid facility using combined-cycle and 18 solar trough technologies located in the city of 19 Palmdale, California; however, the facility has not 20 yet been constructed. In June 2015, the Energy 21 Commission approved transfer of ownership from the 22 City of Palmdale to Palmdale Energy, LLC. 23 The project owner, Palmdale Energy, LLC, 24 filed a Petition to Amend on April 30, 2015, and later 25 supplemented that petition on July 17, 2015. The

petition seeks to change the project from a hybrid combined-cycle/solar trough project to a fast start combined cycle technology, thereby removing the solar component, and increasing the nominal output from 570 MW to 645.

6 Staff is requesting assignment of a committee 7 due to the scope of the project changes and to best 8 accommodate public participation in the amendment 9 proceeding.

10 CHAIRMAN WEISENMILLER: Is the applicant 11 here?

MS. STORA: Unfortunately, the applicant could not make it today.

14 CHAIRMAN WEISENMILLER: Okay. Commissioners, 15 I think it's time to assign a committee. Karen Douglas 16 will be the lead and Janea Scott will be the second 17 member. I need a motion.

18 COMMISSIONER MCALLISTER: I'll move.

19 COMMISSIONER HOCHSCHILD: Second.

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

22 CHAIRMAN WEISENMILLER: This item passes four23 to zero. Thank you.

24 Let's go on to Item B, which is Blythe Energy 25 Project.

MS. DYAS: Good morning Commissioners, my name is Mary Dyas and I am the Compliance Project Manager for the Blythe Energy Project Phase II. With me this morning is Assistant Chief Counsel Jeff Ogata, and the applicant is also in attendance.

6 The Blythe Energy Project Phase II is a 7 nominal 569-megawatt combined-cycle project --

8 CHAIRMAN WEISENMILLER: Actually, hang on a 9 second. I guess we have someone from, I think it's 10 maybe on the first item, from Scott Galati's firm, on 11 1A.

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12 Please go ahead.
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13 FEMALE VOICE: I'm calling from Scott 14 Galati's office. I'm listening in for Scott Galati as 15 he will not be present today. He was involved in a car 16 accident this morning; however, he is expected to be 17 okay.

18 CHAIRMAN WEISENMILLER: We certain send our 19 regards to Scott.

20 FEMALE VOICE: I will, thank you.

21 CHAIRMAN WEISENMILLER: Okay. Thank you.22 Let's go on to Item 1B. Go ahead.

23 MS. DYAS: Okay. The Blythe Energy Project 24 Phase II is a nominal 569-megawatt combined-cycle 25 project that was certified by the Energy Commission in

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December 2005, but has not been built yet. The Blythe II facility will be located approximately five miles west of the city of Blythe. The project site is located on approximately 76 acres immediately adjacent to the operational Blythe Energy Project.

6 In 2012, Caithness Blythe II, LLC, received a 7 five-year extension of the Deadline for the Start of 8 Construction, from December 14, 2011 to December 14, 9 2016.

Ownership of the project changed in 2014, from Caithness Blythe II, LLC to AltaGas Sonoran Energy Inc.

On July 15, 2015, AltaGas Sonoran Energy Inc. submitted a petition to modify the Commission Decision for the Blythe Energy Project Phase II. The petition seeks to:

17 Rename the project from Blythe Energy Project18 Phase II to Sonoran Energy Project;

19Define a new point of interconnection;20Replace the two 190 MW Siemens SGT6-5000F21combustion turbines with a single, more efficient, 33322MW General Electric Frame 7HA.02 combustion turbine;23Replace the 208 MW Siemens steam turbine24generator with a more efficient 220 MW single-shaft25General Electric D652 steam turbine generator;

Increase the size of the auxiliary boiler to support General Electric's rapid response fast start capability;

Decrease the size of cooling tower from an 11-cell to a 10-cell tower in response to the reduced heat rejection requirements;

7 Decrease the size of the emergency diesel8 fire pump engine; and

Optimize the general arrangement.

10 The proposed changes to the project will be 11 substantial, but will not change the boundary of the 12 site. Staff will need to determine if the proposed 13 changes will result in adverse environmental impacts 14 that would be different than those analyzed in the 15 original proceeding and subsequent amendment.

16 At this time staff is requesting assignment 17 of a committee to best accommodate public 18 participation in this amendment proceeding.

19 CHAIRMAN WEISENMILLER: Thank you.

20 Applicant?

9

MS. FOSTER: Good morning, Commissioners. Melissa Foster with Stoel Rives, outside counsel for applicant AltaGas Sonoran Energy. Today with me is Chris Doyle, Vice-President of AltaGas Sonoran Energy, who would like to say a few words on behalf of the

1 petition to amend.

MR. DOYLE: I'd like to thank the Commission 2 3 for the time that they've taken to review our proposal 4 and as well as our future cooperation in the matter. 5 The project is essentially a reflection of improvements in technology since the initial amendment 6 7 was granted back in 2012. 8 CHAIRMAN WEISENMILLER: Commissioners, any 9 questions or comments? Any public comment? 10 Okav. So this committee will be Commissioner 11 Scott will be the lead and Commissioner Douglas will be the second member. I need a motion. 12 COMMISSIONER HOCHSCHILD: I move that item. 13 14 COMMISSIONER MCALLISTER: I'll second. 15 CHAIRMAN WEISENMILLER: All those in favor? 16 (Ayes.) 17 CHAIRMAN WEISENMILLER: Thank you. 18 MR. DOYLE: Thank you. 19 MS. FOSTER: Thank you. 20 CHAIRMAN WEISENMILLER: Let's go on to Item 21 2, Energy Commission committee appointment. 22 Paul, please. 23 MR. KRAMER: Good morning. Assistant Chief 24 Counsel Paul Kramer from the Hearing and Policy Unit. 25 These three cases, being the Sun Valley Energy

Project, the San Gabriel Generating Station, and the
 Willow Pass Generating Station, have applications
 pending for some years now, and for the past few years
 they've been in formal or informal suspended status.

5 So where we are today is that some of the 6 committees are no long fully populated due to turnover 7 of Commissioners among other things. And in each case 8 we have competing motions. A request from the 9 applicant to extend their suspensions for another 10 year, and motions from staff to terminate the 11 proceedings.

So the recommendation is that you appoint a single committee since they're all ultimately owned by NRG, they have basically the same attorneys, it makes sense to consider them all at a single hearing, and so we recommend that you appoint a single committee to conduct those hearings and go forward from there.

18 CHAIRMAN WEISENMILLER: Okay. I think we're 19 going to appoint -- again, it's whether it's a single 20 committee or the same committee three times that does 21 a consolidated.

I think it's time to look at these. I mean, frankly, I've always considered these sort of zombie projects, you know, and I think as we go through the transition from a system very much based on gas to one

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very much based on renewables, it's time to really
take a second look at these and look at clearing them
out if that's where the record ends up.

4 So anyway, I'm looking for a motion for a 5 committee. Commissioner Douglas will be the presiding 6 member and Commissioner Scott will be the second 7 member.

8 COMMISSIONER HOCHSCHILD: So moved.
9 COMMISSIONER MCALLISTER: Second.
10 CHAIRMAN WEISENMILLER: All those in favor?
11 (Ayes.)

12 CHAIRMAN WEISENMILLER: This also passes.

MR. KRAMER: And I'll just note for anyone listening, we've tentatively scheduled the hearings for the morning of August 26th, and we'll be issuing a notice shortly.

17

CHAIRMAN WEISENMILLER: Great.

Actually, I don't know if there was any commentary from either the applicant or the public on that, but certainly the hearing is scheduled and I encourage -- obviously the applicant will be there, and certainly encourage the public to participate. Let's go on to Item 3, presentation of the Geothermal Energy Association. Cheryl Closson, please.

25 MS. CLOSSON: I believe this was an item that

1 Commissioner Hochschild wanted to address.

2 COMMISSIONER HOCHSCHILD: Yeah, thank you. 3 So in 1980 the State Legislature passed a law 4 that divided up royalties from geothermal development 5 in California into three pots. So 40 percent were to 6 go to the counties, 30 percent to Fish and Wildlife 7 for resource protection, and 30 percent to the Energy 8 Commission for the Geothermal grant and loan program.

A month ago I was at a conference where the 9 10 Geothermal Energy Association presented an award recognizing the achievements of this program. And as 11 is so often the case, you know, the Commissioners 12 13 received the award but actually deserved none of the 14 credit, and so I wanted to take a minute today to 15 thank and acknowledge the good work of Cheryl Closson 16 and all her colleagues who have worked on this program 17 for the past 30-something years.

18 Geothermal does not get anywhere near the 19 attention of wind or solar but it's been a tremendous 20 resource for our state, and is a 24/7 resource, it's 21 clean.

And I actually just want to point out, you know, we have the largest geothermal resource in the United States. We really are the Saudi Arabia of geothermal, and the program has played a really

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critical role in that. We've actually given out almost \$75 million to 184 different projects throughout the state, including Modoc County, Salton Sea, Long Valley, Mammoth Lakes, the Geysers, and many others, and this is a great part of our clean energy mosaic and it wouldn't be possible were it not for the diligence of Cheryl and all your colleagues.

8 So what I'd like to do at this point is 9 actually invite all the Commissioners to come in front 10 of the dais and we'll just present this award to 11 Cheryl so Katie can take a picture.

12 (pause.)

13 CHAIRMAN WEISENMILLER: So let's go on to 14 Item No. 4, which is New Solar Home Partnerships 15 Program update.

MR. ARRIAGA: Good morning, Chair Weise miller and Commissioners. My name is Brett Arriaga and I'm the Renewable Energy Division's program lead for the New Solar Homes Partnership Program. I appreciate this opportunity to provide an update of the New Solar Homes Partnership Program and its future outlook.

The New Solar Homes Partnership Program, or NSHP, provides financial incentives to encourage the installation of eligible solar energy systems on highly energy efficient new residential construction

1 located in investor-owned utility service territories.

The NSHP program began in January of 2007 as part of the California Solar Initiative with a statutorily authorized budget of \$400 million and a program goal of installing 360 megawatts of solar by the end of the program.

Since program inception, reservation
applications and payments representing nearly 41,000
systems have been approved, resulting in the
installation of nearly 59 megawatts of new solar
energy systems. Assuming all reserved systems are
ultimately installed, the total installed figure would
exceed 123 megawatts.

As you may know, the Energy Commission originally administered the program, but in 2008 we signed contracts with the investor-owned utilities, or IOUs, to administer the program. For a variety of reasons, we resumed administrative control on September 1st of last year.

The rationale for Energy Commission administration was based on the immediate benefits to current and to future customers participating in the program. For example, lower administrative costs. We estimate an annual savings of nearly \$400,000, which translates into additional funding available for

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1 installed energy systems.

In addition, given a unified interpretation 2 3 of the guidebook, staff was successful at reducing 4 errors in application and payment packages. 5 And lastly, improved processing times. 6 To address a large backlog of reservations 7 and payments inherited from the utility 8 administrators, staff was successful in streamlining 9 our process to substantially shrink that backlog. 10 With all these improvements over the last eleven months, staff managed to process applications 11 and payments representing over 27,000 systems. As the 12 13 table shows, total capacities installed and reserved 14 from these past eleven months exceed 60 megawatts. 15 I'd also like to note the industry 16 stakeholders and trade groups have expressed 17 satisfaction and have given positive feedback the 18 Commission's administration of the program. 19 Although NSHP was granted statutory authority 20 to spend 400 million to achieve its installed 21 generation capacity target, the actual funding 22 received amounted to only 282 million due to the 23 expiration of its funding source, the Renewable Resources Trust Fund, in 2011, and the redirection of 24 25 some of these funds during past year budget

1 shortfalls.

25

As of August 3rd of this year, the NSHP has available funding of 66.4 million and requested funding of 14.2 million. Requested funding are those applications that we have received but we have not yet approved.

Assuming that all of the requested funding
applications are approved, remaining funding would
amount to 52.2 million.

10 The future outlook of the NSHP is promising. 11 Staff and management are working hard to close the 12 funding gap. For example, we are planning to request 13 additional funding and continued authority to 14 administer the program from the CPUC in order to meet 15 our overall 360 megawatt program goal.

16 In terms of current market trends that will 17 impact the program, the California Building Industry 18 Association, or CBIA, has indicated that as the 19 industry continues to recover from the economic 20 recession, the demand for new home construction will 21 continue to rise for the next several years. With this 22 growth in new home market and continued interest for 23 solar, the CBIA anticipates an increased demand for 24 NSHP program funding.

The program will also likely be impacted by

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the potential loss of the three percent federal investment tax credit, or the ITC, for residential solar installations that is set to expire December 31st of 2016. The potential loss of the ITC will also make NSHP funding incentives more critical to facilitating installation on new homes.

7 I'd also like to note that staff is
8 researching California water savings resulting from
9 the energy efficiency measures and solar generation of
10 systems incentivized through the NSHP program. While
11 staff is still reviewing our initial analysis, we hope
12 to have preliminary results shortly.

Finally, here is the NSHP contact information for our renewable call center and a link to our online application tool, both of which are available to the public.

17 Thank you for your attention this morning,18 and I'm available to answer any questions.

19 COMMISSIONER HOCHSCHILD: Let me thank Brett 20 and all your team for doing a terrific job. I asked 21 for this item be presented because it's been exactly a 22 year since we took over administration of the program, 23 and I'm very, very pleased and gratified with the 24 results.

25 I want to particularly acknowledge

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Commissioner McAllister again for really setting up the streamlining that I think has helped a lot with the results we're seeing.

Sometimes I feel like this kind of outlandish Commissioner from Silicon Valley who's talking about all this transformation that we're going make happen in renewables, but I'm reminded of that phrase, "If it exists, it must be possible," because it's already happening.

10 I just want to note the achievements we're seeing, you know, builders like K.B. Homes, a 11 heavyweight home builders that weren't doing green 12 13 building, they weren't doing solar at all. Ninety 14 percent of their homes now in the state of California 15 are being built with solar and they're including all 16 kinds of efficiency measures that they weren't before, 17 and we're seeing that trend take hold, and this is 18 really the glide path to the Governor's zero net 19 energy goal.

20 So I want to just thank again the team for 21 doing that. Some of what I'm seeing is just amazing. 22 Solar City along with Sun Power, the other big market 23 participant in this program, they hired 900 people 24 last month. You know, we only have 700 people at the 25 Energy Commission. So this kind of growth is good for

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the state, but it's very much fragile and there is --1 it doesn't take much to derail it either from us 2 3 stumbling in the administration or some other policy 4 mechanism, it's encouraging but it's fragile, and just 5 going forward recognizing that fact and we're trying to be as diligent as we can possibly be in trying to 6 7 attuned to market dynamics and really make the process 8 a friction free as possible.

9 And so I really want to again thank Brett and 10 your team for stepping up to the challenge and I'm 11 excited about the next year.

MR. ARRIAGA: Thank you. We appreciate that.
 COMMISSIONER MCALLISTER: I just want to make
 a quick comment, so thanks, Commissioner Hochschild.

I think this idea that we're in 2015, we have lots of technology at our disposal, and so we can streamline on the technology front and build the tools that help us do that just basic administrative work.

But there's also a really, I think subtle and important set of skills that's really interfacing with the marketplace, and we're trying to do that across the board at the Commissioner and really understanding our stakeholders and getting out there.

If we're trying to help markets move forward,
then we've got to understand and unpack and really dig

1 into how those markets operate, and I think building 2 those skills in a program administration contexts 3 something that the Commissioner is doing better and 4 better.

5 On the efficiency side certainly I'm pushing that same ethic, and on the NSHP there's just all 6 7 sorts of efficiencies to be gained that we are seeing 8 by having a statewide coverage program, one 9 administrator, and really facile quick turnaround 10 kinds of interactions with the primary stakeholders. 11 And I think that's a model that is very clear to me that it's part of the future of the Commission to help 12 13 us advance toward our increasingly aggressive goals. 14 So this is a great part of that evolution.

And I want to congratulate Commissioner Hochschild as well for leading that charge in practical terms as we go forward, so thanks very much.

18 COMMISSIONER HOCHSCHILD: Thank you, 19 Commissioner McAllister. Just a few more

20 acknowledgements.

21 Rob Oglesby was with us all day yesterday at 22 Sun Power as we were going down there to listen and to 23 learn from the stakeholders.

I also want to acknowledge Commissioner McAllister's adviser, Pat Saxton, who played an

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1 incredible instrumental role in just doing all the 2 problem solving below the surface that's made it work.

As well as Le-Quyen Nguyen, who's Brett's predecessor in the role, so thanks to all of them.

5 CHAIRMAN WEISENMILLER: You know, my 6 recollection is, one of the questions obviously on all 7 of our programs is diversity in where we are, and my 8 recollection was that with the new tool that was put 9 out this week that this is part of it, and I'm just 10 going to ask Rob to for the record identify how people 11 can access the climate tool.

MR. OGLESBY: It's on our website and there's a link to it on the website and it's a great tool that shows all the climate investments throughout the state by jurisdiction and type, including Prop 39 as well as solar.

17 COMMISSIONER MCALLISTER: Thanks, Chair, for 18 bringing up the diversity. I think as we get success 19 and scale, we sort of get parts of the marketplace to 20 gain market transformation, say, in solar or in 21 efficiency or in transportation, and we access those 22 initial early adopter type parts of the market, those 23 wedges.

I think it behooves us all to think about how we can expand and deepen participation in these

programs in a way that really reflects true diversity 1 2 and gets coverage across all of our populations and 3 regions. And particularly disadvantaged communities, I 4 think that's really important and that's a theme I 5 think we need to keep emphasizing more and more. CHAIRMAN WEISENMILLER: Yeah. Generally on 6 7 all of our programs I'm trying to encourage people to 8 think about how to connect them to the disadvantages 9 communities, and then connect them to all 10 Californians.

11 This is a little bit more difficult, but we 12 have pretty creative people here and a pretty creative 13 industry, so trying to figure out how to make sure 14 there's meaningful participation in this program in 15 disadvantaged communities is important.

16 MR. ARRIAGA: Thanks.

17 COMMISSIONER HOCHSCHILD: Thank you.

18 CHAIRMAN WEISENMILLER: Thanks.

19 Let's go on. As is indicated, Item 5 is being 20 held. I have a couple blue cards for Item 5, which 21 I'll assume are going to be up for the public comment 22 period.

Let's go on to Item 6. This is hearing and possible adoption of energy efficiency standards for lavatory faucets and showerheads.

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Kristen, please.

MS. DRISKELL: Good morning, Chair and 2 3 Commissioners. My name is Kristen Driskell. I am the 4 supervisor of the Appliance Efficiency Program in the 5 Efficiency Division, and I'm here today to present and recommend for your approval staff's recommended 6 7 changes to the water efficiency standards for 8 showerheads and residential lavatory faucets. 9 Next slide, please. California remains in the middle of a 10 historic drought. As of last week, reservoir levels 11 were at less than half of their historical averages. 12 13 And as many of you probably have noticed, we're in the 14 middle of quite a severe fire season. 15 Next slide. 16 In response to the drought emergency, 17 Governor Brown issued Executive Order B-29-15, which, 18 among other things, required the Energy Commission to adopt emergency regulations establishing standards to 19 20 improve the efficiency of water consuming appliances. 21 Seven days later, the Energy Commission 22 adopted emergency regulations for toilets, urinals, 23 and kitchen lavatory faucets. Those standards go into 24 effect for all products sold or offered for sale after 25 January 1st, 2016.

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Next slide, please.

After the Commission adopted these historic standards, we began to look for additional water saving opportunities, and found it in showerheads. Together faucets and showerheads account for one-third of all residential indoor water use, presenting a significant opportunity to achieve water savings.

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Next slide.

9 At the same time, the plumbing industry, 10 represented by Plumbing Manufacturers International, 11 or PMI, submitted comments to the Commission concerned 12 that it could not meet the January 1st effective date 13 for residential lavatory faucets, and requested a one-14 year delay.

15 They claimed that they would have to design, 16 produce, test, and certify 1.2 gallon per minute 17 aerators and faucets for their faucet models, as this 18 flow rate was not commonly made among existing 19 residential faucet models, and this process would take 20 them past January 1st.

21 Staff's investigation confirmed that few 22 models currently exist in the residential lavatory 23 faucet realm that are 1.2 gallons per minute or less; 24 that the major aerator manufacturer, Neil Pearl, would 25 not be able to ship sufficient quantity and variety of

1.2 gallon per minute aerators to meet the January 1st
 effective date; and that certification is, indeed, a
 complex process.

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5 In order to discuss our findings on 6 residential lavatory faucets and present our potential 7 opportunities for savings on showerheads, the lead 8 Commissioner for efficiency led a workshop on July 9 28th to vet potential standards for showerheads and 10 the potential changes for faucets.

11 The Commission accepted comments following the workshop on the staff proposal as well as other 12 13 suggestions presented at the workshop. The comments 14 expressed widespread support for the proposed 15 amendments to the faucet standards that we presented there. And for showerhead standards we received 16 comments supporting the move to 2.0 gallons per minute 17 18 and comments supporting tiered standards. Although there was some disagreement at the workshop about the 19 20 appropriate efficiency date for showerheads.

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Next slide.

Today we propose tiered standards for both showerheads and residential lavatory faucets. For showerheads, as shown on this slide, Tier 1 would go into effect on July 1st, 2016, and would set a maximum

1 flow rate of 2.0 gallons per minute.

2 Tier 2 would go into effect two years later 3 on July 1st, 2018, and would set a maximum flow rate of 1.8 gallons per minute. This standard also includes 4 5 minimum flow rates to ensure consumer satisfaction and to mitigate concerns about thermal shock. 6 7 Next slide, please. For residential lavatory faucets, Tier 1 8 would go into effect on September 1st, 2015, about two 9 weeks away, and would set a maximum flow rate of 1.5 10 gallons per minute. 11 12 Tier 2 would go into effect on July 1st, 13 2016, and set a maximum flow rate of 1.2 gallons per 14 minute. 15 For both the showerhead and faucet standards, 16 these are based on the data manufacturer allowing retailers to sell through existing stock. 17 18 Next slide. 19 These combined standards will result in 20 savings of 154 billion gallons of water after full 21 stock turnover. The new showerhead standards alone 22 will save 38 billion gallons of water after the Tier 2 23 stock turnover. 24 Because showerheads use hot water, these 25 standards will also save 202 million therms of natural

1 gas and more than 1300 gigawatt hours of electricity, 2 for a total dollar savings to consumers of \$702 3 million.

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5 These standards are both cost effective and 6 technically feasible. The incremental difference in 7 price between a noncompliant showerhead and a 8 compliant showerhead is zero dollars, which means that 9 for no added cost the consumer achieves all of the 10 savings of these standards.

11 Staff research also shows that 31 percent of 12 showerhead models currently in our database meet the 13 Tier 1 standard. The Tier 1 standards align well with 14 existing Building Code and water sense standards, and 15 which are also set at 2.0 gallons per minute.

Finally, the plumbing manufacturers have confirmed that there will be sufficient inventory to meet the tiered standards for both showerheads and residential lavatory faucets.

20 Next slide.

Therefore, we recommend that the Commission approve Item No. 6, which will provide immediate savings through the adoption of a 1.6 gallons per minute standard for residential lavatory faucets, ensure faucet availability for consumers on January

1st, and save 154 billion gallons of water through 1 2 combined water savings over the next ten years. 3 I'm happy to answer any questions. 4 CHAIRMAN WEISENMILLER: Thank you. Public 5 comment. Let's start with Jerry Desmond, PMI. 6 MR. DESMOND: Chair and members, Jerry 7 Desmond on behalf of Plumbing Manufacturers 8 International. I really appreciate the effort and 9 endeavor that's taken place since the Governor's 10 Executive Order of April 1st. I know PMI embraces and 11 endorses the challenges ahead to save water, both immediately for the current drought and in the long 12 13 term, and our manufacturer members are endeavoring to 14 meet those emergency regulations that were adopted on 15 April 8th and set forth some precedent setting

16 standards.

We concur with the staff analysis and the statements made in terms of the tier proposal as well as the change to manufacturing date.

We do note that the regulatory proposal before us today -- before the Commission today augments the regulations by bringing showerheads in, and then also augments the residential lavatory faucet standard by establishing a tier today and then a tier July 1 next year.

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We've been in consultation with the aerator manufacturers, the retailers and distributors, but mostly our members, the plumbing manufacturers, to make sure that we can endeavor to meet those goals. And as we stand before you today we're prepared to express our support for the regulatory proposal as it's set forth in the recommendation.

8 Thank you.

9 CHAIRMAN WEISENMILLER: Thank you.

10 Meg Waltner.

MS. WALTNER: Meg Waltner from NRDC, good morning Commissioners.

13 NRDC supports the staff recommendation for a 14 two tiered standard for showerheads. The quantity and 15 variety of high efficiency showerheads available for 16 sale today indicate that qualifying products are 17 technically feasible and readily available in 18 California.

The potential water and energy savings from the proposed standards are tremendous. Annual water savings will be equivalent to more than the amount of water used in all of California in one day, and the CEC staff estimate that utility bill savings from the showerhead standard will be on the order of \$440 million per year after implementation.

1 The CEC staff recommendations for showerheads 2 are achievable, and given the current drought are 3 prudent, and I urge the Commission to adopt them as 4 recommended by staff today.

5 On the faucet proposals we continue to 6 support the updates standards for faucets. While the 7 two tier levels could be achievable sooner, we support 8 the staff proposal.

9 Thank you.

10 CHAIRMAN WEISENMILLER: Thank you.

11 David Farley.

MR. FARLEY: Good morning. My name's David Farley, I'm President and CEO of Sprite Industries, a 42-year-old California manufacturer of filtered showers and filtered water products, including filtered showerheads.

I'm here today to request that filtered showerheads be exempt from the proposed minimum flow rate requirements of 1.5 gallons per minute at 45 psi, and the 1.2 at 20 psi.

21 Shower filters remove chlorine, dirt, 22 sediment, and odors from the contaminants from the 23 shower water. Fifty percent of daily chlorine exposure 24 results from the shower. It's equal to all the water 25 you drink throughout the entire day.

A shower filter is used by those who are sensitive or allergic to chlorine exposure, and for those who drink filtered bottled water for anyone that cares to shower in filtered water.

5 We support the Commission's water 6 conservation effort to reduce the maximum flow rate of 7 the showerhead to 2 gallons per minute. The issue we 8 have is with the secondary minimum flow rate 9 requirements.

Pressure and flow rate characteristics of a nonfiltered showerhead and a filtered showerhead are very different, and if I may.

13 Basically, three mechanisms in a nonfiltered showerhead that determine maximum/minimum flow rates. 14 15 The flow regulator controls the maximum flow rate. The 16 combined flow reduction caused by the internal valve 17 mechanism and the orifice size and quantity of the 18 external spray nozzles establish the minimum flow 19 rate. This showerhead could satisfy the proposed 20 minimum flow requirements.

21 To filter the water, a consumer can add a 22 shower filter to the showerhead to filter the water. 23 The next step in shower filtration was to 24 design a showerhead with an internal filtration 25 system. Even though the filtered showerhead will have

the same maximum flow rate of 2 gallons per minute at 80 psi, as the nonfiltered showerheads, the minimum flow rate will be less at the same psi due to the addition of the filter cartridge, which has almost three-quarters of a pound of filtration media.

And just to show here what we're talking about. So we've got that additional material that creates -- that reduces the flow that's just inherent in the product.

10 Sprite currently manufacturers a water sense 11 certified filtered showerhead. However, we have issues 12 with the secondary minimum flow rate requirements as 13 they will impede the listing of most filtered 14 showerheads and restrict the development of future 15 shower filtration technologies to remove an even 16 higher level of contaminants from the shower water.

17 Therefore, I ask the Commission to allow 18 showerhead with internal filtration systems to 19 continue to be tested to the same standards as ASME 20 A112.18.1 for showerheads with a maximum flow rate of 21 2 gallons per minute at 80 psi.

22 Thank you for inviting me to speak on behalf 23 of my company and the shower filtration industry. 24 Please let me know if you have any questions. 25 CHAIRMAN WEISENMILLER: Okay, thank you.

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Moving on to David Gleiberman.

2 MR. GLEIBERMAN: Commissioners, thank you. 3 It's actually Daniel Gleiberman. I work for Sloan 4 Valve Company. We're also members of Plumbing 5 Manufacturers International. We're one of the world's 6 leading manufacturers of plumbing fixtures and 7 fittings for the commercial sector.

8 I've attended many of the workshops headed by 9 Commissioner McAllister, and I'm here today to thank 10 staff and the Commission for looking at the issues 11 that we've brought forward collectively. And we 12 support the changes as proposed, recognizing that 13 we're in a drought and that we all have to work 14 together.

As one manufacturer, we are certainly very willing and looking forward to being able to provide the kinds of products that still maintain customer satisfaction and performance but also save water.

And I'm available to answer any questions.Thank you.

21 CHAIRMAN WEISENMILLER: Thank you.
22 Charles Kim.
23 MR. KIM: Thank you, Chair. Commissioners,
24 and staff. I'm Charles Kim of Southern California

25 (inaudible) Company. I'm speaking on behalf of the

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1 California industry investor-owned utilities.

We are here to proudly and fully support what proposed on this water measure, that not just save energy but also address the California drought that we are facing right now, and this will going to bring a sensible, cost-effective, and technologically feasible solution to California.

8 And I would like to commend CEC staff to 9 bring a balanced point of view. That is, CEC is 10 willing to hear all stakeholders and re-examine their 11 thoughts in looking at the stock, looking at the 12 market, looking at all the technical data to propose 13 this sensible and well balanced proposal that you are 14 seeing today.

I once again want to take this moment to appreciate all the effort that has been taken by staff and furthermore, once again, we are here to fully support the what is proposed today.

I would like to take a moment to thank PG&E for leading the case development and leading other IUs to propose this particular measure called the showerhead.

Once again, this is a sensible solution, technically feasible, and cost-effective solution that saves water as well as the energy, and we are here to

1 fully support that topic as well.

2 Thank you so much staff and Commissioners. 3 CHAIRMAN WEISENMILLER: Thank you. 4 I believe no one else in the room but we have 5 a couple on the line. Go ahead, please. 6 MR. REYNOLDS: Good morning, Commissioners. 7 Aiden Reynolds on behalf of Sierra Club California. 8 Very quickly I just want to echo the comments made by 9 NRDC and make the Commission clear that Sierra Club California is in full support of adopting these 10 11 standards. Thank you. 12 CHAIRMAN WEISENMILLER: Thank you. 13 So now let's go to the line. One more, come 14 on. No blue cards. 15 MS. ANDERSON: Mary Anderson from Pacific Gas 16 and Electric. I'm here to echo Edison's comments. 17 We appreciate and commend the Commission's 18 efforts on the faucet and the lavatory standard. We appreciate all the forward thinking, the 19 20 thoughtfulness, and the quick movements that they have 21 been able to do, and we appreciate the process. 22 We are grateful for the energy savings and 23 the water savings that will happen as a result of 24 these thoughtful standards and we look forward to 25 continued collaboration with the CEC. Thank you.

1

CHAIRMAN WEISENMILLER: Thank you.

2 Anyone else in the room? So let's go on the 3 line. John Bertrand, Moen.

MR. BERTRAND: I was just listening in, I didn't have any further comment other than what's been already mentioned by Jerry Desmond and Danny Gleiberman, but again, we appreciate the Commission reviewing this and moving forward with the resolution. Thank you.

10 CHAIRMAN WEISENMILLER: Okay. And I think I 11 have potentially another PMI speaker on the line.

12 MALE VOICE: (inaudible) for PMI. Again, I 13 would just also like to echo what Jerry Desmond and 14 Danny Gleiberman have said.

15 I'd also like to echo how it's been honor to 16 work with CEC staff. I'd like to recognize Sean 17 Stethanson specifically. He has been very 18 instrumental in my opinion in working with industry 19 and I'm very grateful for that.

I'm also very appreciative of Commissioner McAllister and his willingness to listen on multiple occasions to the industry's concerns about the original rulemaking, and we're just very appreciative and supportive of what's going on today.

25 CHAIRMAN WEISENMILLER: Thank you.

So I was going to ask staff to comment on the
 filtered issue, filtered showerheads.

3

MS. DRISKELL: Thank you, Chair.

We received the comments on the filtered 4 5 showerheads relatively recently before this meeting, a couple days ago. The minimum flow rates that we are 6 7 proposing that you adopt today are consistent with 8 water sense and we think are necessary to ensure that 9 issues of thermal shock which have been raised but not 10 supported by evidence aren't ever supported by 11 evidence.

12 We also have -- I want to point out we've 13 adopted these as emergency regulations and we 14 understand that there may be some nuances to these 15 regulations that we need to address in the future. We 16 have a lot of time to do that and are willing to work 17 with stakeholders to ensure that everyone has a 18 satisfactory showering experience when these 19 showerheads go into effect in July.

20 CHAIRMAN WEISENMILLER: Thank you. If there's 21 no other comments we will now transition to 22 Commissioners discussion.

23 Commissioner McAllister, you want to lead 24 this?

25 COMMISSIONER MCALLISTER: Thanks, Kristen.

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1 Well, it's not that often that you hear a 2 call from industry saying, boy, we're really glad 3 you're accommodating to us, and then you have NRDC and 4 Sierra Club saying wonderful, great. Okay.

5 So I just want to point out that this is pretty huge, and really that's a reflection that there 6 7 is a tremendous amount of consensus in the state about 8 how grave the drought it and that we need to do 9 something important and relatively bold to address it, 10 and that this is really long term. As Kristen said, 11 it's emergency regulations but we all have the feeling that this is a long-term adjustment that we're making. 12

13 So again, the theme of getting it right and 14 listening to stakeholders and understanding the 15 marketplace in order to stage implementation. Not to 16 let back on the boldness of the proposal, but to get 17 it implementable in the most seamless and trauma free 18 way possible, that's really been the goal.

And so I appreciate PMI, your persistence in coming in and highlighting some of those issues to us and helping us understand.

I also really appreciate staff for keeping the pedal down and getting this done. I think it's an important thing that we're doing today, so I want to really just highlight this leadership.

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1 We're going to drive the market in 2 California, I think in important ways. It may have 3 federal implications eventually. But once 4 manufacturing processes get in line and crank these 5 products out, I think we're going to just have a huge 6 upside in terms of water and energy savings, so 7 obviously I'm very much supportive of this.

8 The creativity from all sides that's come to 9 this has been notable. The fact that we've staged in a way with tiers that we may not have before, that we've 10 11 looked at the effective dates in a way that really 12 interfaces well with the way products are sold and 13 produced and designed and warehoused and sold at 14 retail. I think it's really important that we 15 understand how that happens so that it's relatively 16 trauma free and that all the products are on the 17 shelves when they need to be on the shelves.

I personally feel like showers are -- I've lived in a lot of developing countries, okay, and I've showered in a lot of precarious situations -- I won't go into details, but I'll give a little flavor here.

You know, in many developing countries the way you get hot water is you actually put a 220 volt electric resistance heater on the end of the pipe, okay, right there, so these two wires coming out,

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often ungrounded, sometimes even bare, okay, not even insulated, coming out of the wall into the shower, and then when you turn on the water the pressure makes the plates come together and it goes "gggg" like this crackling sound to get hot water.

Even that is better than having to shower in 6 7 cold water, but I think it's a reflection of the fact 8 that hot water and hot showers is evidence of civilization, so obviously this is important to get 9 10 right and I really appreciate staff keeping all that 11 in mind in terms of the experience, the consumer, and the products that they have access to, it's really 12 13 important to have quality products.

So I think we've hit a balance here that works, and obviously we're going to work hard in an ongoing way with industry to make sure -- and all the stakeholders -- to make sure that we address any issues that come up along the way, which they may well do.

I want to make a few thank yous here. Certainly to industry, as I said, PMI, the manufacturers and the retailers, really all of the members that have come to talk with us have brought up good points and some insight, which we appreciate. The CASE teams have worked on the analysis in

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1 an interactive fashion with staff and all the

2 stakeholders to, I think, come up with a quite 3 credible analysis, which is really key for getting 4 there. So thank you to them.

5 And NRDC and Sierra Club have chimed in as 6 well and really helped enrich the discussion.

On staff, I want to echo many of the comments about how dedicated staff has been. And Kristen, your team has just been fantastic on this, and I want to highlight you and Ken Rider and Sean Stephenson, who is really doing a great job on this. Thank you very much.

And the other members of the appliances standards team, Tuan who has since retired but he did a lot of work on this stuff and so I want to acknowledge him.

And Harinder, who may not have worked directly on this but who took up slack while staff was working on it. So I think the whole team has contributed to the effort.

21 On legal, Mike Mirsa and Jared Babula, thanks 22 very much for all your work on this.

And Christine Collopy and David Ashuchian, who Dave's the lead in the Energy Efficiency Division and Christine is deputy, so they've really shepharded

1 this effort as well, so thank you very much to all of 2 you.

And then finally, my adviser Pat Saxton, who is really effective in herding the cats on many of these issues and helping highlight the important issues that we have to deal with, and I really appreciate his assistance here as well.

8 So with that, I think I'll pass to the rest 9 of the Commissioners.

CHAIRMAN WEISENMILLER: Commissioner
 Hochschild.

12 COMMISSIONER HOCHSCHILD: First of all, thank 13 you, Commissioner McAllister for all your work on this 14 and also for not going into too much detail on your 15 showers.

And by the way, it's just worth noting saving water is a good thing in and of itself, but saving hot water you're also saving energy, and it's just an important point with the showerheads in particular.

I did have a question. I remember getting a briefing a year ago or something from our efficiency staff on the life cycle of these different water appliances and learning that toilets have like a 30year expected life.

25 What is the life cycle of a showerhead in

1 California, do we know?

2 MS. DRISKELL: For purposes of our analysis 3 we assume ten years.

4 COMMISSIONER HOCHSCHILD: Ten years. Okay,5 that's good to know.

COMMISSIONER MCALLISTER: I actually want to 6 7 highlight just the fact of bringing in showerheads and 8 taking advantage of the opportunity, I think was a real good initiative, highly impactful initiative to 9 10 kind of, look, while we're at this we need to look at 11 all the opportunities and see how we might get to the 12 end result on showerheads, which were not initially 13 included in the emergency regs but were an area that 14 many stakeholders pointed out that there were savings 15 opportunities that we should consider going after.

16 So the fact that we took that on and did it 17 in a rapid turnaround kind of quick but effective way 18 I think really speaks well to even your staff, so 19 thank you.

MS. DRISKELL: If I may briefly correct myself. For the record, I mentioned that these were emergency regulations. They're actually regulations in response to an emergency Executive Order. They're not under the processes of the Administrative Procedure Act or under the Warren Alquist Act or the California

1 Environmental Quality Act; they've been exempted.

2 CHAIRMAN WEISENMILLER: Thank you. Now, two
3 things.

One was, again, just to reiterate that the drought is really amazing in how it's affecting all of California in major ways. Certainly the ring of fires now. So that it's gotten the message out that indeed California is a tinderbox and it's certainly challenging for all of us.

I think in terms of, what I would say is we adopted these regulations under the Executive Order very quickly. Certainly when issues came up we've made an adjustment.

Mr. Farley, as we go forward if we need to make a subsequent adjustment we certainly will do that, so I encourage you to work with the staff and Commissioner McAllister going forward.

18 I think but certainly now is the time to act, taking this next step, but it's also time to encourage 19 retailers to make it very easy for people to 20 21 differentiate between what's very efficient appliances 22 and which are inefficient appliances. There's going to 23 be a lot of marketing and that will certainly segue as 24 we get into the rebate program. You know, they've got 25 to be the front line to encourage people to come in,

go to the more efficient devices, get those and then 1 2 get the rebate, either from us or from other parties. 3 COMMISSIONER SCOTT: I would just say most 4 everything I wanted to say has already been said, but 5 I just wanted to also appreciate the flexibility, the nimbleness, the expertise of our staff and all of the 6 7 stakeholders who worked with us to help make this happen. You can't underscore enough how important 8 9 these water savings are for the state, so thank you 10 for your leadership. 11 COMMISSIONER MCALLISTER: All right. Well, I will move Item 6. 12 13 COMMISSIONER HOCHSCHILD: Second. 14 CHAIRMAN WEISENMILLER: All right. All those 15 in favor. 16 (Ayes.) CHAIRMAN WEISENMILLER: This item passes four 17 18 to zero. Thank you, Kristen. 19 COMMISSIONER MCALLISTER: Thanks, Kristen. 20 CHAIRMAN WEISENMILLER: Let's go on to Item 21 7, which is consideration and approval of the appliance rebate program. 22 23 Jack Bastida, please. 24 MR. BASTIDA: Good morning, Commissioners. My 25 name is Jack Bastida with the Local Assistance and

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Financing Office, Efficiency Division. I am presenting these guidelines for approval pending legislative approval of the Greenhouse Gas Reduction Fund. We are presenting these program guidelines so the rebate program may launch as soon as funding is available.

6 The Appliance Rebate Program guidelines were developed by staff in response to Governor Brown's 7 8 Executive Order B-29-15 Directive 4, which directed the Energy Commission to implement a time limited 9 10 statewide appliance rebate program to provide monetary 11 incentives for the replacement of inefficient household appliances as part of the statewide drought 12 13 response.

The Energy Commission has applied for funding for the rebate program from the Greenhouse Gas Reduction Fund created under Government Code Section 16428.8, administered by the Air Resources Board.

18 The rebate program administrator contract was 19 approved by the Commission at the July business 20 meeting. The guidelines before you today are to lay 21 out the program participation rules.

Energy Commission staff held public workshops on July 15th, 16th, and 17th in Fresno, Oakland, and Linwood, California, and received public input on the draft guidelines. The workshops were held with our

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sister agency, the Department of Water Resources, to
 also discuss their drought response related programs,
 a toilet rebate for the replacement of inefficient
 toilets, and a statewide turf replacement rebate.

5 DWR's rebate programs have a separate funding 6 source and they are launching their rebate program 7 soon.

8 The guidelines before you today cover Phase 1 9 of the Energy Commission's drought response under the 10 Executive Order. The proposed appliance rebate program 11 would offer a \$100 rebate for eligible clothes washers 12 on a first come-first served basis to residential 13 customers to incentivise the replacement of existing 14 inefficient clothes washers.

15 Clothes washers must meet the ENERGY STAR 16 compliant and listed in the energy appliance database 17 in order to qualify for the rebate.

18 The ENERGY STAR certification was selected as an efficiency standard of the rebate program based on 19 20 the prominence of ENERGY STAR brand in the marketplace 21 of providing customers with information on products 22 that save energy, save money, and help reduce GHG 23 emissions. ENERGY STAR's certified clothes washers use 24 about 25 percent less energy and 40 percent less water 25 than other washers, resulting in significant savings.

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1 And the ENERGY STAR criteria for clothes washers was 2 just updated on March 7th, 2015, resulting in greater 3 savings.

The rebate application will be available to be filled out online or mailed in by the consumer. The instant rebate will also be offered at participating big box retailers where consumers will receive an instant rebate at the point of sale. Clothes washers must be purchased within the rebate offer period to qualify.

11 Staff is working on Phase 2 of the Energy 12 Commission's drought response. We are working with the 13 Department of Community Services and Development and 14 the Department of Water Resources on a direct install 15 program to add water and energy saving appliances to 16 the existing low income weatherization program, 17 including clothes washers, dishwashers, kitchen and 18 lavatory faucets and showerheads. DWR is bringing 19 toilets to the direct install effort as well.

20 The direct install program will be 21 implemented for disadvantages communities defined by 22 CalEnviroScreen 2.0 throughout California.

The guidelines will be revised to include more information on the direct install program in fall 25 2015 and will be brought before a business meeting for

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1 approval at that time. For this first edition I 2 respectfully ask for your aye vote.

3 Thank you and I am happy to answer any4 questions you may have.

5 CHAIRMAN WEISENMILLER: Thank you. We have a6 couple of public comments, let's take those.

7 Kevin Messner.

8 MR. MESSNER: Thank you. Kevin Messner on 9 behalf of the Association of Home Appliance 10 Manufacturers.

11 Just wanted to say, first off, it's been good 12 to see this process. I am supportive of these 13 quidelines. With the hearings that we've had also 14 throughout the state, I think it's been good and I've 15 been hearing a lot from different viewpoints. I think 16 the overall and the drought right now that everybody's aware of, the appliance industry is very pleased to be 17 18 able to be part of the solution this time in providing 19 water savings.

You know, water is a precious life giving resource really and we need to save as much as we can and we're pleased that clothes washers and dishwashers are part of Phase 2 can be part of that.

24 One thing we'd like to continue working with 25 the Commission with and staff is the funding effort,

1 to get a little more clarity on how that would work 2 and what needs to be done.

And also, we'd like to keep working with the Commission on -- the guidelines are very simple, which are good. I mean, they're not filled with a lot of complexities that would confuse the consumer, which is good. That'll increase participation, increase water savings.

9 You do have a requirement for ENERGY STAR 10 compliant. We'd like to work with you on that. We 11 think eliminating that requirement would increase 12 water savings more. It also would increase the access 13 to the disadvantaged community and the poor by having 14 non-ENERGY STAR compliant clothes washers available to 15 them.

16 And I know you're sensitive to that with 17 Phase 2 and you're dealing with that as well, so not 18 criticizing that you're insensitive to that community at all, but I think by reducing the ENERGY STAR it 19 20 would create more value based clothes washers with the \$100 rebate where someone that does not have a lot of 21 22 money it would be more accessible of a program to 23 them.

24 But we're supportive of it. We'd like to 25 continue to work with the CEC on the ENERGY STAR part,

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but also the funding, want to get some clarity on exactly where that exists and who needs to go where and where it is, because right now I've talked to a lot of different people and just need kind of help to work together to try to figure out what needs to be done to trigger that and cut that loose as soon as possible to help this drought.

8 So Thank you and Thank you for all your work, 9 everyone on this.

10 CHAIRMAN WEISENMILLER: Thanks.

11 Meg Waltner.

MS. WALTNER: Meg Waltner with NRDC, thankyou.

We commend the Energy Commission for taking steps to encourage households to replace their inefficient clothes washers with new ENERGY STAR models and to reduce water in the drought crisis.

We support the appliance rebate program's specific focus on replacing inefficient clothes washers due to the significant water and energy savings possible with today's most efficient washers. The final program guidelines being discussed today are an improvement over the draft guidelines,

24 but additional changes can be made to maximize water 25 and energy savings.

1 Specifically, we recommend that only 2 households replacing an existing top loading washing 3 machine be eligible for the appliance rebate program. 4 These clothes washers are generally the least 5 efficient and there are more than four million in use 6 in California today.

7 While the final guidelines do require the 8 qualifying purchase replace an inefficient appliance 9 model, there is no definition of what this term means 10 in the guidelines.

11 Second, we recommend that proof of proper recycling be required. The final guidelines require 12 13 that eligible participants properly recycle their old 14 appliance. However, verifying documentation is not 15 required to be submitted as part of the rebate 16 application. This was a requirement under the state's 17 previous cash for appliances program under the federal 18 stimulus funding of purchases of more efficient 19 appliances and equipment.

20 Surveys suggest that more than half of old 21 working clothes washers are either sold or given away 22 and remain in use, so requiring proof of purchase of 23 recycling will ensure that units being replaced are 24 permanently removed from service.

25 Finally, we recommend that data is collected

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on the appliances being replaced, which can help support the establishment of more permanent clothes washer recycling programs by utilities and allow for more accurate accounting of the water and energy savings by the rebate program.

6 NRDC has been working to get energy and water 7 utilities to offer recycling programs for used clothes 8 washers and the lack of data has been a major 9 obstacle, so collecting this data would support those 10 efforts.

11 We look forward to continuing to work with 12 the CEC to save water during the drought and to better 13 position California to weather future drought events. 14 Thank you.

15 CHAIRMAN WEISENMILLER: Thank you.

16 Valerie Winn.

17 MS. WINN: Good morning, Commissioners. 18 Valerie Winn from Pacific Gas and Electric Company. 19 We wanted to offer our support for adoption 20 of this program. We have been working with CEC staff 21 talking about different concepts given our previous 22 experience in administering appliance rebate programs. 23 And we're very happy this is moving forward and look 24 forward in continuing to work with you on these 25 initiatives. Thank you.

1 CHAIRMAN WEISENMILLER: Thank you.

2 Anyone else in the room or on the line?
3 Staff, do you have any responses to the
4 comments we've gotten?

5 MR. BASTIDA: Sure. Staff looked at -- we 6 interviewed a lot of rebate administrators for this 7 rebate program, and when we were looking at the 8 qualifications for ENERGY STAR, we felt that ENERGY 9 STAR was the best qualification because of the 10 abundance in the marketplace.

When it comes to recycling olds clothes washers, we felt that adding an extra barrier to this program where the consumer might have to upload and figure out how to prove that they recycled a clothes washers might be too much of a barrier for some people.

So that's the recommendation of staff.
CHAIRMAN WEISENMILLER: What about specifying
the efficiency or inefficiency of the washer?

20 MR. BASTIDA: Yes, we are looking at adding 21 to the rebate administrator a drop-down menu that 22 would allow us to see what clothes washer they are 23 replacing so that we can correctly figure out the data 24 of how much water and energy we're saving.

25 CHAIRMAN WEISENMILLER: Thanks. Let me

1 transition to the Commissioners.

2 Commissioner McAllister.
3 COMMISSIONER MCALLISTER: Thanks very much,
4 Jack. Again, I think this is a really great
5 accomplishment. I mean, we've rolled this thing out,
6 we developed it really quickly.

7 I first want to acknowledge the staff that 8 was involved in this because I think, again, as almost 9 everything that comes before us, there's a huge amount 10 of work behind it and staff is really often unsung 11 heroes in this kind of thing.

12 This is a public facing program, a lot of 13 interface. We're hoping to really get the word out 14 quickly, and I want to talk about that in a minute, 15 but the key to making this a successful program is 16 having it designed well and having all the details be 17 well considered, and I think staff has done a great 18 job on getting this done quickly and effectively.

19 So Christine Collopy has sort of, I think, 20 spearheaded and cracked the whip a little bit on staff 21 on this and really kept the level of urgency and the 22 vision at the staff level clear and consistent and I 23 really appreciate that.

24 Marcia Smith is our program administration 25 guru on a number of fronts and really has brought a

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1

lot of expertise and knowledge to this.

2 Monte Berenstein has been a key staff member, 3 and Jack of course has as well. And Joji Castillo has 4 worked hard on this as well.

5 I also want to acknowledge, neglected to last time, but I want to acknowledge the Chair and the 6 7 Chair's office for keeping the level of urgency up on 8 these issues having to do with water. Obviously a 9 long-term commitment to energy efficiency but also 10 just the Governor's Executive Order and keeping at the 11 Commission aligned to do the best we can to put in place the responses to the Executive Order as quickly 12 13 as we can.

14 Wanted to just talk about the outreach. We're 15 going to be asking a lot of our outreach team, Al 16 Andina and Amber Beck on our media team are going to 17 play a significant role in this in rolling it out and 18 making sure that we get the word out so that anybody 19 everywhere in the state can participate.

Another point I think it's important to make is that, and it goes to some of the comments we got just now.

There is a panoply of water agencies out there in the state. A lot of them are complicated and the boundaries of them don't always align with

geography or with jurisdiction in other realms, and so they all have different programs, different approaches, they have different water sources, they have different costs. And therefore that landscape can be pretty complicated.

And coordinating with those efforts as well as with the state agencies that also have their initiatives, and with the utilities that also have their rebate programs, often you have these multiple programs overlapping.

11 And the discussion at the staff level and the stakeholders has been, well, what's the key pressure 12 13 point that this program, what's the gap that this 14 program could fill that's not already being filled by 15 another program in general? And it's hard to get a one-size-fits-all. I'd say it's impossible really that 16 17 totally fits every case, I don't think that's 18 possible. But as a statewide policy matter I think 19 that's the discussion that happened and I want to just 20 make that clear that exact alignment with all the 21 other programs out there wasn't necessarily the best 22 policy choice, so there's a gap to get a little bit 23 more hanging fruit or different fruit or where we can 24 target strategically the marketplace that already has 25 additional options. That was the conversation that

1 happened and that's where it ended up.

So we'll see what the uptake is and we'll see how well the coordination happens and what participants are able to also participate in other programs to get them over the hump in terms of their procurement of one of these efficient devices, so I wanted to just get a little bit more under the weeds there.

9 And yeah, obviously I'm very supportive of 10 this. I think it's a key step forward. I'm looking 11 forward to deepening our collaboration with the other 12 water agencies, and I think there's potential to 13 really set in place a long-term infrastructure that's 14 effective and really gets incentives out there in a 15 way that has low overhead, low transaction cost, but 16 that people are aware of and actually participate in. 17 It's really key to get that market transitioned over 18 to water efficiency.

So with that, I'll pass to the rest of the dais.

21 CHAIRMAN WEISENMILLER: Commissioner Scott. 22 COMMISSIONER SCOTT: Thank you. Thanks for 23 that really good presentation. I wanted to ask you, 24 and Commissioner McAllister mentioned it as well on 25 the outreach point. You mentioned in your talking

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points there will be an instant rebate at the point of sale, and I'm wondering if you have a couple examples you could share with all of us about how we will get the word out so that people know the program is available for the washing machines.

6 MR. BASTIDA: Thank you, Commissioner. Yes, I 7 brought a couple of examples here just of our media 8 department and our graphics department has put 9 together.

We are working really closely with Save Our Water, the Governor's initiative with DWR to have a coordinated campaign to try to make it as seamless as possible for everybody and that the two programs are connected for water savings. So we have Save Our Water is the main avenue we're using to get out the brand name of the program.

17 COMMISSIONER SCOTT: Thank you. I also wanted 18 to highlight it was good to hear from Mr. Messner during his comments about the positive feedback about 19 20 the hearings that we had around the state, and I also wanted to commend the staff and all the stakeholders 21 22 for again working well, having a great public process 23 to put again a very important component for helping 24 save water in California together.

25 COMMISSIONER MCALLISTER: And I actually left

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1 out a few staff that were involved, particularly 2 legal, Liz Flores and Mona Beatty, who have been 3 really key in getting the details right.

And then Ron Yasny and Davis Mason also, as well as Anne Fisher, who was the lead on the guidelines but couldn't be here today, so I wanted to just make sure that they got the recognition they're due, because this was truly a team effort and all the staff involved really knocked it out of the park on this.

11 So going forward a lot of details will come 12 up, but we really have a good foundation for this 13 program.

MR. BASTIDA: Commissioners, really fast, I just wanted to make one additional comment. That if there is a need to make additional nonsubstantial changes to the final appliance rebate program guidelines, that we would use that to correct typos and errors, formatting mistakes.

20 COMMISSIONER MCALLISTER: Thanks for that. 21 That's a great point. The guideline process makes life 22 a lot easier to go with the punches as we move forward 23 and learn by doing and get it right in an iterative 24 way, so thanks for that detail.

25 COMMISSIONER HOCHSCHILD: So one question and

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one point. Just to be crystal clear, a customer walk in to buy a new washing machine. They get that rebate right then when they make the purchase. Because when I've done that in the past, you know, ten years ago when I bought mine, I had to send it in and it was a long process.

7 MR. BASTIDA: Yeah. Right now the guidelines 8 are written so that that is a possibility. We're still 9 working out the details with our rebate administrator, 10 but what they have to do is enter into an agreement 11 with the big box retailers to be part of their point of sale system, and all the big box retailers point of 12 13 sale systems are different, so that's a challenge for 14 our rebate administrator to partake, but we're 15 confident that we would be able to provide some 16 information at the point of sale and show them our 17 terms and conditions before they got the rebate, but 18 they would get it right at the point of sale.

19 COMMISSIONER HOCHSCHILD: Right. I think my 20 view, you know, the more upstream we go, the more 21 friction free you make it, the better. I mean, when 22 you buy an LED light at Home Depot today, that subsidy 23 is embedded in the cost. The customer doesn't even 24 know they're getting it; it's just cheaper and it 25 works.

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So I'm real excited about this program, very 1 2 gratified we're moving ahead so swiftly with it. And 3 the point I want to make is if you go back to the energy crisis in 2001, you know, a big part of the 4 5 state's response was this Flex your Power campaign, which was a really robust statewide campaign and 6 raised awareness. You know, that was a crisis driven 7 8 by market manipulation. We really didn't have 9 blackouts after that.

10 The drought is a much more urgent and much more serious problem in my view because it's 11 potentially quite long lasting. And there is a 12 13 scenario in which the drought is the new normal and it 14 gets interrupted only by periods of what used to be 15 normal weather. And so just building up to this point 16 of urgency and outreach is critical, so thank you for your work and Thank you, Commissioner, for leading 17 18 that effort.

19 COMMISSIONER MCALLISTER: Thanks. 20 I wanted to just say also there's -- and I'm 21 not sure it's totally clear here, but the 22 implementation of this program, the rebate money 23 itself actually needs to be authorized by the 24 Legislature. So to your point, really, sort of 25 necessarily as a response to the Executive Order, the

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1 emergency order, we've pushed this forward.

We've got the guidelines in place and we're sort of raring to go at the gate so that when the money comes in we can pull the trigger and start this thing.

But after that, additional allocations to keep the rebate program going in future years would be forthcoming in those years until if and when there's a structural funding of the program.

10 So we're sort of striking a balance right now with a shorter term vision that's necessitated by the 11 funding sources, but acknowledging that we're building 12 13 a foundation that could be expanded to more devices, 14 that could take in more funds, that could really do a 15 lot more if given the opportunity, so we're at that moment where we're kicking off, but there's a lot of 16 potential there if and when the Legislature sees fit 17 18 to make that happen.

19 CHAIRMAN WEISENMILLER: Yeah, I was going to20 say just a couple cleanup items.

First of all, yeah, the whole program is dependent upon the Legislature, and the Legislature when it moves forward might modify this in a way which will cause us to modify the guidelines.

25 I've gotten some emails from people saying

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1 I've gone out and bought these efficient appliances, 2 where's my check? And it's like, well, there's nothing 3 now, you know, it's coming.

Anyway, so just to be very clear, this is all contingent on legislative action, and that legislative action may cause changes to the guidelines but we wanted to anticipate or be ready to move quickly if indeed they adopt consistent with what we're proposing now. That's number one.

10 Number two, I think as Commissioner Hochschild pointed out, yeah, it is really serious. I 11 think last time I did an event with Felicia Marcus for 12 13 the Legislature, she was very careful to try to get 14 the message across to people was that the 25 percent 15 savings is not so we can slush water around among different uses now. It's so that -- you know, our 16 17 basic planning assumption is the drought will continue 18 next year. We're obviously hoping for the best but planning for the worst. And in that situation the 25 19 20 percent water you save this year could be the basis 21 for having any water next year.

You know, we're looking at Brazil where they did not take the necessary actions and they're just cutting off water to cities.

25 So again, this is the definite message is

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1 that it's not 25 percent for almonds but it's 25
2 percent as your basically hedge for next year, and so
3 it's very important.

A couple other things I was going to say just to be specific was, as Commissioner McAllister indicated, my office has really been on point pushing the water stuff along.

8 Particularly Kevin Barker has been the one. 9 You know, when we got the assignment, his 10 responsibility was to make this happen, and he's done 11 a great job on that.

I think in terms of other things I'd point to that I think are important was that, again, background diversity. It was very good that we have designed a program to really help disadvantaged communities as part of this.

I would also point to on diversity that -again, I don't know necessarily how many people go online to the Internet, but we have information on this program and the (inaudible) program in five or six languages. So the idea was to really cover all Californians.

And I think there was a question from one of you about the ad part. Well, if the Legislature acts, this will be funded by GGRF. GGRF funds cannot be used

for advertising. However, because of our cooperation with DWR where they have SB1 funds which can be used, and indeed this is embedded in complementing some of their existing programs, we can do an ad campaign.

5 When we announce that on the first day this 6 campaign there were so many questions I got on making 7 sure that we really made this accessible to all of our 8 citizens, and so I think that ad campaign is going to 9 be important for that outreach. But we've really tried 10 to build in both disadvantaged and diversity from the 11 start on this program.

12 COMMISSIONER MCALLISTER: At the end of the 13 day, the funding that we have in the tens of millions 14 of dollars range isn't enough to really do everything 15 that needs to be done, and so having that split 16 between the initial program, which is accessible to 17 everybody but has a narrow set of coverage in terms of 18 appliances, and then a Tier 2 that'll be a little more 19 complex and the implementation certainly is more 20 complex that target specific areas and disadvantaged 21 communities but covers more devices, I think is a 22 really good balance that we struck to start out. 23 And that'll take a little more work and

24 obviously coordination with CSD and other agencies 25 will add some complexity to that, but I have a lot of

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1 confidence we're going to get that right and that 2 we're building a really solid foundation to take in 3 more funds and do more, as much as we can.

And I'll also note that the media team here has been really driving a lot of that, even though not necessarily completely, you know, their job, they've really taken ownership of it and led the other agencies in terms of producing the materials for the programs and I really am indebted to them as well. Okay. Then I'll move Item 7.

11 COMMISSIONER SCOTT: Second.

12 CHAIRMAN WEISENMILLER: All those in favor.13 (Ayes.)

14 CHAIRMAN WEISENMILLER: This item passes four 15 to zero. Thank you.

16 Let's go on to Item 8, State of Washington
17 Department of Commerce. This is Erik Jensen, please.

18 MR. JENSEN: Good morning Commissioners. My name is Erik Jensen. I'm in the Efficiency Division's 19 Existing Buildings Unit, and I'm here today to present 20 21 a resolution approving an agreement with the State of 22 Washington Department of Commerce to receive \$81,200 23 to development benchmarking and disclosure policy and 24 outreach documents and implement programs in 25 cooperation with the other members of the Pacific

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Coast Collaborative. The PCC consists of California,
 Oregon, Washington, and British Columbia.

In December 2014 Washington state received an award of \$450,200 from the U.S. Department of Energy to be shared with California and Oregon for this purpose, so Washington is the prime recipient and California and Oregon are subrecipients.

8 And I can take any questions that you have at 9 this time.

10 CHAIRMAN WEISENMILLER: Thank you. No blue 11 cards on this item.

12 COMMISSIONER MCALLISTER: Yeah, a little more 13 context. I think all of the Commissioners are aware of 14 the Pacific Coast Collaborative. The idea is to align 15 west coast policy and ideas and share what each of the 16 states is doing with the others.

17 This actually came about by an initiative 18 pushed largely by Washington, who was the primary applicant, but we all talked about, okay, should we 19 submit a proposal to the DOE, to the federal 20 21 government for getting some funds to do -- to do what? 22 And our idea was that benchmarking was the most 23 relevant thing for us, and the other states are also 24 trying to do some benchmarking, non-residential 25 benchmarking.

1 So this was kind of a furious effort to get 2 that application together and it was submitted and 3 Washington won, and so now this is the result of that. 4 We're getting a little bit of funding to do some 5 creative work with our sister agency the PUC and 6 develop some of the underlying benchmarking thoughts 7 and ideas and designs.

8 So I want to thank staff, Erik and the other 9 staff who worked on this, but particularly also my 10 adviser Hazel Miranda, who really kind of collected 11 all the materials and made sure that we got in and got 12 the application submitted.

And it's a good reason to coordinate with our sister states and certainly PCC also includes Canada. We have a lot in common and it really behooves us all to work well and learn from each other so we're not reinventing the wheel. This is a way that we can help do that.

19 So I'll move Item 8.

20 COMMISSIONER HOCHSCHILD: Second.

21 CHAIRMAN WEISENMILLER: All those in favor.

22 (Ayes.)

23 CHAIRMAN WEISENMILLER: Item 8 passes four to 24 zero. Thank you.

25 Let's go on to Item 9, City of Santa Cruz.

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1 Monica Rudman, please.

MS. RUDMAN: Good morning, Mr. Chairman and Commissioners. I'm Monica Rudman with the Local Assistance and Financing Office of the Efficiency Division. I'm here to request your approval for \$1,788,433 ECAA loan at one percent to the City of Santa Cruz.

8 The City of Santa Cruz will use this loan to 9 install more efficient interior lights, exterior 10 lights, streetlights, heating, ventilation, and air 11 conditioning equipment and motors at thirteen city buildings and facilities in various streets. When the 12 13 project is completed the annual electricity savings 14 will be over 749,000 kilowatt hours, and annual 15 natural gas savings will be about 12,000 therms.

16 This will reduce greenhouse gas emissions by 17 an estimated 329 tons every year. The City of Santa 18 Cruz will save approximately \$127,000 in utility costs 19 each year.

20 Based on the loan amount, the simple payback 21 is 14.1 years.

The loan request fulfills the requirements of the ECAA Loan Program. I therefore recommend and request your approval of this loan.

25 I'm happy to answer any of your questions.

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1 Thank you.

2 CHAIRMAN WEISENMILLER: Thank you. I assume 3 there's no public comment. 4 MS. RUDMAN: I do believe, yeah, Andrew 5 (inaudible) from the City of Santa Cruz is here. 6 CHAIRMAN WEISENMILLER: Great, perfect. 7 Please come up. 8 Thank you, Commissioners. My mayor, ANDREW: 9 council, and city manager wanted to express their 10 gratitude for you considering this application. 11 The city's been environmental steward for many years. We've taken on a multitude of energy 12 13 efficiency projects, and this application will allow 14 us to backfill the funding gap for many more. 15 We have a very aggressive climate action plan 16 and we have an ambitious goal to reduce greenhouse gasses and energy efficiency, and by approving this 17 18 application it will really help us drive that measure, 19 and we appreciate your support. 20 Thank you. 21 CHAIRMAN WEISENMILLER: Thank you. Thanks for 22 being here. 23 Commissioners, any questions or comments? 24 COMMISSIONER SCOTT: I'll move approval of 25 Item 9.

1

COMMISSIONER HOCHSCHILD: Second.

2 COMMISSIONER MCALLISTER: I actually did want3 to make a quick comment.

4

COMMISSIONER SCOTT: Sorry.

5 COMMISSIONER MCALLISTER: Sorry. So I want to 6 thank the ECAA staff. They're doing a great job, so 7 thanks Monica and the rest of the staff working on it.

8 And also just point out that as of now the 9 ECAA program is oversubscribed and we have a queue and 10 we have evaluations going on. It's clearly a popular program, it's got a lot of uptake in the market. I 11 guess one percent interest could explain part of that, 12 but there's a lot of need out there for financing of 13 14 cost effective energy projects. Energy efficiency and 15 renewables.

So we have a queue, and as we receive payments we'll be able to process those additional applications and get additional loans out. So I just wanted to point out that, again, we all know what a great program it is, but there's a big demand out there that we could continue to satisfy with the resources as they come in.

23 COMMISSIONER HOCHSCHILD: One thing I'd add, 24 you know, when I see a payback time of fourteen years, 25 you know, a lot of people say that's a long time. I

1 think it's great.

2 This is not actually the -- some of this 3 stuff is not the super fast payback low hanging fruit. 4 This is exactly one of the advantages we can support 5 that.

6 COMMISSIONER MCALLISTER: That's best 7 practice. When you do life cycle costing, you want it 8 to be a positive payback, you know, and you want it to 9 be within the lifetime of the measure, and that's the 10 way the program is designed to guarantee that that 11 happens.

12 There's just way more possibility, way more 13 opportunity for those sorts of projects than anybody 14 has funding really, not just us.

15 COMMISSIONER HOCHSCHILD: I was born in Santa 16 Cruz, actually. My mom used to teach at UC Santa Cruz, 17 and it's actually great to see the city's been a real 18 leader on clean energy and efficiency, so keep up the 19 good work.

20 CHAIRMAN WEISENMILLER: I should acknowledge 21 the leadership of the former mayor, John Lehrer.

22 COMMISSIONER HOCHSCHILD: Yeah, John Lehrer,23 exactly.

24 COMMISSIONER SCOTT: Okay. I'll move25 approval of Item 9.

1

COMMISSIONER HOCHSCHILD: Second.

2 CHAIRMAN WEISENMILLER: All those in favor.

3 (Ayes.)

4 CHAIRMAN WEISENMILLER: This item passes four 5 to Zero.

6 Let's go on to Item No. 10, Montague7 Elementary School District. Haile, please.

8 MR. BUCANEG: Good morning Commissioners. My 9 name is Haile Bucaneg and I am with the Local 10 Assistance and Financing Office.

11 The Montague Elementary School District is 12 requesting a \$419,520 loan at a zero percent interest 13 rate through the California Energy Commission ECAA and 14 loan program to install a number of energy efficiency 15 and renewable energy measures at Montague Elementary 16 School campus.

Energy efficiency measures to be installed at the campus include interior and exterior lighting, heating, ventilation, and cooling equipment and controls, and a photovoltaic system.

Interior lighting measures consist of retrofitting existing T12 lamps, first generation T8 lamps, and incandescent exit signs to more efficient T8 and LED lamps.

25 Exterior lighting measures will consist of

1 upgrading various exterior lamps to LED lamps.

2 HVAC energy efficiency measures consist of 3 replacing several furnaces and upgrading existing 4 manual thermostats at the site with programmable 5 thermostats.

Finally, a 40 kilowatt photovoltaic systemwill be installed at the site.

8 Implementing the proposed measures will save 9 the district approximately 142,000 kilowatt hours in 10 electricity and 800 gallons in propane. This 11 represents an annual energy cost savings of \$21,300 12 and a payback of 19.7 years on the loan amount.

In addition to the Energy Commission's zero percent interest loan, the District is also applying for a solar rebate through Pacific Powers California Solar incentive, and a grant through the Energy Commission's Proposition 39 program.

18 I'm available for questions.

19 CHAIRMAN WEISENMILLER: Thank you.

20 Any public comment? Commissioners, any 21 questions or comments?

22 COMMISSIONER MCALLISTER: Really sort of I'll 23 just go ditto to my last one and thank staff. But the 24 ECAA-Ed is a slightly different flavor of the loans. 25 And again, in the ECAA-Ed pot we're balancing the

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incoming applications with available funds and they're right about balanced right now, so we have a queue that roughly equals the funds that are available, so obviously a lot of demand for that one too.

5 And it's great to see the local government 6 taking all advantage of all the programs that are 7 available because that's just smart on their part. And 8 so this is one.

9 And it's also great to hear that the Pacific 10 Power program is up and running and giving out 11 rebates, because that was a gap back in the day when 12 the CSI first started and it's good to see some of 13 those smaller utilities in the state getting aboard 14 that.

15 So I'm supportive, and if there's no other 16 comments, I'll move Item 10.

17 COMMISSIONER SCOTT: Second. Oh, sorry.
18 CHAIRMAN WEISENMILLER: All those in favor.
19 (Ayes.)

20 CHAIRMAN WEISENMILLER: Item 10 passes four 21 to zero. Thanks.

22 MR. BUCANEG: Thank you.

23 CHAIRMAN WEISENMILLER: Let's go on to Item
24 11, hearing and possible readoption of emergency
25 regulations and findings and modification of

1 alternative and renewable fuel and vehicle technology
2 program regulations.

3

Tim Olson, please.

MR. OLSON: Thank you, Commissioners. Staff today is seeking approval of two actions to modify a regulation, Section 3103 of Title 20, California Code of Regulations. That provides guidance to expend funds under the alternative and renewable fuel vehicle technology program. We refer to it as the ARFET, A-R-F-E-T Program.

11 The main purpose of ARFET is to reduce 12 greenhouse gas emissions and petroleum dependence by 13 stimulating the growth of alternative fuels in 14 California.

Originally Section 3103 required companies that receive ARFET funds to discount carbon credits from programs to reduce greenhouse gas emissions, such as the California low carb and fuel standard, commensurate with the value of the ARFET funding received by the California projects.

21 On February 25th, 2015, the Energy Commission 22 adopted an emergency regulation to eliminate this 23 requirement because 19 funding recipients provided 24 documentation verifying that their projects, their 25 companies were placed in immediate economic harm,

noting the value of the credits are substantial
 sources of revenue which if lost affect business
 operations or possible decisions to close plants.

From that point we also concluded, staff concluded that as more ARFET projects come online and seek LCFS credits that all the projects face similar risks.

8 You have in your packet a memo from Galen 9 Lemei, our staff attorney, describing the relationship 10 of the emergency regulation and the confirming 11 regulation before you. I'm just going to kind of 12 quickly describe that.

On March 12th, 2015, the Office of Administrative Law approved the emergency regulation which has a limited lifespan of 180 days. And if we wanted to eliminate that credit discounting requirement permanently we'd have to adopt a confirming regulation, and that's what we're proposing here too.

20 So Item 11a is a proposed action to readopt 21 the emergency regulation that expires on September 22 9th, 2015, and extend the emergency timeframe 90 days. 23 Item 11b is a proposed action to approve the 24 permanent confirming regulation and extension of the 25 emergency regulation allows time to complete the full

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1 rulemaking process to adopt the regulation on a
2 permanent basis.

So some of the background.

3

It appears that biofuel and biomethane production plants face the greatest risk of adverse economic impact. Several companies submitted letters and comments in our February 25th business meeting verifying that economic harm.

Many of those projects are located in 9 10 economically disadvantaged communities in the San 11 Joaquin/Sacramento Valleys, which would lose employment and tax revenue from those impacted 12 13 projects. Further staff analysis, as I noted, 14 concluded that additional projects, primarily 15 alternative fuel infrastructure, were also at risk of 16 economic harm.

17 Since the initiation of the ARFET program 18 several factors related to biofuels and biomethane 19 have changed, compelling us to revisit and revise 20 existing 3103 regulation. Costs of biofuel and 21 biomethane production plants have increased.

Federal and state government incentives vary from year to year, creating investment uncertainty. And international and national market conditions have changed. Primarily the price of crude

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1 oil has dropped, that's a big factor.

As a result, the success of the California low carbon biofuel and biomethane projects requires both government financial incentives designed to support biofuel production, like the ARFET, and the full value of revenue from the LCFS credits. We are justifying both the emergency

8 regulation readoption and the confirming regulation 9 adoption as actions to eliminate economic harm faced 10 by these companies. This directly translates into 11 decreased availability of biofuel and biomethane and 12 other alternative fuels in the market; thus, 13 potentially impeding achievement of the state's 14 greenhouse gas emission reduction goals.

15 Two other factors helped justify the proposed 16 action.

No other state or local government agency
discounts credits for regulations to reduce greenhouse
gas or air pollutants related to grant funding.

20 Specifically, the California Air Resources 21 Board does not discount LCFS credits for grants 22 awarded under their air quality improvement program, 23 another funding program which is also funded under 24 AB8. And the ARB submitted a letter supporting our 25 proposed action during the emergency phase.

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Discounting of credits results in an unlevel 1 2 playing field for California projects, placing them in 3 economic disadvantage compared to imports of biofuel and biomethane from competing projects located in 4 5 other states and countries. Several Midwest states provide grants and other financial support to biofuel 6 7 and biomethane projects in their states but do not 8 discount LCF credits for low carbon fuel delivered to 9 California, or even the renewable fuel standard 10 credits for any biofuel or biomethane project. 11 It is worth noting that the proposed actions do not affect any other aspect of the ARFET 12 13 regulations, which remain the same as before. 14 Thank you for the consideration of these 15 items and we're available to respond to questions. 16 I'd also like to recognize Samantha Aarons, 17 Karen Holms, Alan Ward and Galen Lemei to help sort 18 out this final language and the supporting arguments for the regulation, and particularly Samantha for her 19

20 work in preparing the regulation package.

I'd also like to thank staff, including Elizabeth John, Bill Kenny, Pierre Duvair, Hugh Gwen, and Elise Jung-Sutton for their help on this.

24 CHAIRMAN WEISENMILLER: Great. I think we25 have one public comment.

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John Shears, are you on the line? 1 2 MR. SHEARS: Hello, can you hear me? 3 CHAIRMAN WEISENMILLER: Yes, we can. 4 MR. SHEARS: Yeah, John Shears. I'm just here 5 today to speak in support of extending and possibly permanent adoption of the changes, which given what we 6 7 understand from at the federal level with production 8 tax credits and investment tax credits in providing a 9 certain environment for potential investors in this 10 area, I recommend in fact a permanent adoption of 11 these changes rather than the 90-day adoption. 12 So as of February 25th I'm speaking in favor 13 of adopting these changes and recommend adopting the permanent changes. Thank you. 14 15 CHAIRMAN WEISENMILLER: Thank you. Anyone 16 else? 17 Okay. Commissioners, let's transition to our 18 discussion. Do you have questions or comments? 19 COMMISSIONER SCOTT: I have some comments for 20 you. 21 We talked about this during the February 22 business meeting when we adopted the emergency 23 regulation here, but I wanted to reiterate that I 24 think the team has been really thorough in putting 25 together the revised language and reaching out to get

1 input from interested stakeholders.

If you recall, we had about a dozen companies and environmental stakeholders who came in and spoke to us in support of the change. I believe we also had Floyd Vergara, right, from Air Resources Board was here to support the change as well.

7 I wanted to reiterate a couple of the points8 that Tim made.

9 The way that the original regulation language 10 was structured it would have put our California 11 companies at a competitive disadvantage, and it was 12 discouraging exactly what our program was intended to 13 encourage, right, which is for folks to get into this 14 market and start producing this fuel.

We worked carefully to coordinate with the Air Resources Board throughout the process to make sure that the language that we have appropriately lines up with the language in various Air Resources Board regulations.

I want to say Thank you very much to our team of folks who all worked really diligently on this.

And just to reiterate, what we're doing here is that the emergency regulation that we previously adopted in February lasts for 180 days. What we want to make sure that we do is not have that lapse while

we're waiting for our confirming regulation to come into place, so that's why we have the two actions; the extension of the emergency while we finish the confirming regulation.

5 And that's all I have on that. I mean, my 6 recommendation is that we approve both the readoption 7 of the emergency rulemaking and the permanent 8 confirming rulemaking.

9 I move approval of Item 11.

10 COMMISSIONER HOCHSCHILD: Second.

11 CHAIRMAN WEISENMILLER: All those in favor.

12 (Ayes.)

13 CHAIRMAN WEISENMILLER: This item passes four 14 to zero.

15 Thanks, Tim.

Let's go on to Item No. 12, South Coast Air 16 17 Quality Management District. Eric VanWinkle, please. 18 MR. VANWINKLE: Good morning Commissioners. My name is Eric VanWinkle and I'm a staff member in 19 20 the Emerging Fuels and Technologies Office in the 21 Fuels and Transportation Division. I'm here to ask for 22 your approval of a resolution for a proposed contract 23 with the South Coast Air Quality Management District 24 for their zero emission cargo transport demonstration 25 project.

This contract would be funded through the 1 2 Energy Commission's alternative and renewable fuel and 3 vehicle technology program. Energy Commission funds would be utilized to leverage \$10 million of federal 4 5 funding from the Department of Energy. The South Coast 6 Air Quality Management District and other project 7 partners will contribute an additional \$7.9 million to 8 fully fund the project.

9 The purpose of the project is to accelerate 10 the development and deployment of zero emission cargo 11 transport technologies along California's goods 12 movement corridors. Through this project the South 13 Coast Air Quality Management District project team 14 will develop, manufacture and deploy up to seven heavy 15 duty Class 8 fuel cell range extended electric and 16 hybrid electric drayage trucks. The demonstration of 17 these vehicles will occur over a two-year period of 18 time. The vehicles will be deployed in the ports of 19 Los Angeles and Long Beach and will travel along the 20 I-710 corridor to the near dock rail yards and 21 warehouses.

These vehicles will serve as demonstrations of viable transport options that will help to improve air quality, reduce petroleum consumption, and lower greenhouse gas emissions in the communities

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surrounding the ports and along the I-710 goods
 movement corridor.

The further development of zero emission medium and heavy duty vehicle technologies will be essential to improving the air quality, especially the poor air quality ranges impacting the disadvantaged communities located in nearby Southern California's major goods movement corridors.

9 This project will directly support the goals 10 laid out by Governor Brown through his recent 11 sustainable freight plan Executive Order establishing new emissions and petroleum reduction goals. This 12 13 Executive Order also directs the Energy Commission and 14 other state agencies to develop options that will 15 improve freight efficiency, transition the sector to zero emission technologies, while increasing the 16 17 economic competitiveness of California's freight 18 system.

19 This project will serve as a strong example 20 of California's leadership in developing a more 21 sustainable freight sector while supporting the 22 economic benefits that this sector brings to the 23 state.

And with that, I'd like to thank you for your consideration of this item, and I'm available for any

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1 questions you may have.

2 CHAIRMAN WEISENMILLER: Thank you. Any public 3 comment? Okay, let's then transition to Commissioners 4 in terms of questions or comments. Commissioner Scott. 5 COMMISSIONER SCOTT: I would just underscore what Eric said in his excellent presentation about 6 7 this project will help support some of the goals that 8 Governor Brown -- or help a demonstration project of 9 the goals laid out by Governor Brown in his recent 10 sustainable freight plan Executive Order, so it's an 11 exciting project, I think. 12 If you don't have questions I will move 13 approval of Item 12. 14 COMMISSIONER MCALLISTER: I'll second. 15 CHAIRMAN WEISENMILLER: All those in favor. 16 (Ayes.) 17 CHAIRMAN WEISENMILLER: This item passes four 18 to zero. Thank you. 19 Let's go on to Item 13, Concurrent 20 Technologies Corporation. Reynaldo Gonzalez, please. 21 MR. GONZALEZ: Good morning, Chair 22 Weisenmiller, Commissioners. My name is Rey Gonzalez 23 and I'm the technical staff lead for the 24 transportation research are in the Energy Generation 25 Research Office of the Energy Research and Development

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1 Division.

2 Staff is seeking approval of Amendment 1 to 3 the agreement with Concurrent Technologies Corporation 4 for \$1.2 million and a term extension of 18 months. 5 The initial contract award to Concurrent Technologies 6 Corporation was put in place and leveraged fifteen 7 million federal dollars from the Department of 8 Defense.

9 Since the initial award, the Department of10 Defense has augmented the project with \$1.5 million.

11 The Energy Commission is a key partner with the Department of Defense for their national program 12 to transform conventional fueled nontactical vehicles 13 14 to plug in electric vehicles. This VOD demonstration 15 is currently the first large scale working vehicle to 16 grid interconnection effort in the U.S., evaluating 17 the vehicle performing their normal functions while 18 also participating in the vehicle to grid services.

19 The host site for this project is the Los 20 Angeles Air Force Base, and it is the first of sic 21 national bases the DOD has selected for vehicle 22 replacement.

The demonstration and testing at L.A. Air Force Base is the single most important and largest project currently under way addressing the impacts of

vehicle to grid, impacts on the plug-in electrical vehicle battery, life, and warranty. And one of the largest potential plug-in electric vehicle cost reduction measures being evaluated.

5 Approximately 45 vehicles at the L.A. Air Force Base have been replaced with plug-in electric 6 7 vehicles. This includes sedans, vans, busses, pickups, 8 and utility vehicles. The Air Force is using these 9 vehicles for their normal duties while also participating in vehicle to grid services, to Southern 10 11 California Edison, and the California independent system operator. 12

One of the key goals of the DOD program is to demonstrate that the plug-in electric vehicle, nontactical vehicles that is, will meet the needs of the military, provide good benefits, and reduce the overall vehicle costs by participating in an ancillary services market and exploring the feasibility of battery second use opportunities.

20 Concurrent technologies corporation selected 21 through a DOD competitive solicitation and under 22 contract with the Energy Commission is producing data 23 to support the current and future vehicle to grid 24 strategies, and is developing a preliminary design for 25 the application of second life vehicle batteries as a

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1 stationary energy resource for California utilities.

A key part of the battery second life analysis is to determine a market value of the electric vehicle battery at the end of the normal electric vehicle use. Understanding the market value will drive second use opportunities, which will in turn help reduce the cost of the plug-in electric vehicle system.

9 Another unique element of the vehicle 10 demonstration is to conduct accelerated life testing 11 of the plug-in electric vehicle batteries to gain 12 knowledge on the life expectancy, impact on battery 13 performance and warranty, and the value of these 14 batteries at the end of their expected vehicle life.

15 There's a couple factors that drove the 16 contract amendment.

17 When the project was initially conceived, and 18 this was over four years ago, the DOD believed that the planning utility interface, vehicle to grid rate 19 20 structure and other key components were virtually ready for demonstration based on information that they 21 22 had determined by the electric vehicle industry and 23 electric vehicle researchers. These key elements were 24 not as mature as thought, and working through the 25 issues resulted in delays to the project.

1 To date all critical issues have been 2 resolved and it is expected that by the end of summer 3 all procured plug-in electric vehicles will be 4 participating in the ISO VDG services while data is 5 being collected.

6 Extending the project term will allow 7 sufficient time to collect the necessary data and 8 complete the desired analysis originally planned. In 9 addition, the project improvements have been 10 identified that greatly improve the value of the 11 demonstration and assessment.

12 Through the proposed amendment vehicles 13 participating in data collection will be expanded from 14 a small sample to the entire fleet.

While vehicle to grid is recognized as a great potential for grid stability, there is still a need to better understand the effects to the plug-in electric vehicle battery and understand the potential in changes to the end of life strategy as a result of the incremental battery charge and discharge cycles.

21 Without the proposed amendment, only minimal 22 data will be collected and there will be insufficient 23 field data available to develop a robust impact 24 assessment. The proposed funding expands the battery 25 second use assessment to allow for much longer data

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collection and a more complete accelerated battery
 life testing program.

Thank you for your consideration for this titem, and I can answer questions at this time.

5 CHAIRMAN WEISENMILLER: Thank you. Is there 6 any public comment on this? I guess actually we have 7 online we have at least two. Mr. Jensall from 8 Concurrent Technology.

9 MR. JENSALL: -- Executive Director for 10 Concurrent Technologies Corporation, the prime 11 contractor, and I am here to answer questions. Thank 12 you.

13 CHAIRMAN WEISENMILLER: Great. And I guess14 Mike Gravely is also on the line down in L.A.

MR. GRAVELY: Yes, sir, I'm here with the demonstration we just did with the Secretary of the Air Force, and I'm just here to answer any questions the Commissioners may have.

19 CHAIRMAN WEISENMILLER: Great, thank you. 20 Yeah, I think coincidentally the Secretary of the Air 21 Force is at the L.A. Air Force Base today. I don't 22 know if necessarily at this very moment, so we have 23 staff down there as part of this.

I mean, I think this is one of those examples of leading edge technology where it took three years

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1 to interconnect, and it took certainly a lot of 2 screaming by Nancy Ryan or myself to get there.

I think certainly since then a pretty good effort by Edison to figure out how in the future this could be done more expeditiously. But as with any innovative project, you can run into issues.

7 I think frankly a part of it was -- and when 8 you look at the tariffs, both ISO and PUC, that step 9 one it would say are you a load or are you a resource? 10 And for storage you would come to a dead stop at that 11 point as you tried to figure out which of the two applied. And other issues like that. And so once you 12 13 qot past that paragraph you would find two paragraphs later. So a bunch of issues. 14

But again, I think certainly there's been a heavy price paid to get this straightened out, and I think part of the time extension just came from the fact that the interconnection took so long. You know, it certainly requires going forward to extend this.

Now in addition we're certainly adding more data. I mean, obviously this type of vehicle to grid program has a lot of potential, particularly when we're looking at hopefully five or six million electric vehicles in '23. But in terms of real world experience, you know, we have maybe a vehicle back at

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PJM and this is something where you really have to come up with very standardized electronics and drive the cost down to have a chance for it to really work. COMMISSIONER HOCHSCHILD: I know you've raised that concern of the delay of interconnection a number of times before. What was worked out with Edison in terms of going forward?

8 CHAIRMAN WEISENMILLER: Well, I think the 9 basic aspects of it -- and there was a very good 10 letter from the Air Force on the issues they perceived 11 and a very good response from Edison on trying to 12 respond to that. But in particular, Edison put 13 together a team that really at a high level is 14 responsible for interconnecting innovative technology.

And part of it was, I think as we worked through the port mortem what the ISO requirements were relatively clear and maybe overly complicated but at least step by step as they went through those they were clear. Edison's tended to be more evolving, which presented issues.

And I think certainly the telemetry part is something where again we'd like to ultimately the notion was now we have a very clear process from ISO, they've cleaned up their tariffs.

25 Edison's going through a similar process.

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Actually, my office has been having monthly calls on interconnection issues ever since this fiasco, they try to keep driving things to simplicity. But at this point I think we have a pretty clear process alignment now understanding for both Edison and for the ISO. We've actually looped in PG&E in San Diego just to make sure that we don't have similar issues there.

8 And we're trying to figure out ways now to 9 simplify the telemetry and trying to see is there ways 10 we can consolidate between the ISO and Edison so that 11 you have exactly the same any data that can be 12 simplified and used for both is there.

13 So again, it's a lot of process improvements, 14 but I think part of the nature of these things are 15 that when you have innovative technologies the 16 existing processes you could be the square peg in a 17 round hole.

18 COMMISSIONER MCALLISTER: Is this contained 19 in Rule 21 at all, or where is this set of rules 20 located?

21 CHAIRMAN WEISENMILLER: Well, are you WDAT or 22 are you talking Rule 21.

COMMISSIONER MCALLISTER: Exactly.
 CHAIRMAN WEISENMILLER: You know, and in
 fact, this is not the classic example but there was

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one where Valerie looks up where basically Chevron was going through PG&E, marks through one of the two and then was told you picked the wrong one, or we sent you to the wrong one. Go back and start from scratch on the other interconnection process, which certainly was not well received by the applicant.

7 COMMISSIONER MCALLISTER: So I assume PUC is 8 involved in this back-and-forth?

9 CHAIRMAN WEISENMILLER: Oh, yeah. Sure. Yeah, 10 they've been very good on that too.

11 COMMISSIONER MCALLISTER: Great.

12 CHAIRMAN WEISENMILLER: Yeah. So any other? 13 Commissioner Scott, you want to talk a little bit 14 about our general efforts with the military on 15 electrifying transport?

16 COMMISSIONER SCOTT: Sure. And this is a 17 great project. I think it's fantastic, actually, that 18 the Secretary of the Air Force is there visiting it 19 today and Mike Gravely's there and Rhetta de Mesa, my 20 adviser, is there. And I think Kevin, is Kevin there 21 as well? Not sure, okay, to help celebrate the project 22 a little bit.

23 We had an opportunity to go with the PUC with 24 Southern California Edison, me, Wade Crowfoot from the 25 Governor's office, also some high level folks from the

Air Force when we first announced this project. And 1 2 it's really exciting to have the Department of Defense 3 take their nontactical vehicles and figure out what they can do with them in terms of alternatives, in 4 5 terms of can they turn them into battery electrics? Are they interested in fuel cells? Are they running 6 7 them on alternative and renewable fuels? So this is 8 one of many projects that we hope to continue have 9 going on with the Department of Defense.

10 A few weeks ago -- and I think I might have 11 mentioned this at the last business meeting -- the 12 Department of Navy was here having an industry day 13 because they are looking to transform up to 500 of 14 their nontactical vehicles on the naval bases and the 15 marine bases here in California to all battery 16 electric vehicles.

And they're looking to do that really quickly. The request for proposal is anticipated to come out in the fall, and they'd like to have those vehicles having replaced the internal combustion engines at the beginning of the year, so they're looking to move pretty quickly.

23 What's exciting about that is if you can make 24 it work at the Naval and Marine bases here in 25 California, you can make it work at the rest of the

services as well, and then you can expand that out 1 2 into the country, but they're really taking a great 3 step forward there and we've been working with them to 4 try to figure out how to make that happen. 5 So good stuff. If there are no other questions I will move approval of Item 13. 6 7 COMMISSIONER MCALLISTER: Second. CHAIRMAN WEISENMILLER: All those in favor. 8 9 (Ayes.) 10 CHAIRMAN WEISENMILLER: This item passes four 11 to zero. Thanks, Rey. 12 Thank you. MR. GONZALEZ: 13 CHAIRMAN WEISENMILLER: Let's go to Item 14 -14 - and thanks, Mike. Let's go on to Item No. 14, 15 California Community Colleges Chancellor's Office. 16 Dave Nichols, please. 17 MR. NICHOLS: Good morning, Commissioners. My 18 name is David Nichols and I'm here today representing the Zero Emission Vehicle Infrastructure Office, 19 20 formerly known as the Emerging Fuels and Technology Office. 21 22 We are requesting your approval for a 23 \$250,000 agreement with the California Community 24 Colleges Chancellor's Office to develop and implement

25 an alternative fuels workforce training apprenticeship

1 program.

2 An apprenticeship training program agreement 3 continues support for the alternative renewable fuels and vehicle technology program efforts through the 4 5 California community colleges. This agreement builds with ongoing support from our recent agreement that 6 7 ended with \$5.5 million used for train the trainers, 8 developing specialized curriculum, and acquiring 9 specialized equipment for advancing and growing the 10 clean transportation market. 11 The Chancellor's Office is currently expanding. They're doing what matters for jobs and the 12 13 economy program. A division of their workforce 14 economic and development efforts. 15 With their expanded federal and state funding 16 for apprenticeship training, our agreement will leverage additional support to increase our program's 17 18 efforts. 19 In addition, the Chancellor's Office 20 apprenticeship plan will specifically include efforts 21 to include in apprenticeship training both veterans 22 and those living in underserved communities. 23 We thank you for your consideration and trust 24 that you will adopt this, and I'm available to answer 25 any questions.

CHAIRMAN WEISENMILLER: Thank you. Any public
 comment? Okay, let's transition to Commissioners.
 Let's talk about this.

4 COMMISSIONER SCOTT: I think this one is an 5 exciting project as well as the one that's following. 6 It's just a great opportunity for us to -- this is a 7 nice component of the alternative and renewable fuel 8 and vehicle tech program where we have put a little 9 bit of the money in that portfolio toward training 10 people on the technologies and fuels that we're trying 11 to get out there.

12 So this program, we don't pay for all of 13 their training, all of the apprenticeships or things 14 like that, but you pay for the ability to take the 15 extra classes to work how to work on a battery electric vehicle, learn how to work on a range 16 17 extended hybrid dray truck. And so I think this is 18 just a terrific opportunity to have Californians who are interested in this type of technology learn how to 19 20 work on it and get involved in the field.

21 COMMISSIONER MCALLISTER: So you're saying 22 we're renaming the program what?

MR. NICHOLS: Zero Emission Vehicle and
 Infrastructure Office, ZEVIO.

25 COMMISSIONER MCALLISTER: Okay. Good.

MR. NICHOLS: I'm glad I got to make that announcement as the first person.

3 COMMISSIONER MCALLISTER: Is that not an
4 Internet startup or something? It sounds

5 COMMISSIONER SCOTT: I will move approval of 6 Item 14.

7 COMMISSIONER HOCHSCHILD: Second.

8 CHAIRMAN WEISENMILLER: All those in favor.

9 (Ayes.)

10 CHAIRMAN WEISENMILLER: This item also passes 11 four to zero. Great. Thanks.

12 Let's go on to Item 15, California Workforce13 Investment Board. And David Nichols again.

MR. NICHOLS: Thank you again, Commissioners.
I am here representing again the Zero Emission Vehicle
and Infrastructure Office.

We're requesting your approval for a \$250,000 agreement with the California Workforce Investment Boar to develop and implement an alternative fuels workforce training apprenticeship program.

The California Workforce Investment Board, which will soon be renamed themselves to the California Workforce Development Board, is a division of the Employment Development Department and were integral in the delivery of multiple tasks under our

1 current workforce agreement with EDD.

2 Staff has determined that there is an 3 opportunity through their specific programs to develop 4 and implement an alternative fuels workforce training 5 effort.

6 Similar to the Chancellor's Office plan, they 7 will focus on veteran participation and underserved 8 communities and will leverage funding from Prop 39 to 9 maximize the alternative renewable fuels and vehicle 10 technology program efforts to expand the number of 11 persons trained to serve the growing clean vehicle 12 market in California.

I thank you for your consideration, trust that you will pass this. If you have any questions I'll be happy to answer them.

16 CHAIRMAN WEISENMILLER: Thank you. Any public 17 comment? Then let's transition to Commissioners.

18 Commissioner Scott.

19 COMMISSIONER SCOTT: Same thoughts that I had 20 on the last one. So if there are no questions I will 21 move approval of Item 15.

22 COMMISSIONER HOCHSCHILD: Second.

23 CHAIRMAN WEISENMILLER: All those in favor.

24 (Ayes.)

25 CHAIRMAN WEISENMILLER: This passes four to

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1 zero. Thank you. 2 MR. NICHOLS: Thank you very much, 3 Commissioners. 4 CHAIRMAN WEISENMILLER: Let's go on to the 5 minutes of July 30th. 6 COMMISSIONER SCOTT: Move approval of the 7 minutes. 8 CHAIRMAN WEISENMILLER: Yeah, go ahead. And I 9 need a second. 10 COMMISSIONER HOCHSCHILD: Second. 11 CHAIRMAN WEISENMILLER: Okay. All those in 12 favor. 13 (Ayes.) 14 CHAIRMAN WEISENMILLER: All those abstaining? 15 COMMISSIONER MCALLISTER: Aye. 16 CHAIRMAN WEISENMILLER: So three to one. 17 Thank you. 18 Let's go on to lead Commissioner or presiding 19 member reports. 20 COMMISSIONER SCOTT: I just have one 21 highlight from when we met last, which wasn't so long 22 ago, and that is we're working with some of the ports 23 to try to put together a similar effort like the one 24 we're working on with the Department of Defense. And 25 this past Tuesday, August 4th, a few folks from the

Energy Commission, Rob and my adviser Rhetta, your 1 2 adviser Kevin, some great folks from the team, Mike 3 Gravely and Andre, went and talked about the different 4 type of programs that we have here at the Energy 5 Commission, like ARFETP, some of the EPIC and other R&D type of work. Some of the ECAA funding potentially 6 7 for lighting and public spaces at ports and things 8 like that.

9 And we were hosted graciously by the Port of 10 Long Beach, and we had the Port of Long Beach, the Port of Los Angeles, the Port of Hueneme, Port of San 11 Diego, and Port of Oakland that were there, and what 12 13 we asked them to do was to identify some projects that 14 they might want to work on together with us, things 15 that are of mutual interest, help us demonstrate how 16 the meet the Governor's sustainable freight goals, how 17 to meet our climate and clean air goals, how to help 18 make the ports more resilient in the face of climate 19 change.

And so it's just the initial conversation. We will continue. This was kind of like the kickoff conversation with everyone, but everyone seemed to me really enthusiastic to be there. They look forward to working in partnership with the Energy Commission. We definitely look forward to working in partnership with

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1 them.

One of the themes that we heard, I think from all of the ports is they have been working hard, as you all know, over the years with the clean air action plans at the ports to transition out the older dirtier diesels for newer cleaner trucks, and they feel like they've addressed a lot of the kind of lower hanging fruit, and so they're looking for new ideas.

What's the next thing that they need to work 9 10 on? It probably won't be quite as easy as -- maybe 11 easy is not the right word, but it's not the lower 12 hanging fruit, it's not the most obvious things, but 13 there are additional things that they can continue to 14 do to improve efficiency to build up their resiliency, 15 and of course, stay economically competitive in this 16 space. And so they're really thinking about those 17 types of ideas.

18 So I think that was a great meeting. I'll see 19 if, Rob, do you want to add anything to that?

20 MR. OGLESBY: Yeah, we're looking forward to 21 follow up, and I think it's very timely because it 22 does coordinate so well with the Governor's Executive 23 Order on freight.

24 COMMISSIONER SCOTT: And that's my only 25 update.

1

CHAIRMAN WEISENMILLER: Great.

2 COMMISSIONER MCALLISTER: Yeah, just a few
3 things.

I guess I just want to acknowledge staff for 4 5 all the work they've been doing on the 2016 standards and working on the compliance manuals and really just 6 7 moving all the nuts and bolts forward for 8 implementation. I think it's going really well and 9 very timely, which is great. A lot of good stakeholder 10 input. And really rolling forward nicely from 11 development of the standards to the ACM process.

12 Also, we heard a lot about standards today 13 and we voted on a couple of things, but the standards 14 team has just really been working at overdrive and I 15 think very effectively as well, and it's going to 16 produce a lot of energy and water savings, 17 electricity, natural gas, water. It's really great, so 18 I want to just again acknowledge.

Let's see. I guess the IEPR is the other main theme of my life. We've had a lot of workshops, some really substantive discussions, which is always great. I mean, I really enjoy getting the insight from our stakeholders and seeing them being engaged with us and taking time out of their schedules and coming in and really thinking about the topics that we're wrestling

with at the moment, and there are a number of them.
 All very, very interesting.

3 Some of the more traditional ones that we 4 know, you know, the forecast and all that kind of 5 stuff, which iteratively goes forward I think with new 6 issues and trying to develop more detailed analyses, 7 get better information to inform that analysis, just 8 always very, very important.

9 But I wanted to just highlight a couple 10 workshops that we had that were interesting.

11 On the 3rd of this month we had a really 12 interesting workshop on landscape scale environmental 13 evaluation for energy infrastructure. Focused more on 14 transmission planning, but really I think we heard 15 across the board that it was the approach that has 16 been developed in and around the DRECP has a lot of 17 relevance for other things that we're doing.

18 So Commissioner Scott was there, Commissioner Douglas, who's really been integral, really been 19 20 driving the DRECP process in many ways. And President Picker was there for that, the PUC for the first part 21 22 of that, the Governor's office was here, Ken Alex for 23 the majority, and also the California BLM office was 24 represented here as well. And the Chair's office, 25 Kevin was here. The Chair was in China, I believe.

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1 So it was a very robust discussion, really 2 good stuff. And I think the demonstration that staff 3 gave of the tools that have been developed to do GIS 4 based on locational analysis with lots of information 5 about different resources and parcels and all the 6 things that we know. GIS type work, geolocated data 7 can inform.

8 I think we all saw that there was a potential 9 to do a lot of additional analysis around the various 10 sectors that we work in, not just about (inaudible) 11 playing a large scale in renewables planning in the 12 desert but also about our built environment and our 13 transportation systems and other parts of the state's 14 resource base and infrastructure. So there's a lot of 15 potential there, I think, to learn from that, and 16 potentially leverage the data exchange infrastructure 17 that they've built to link into new and different 18 data.

19 So that's a topic I think is really ripe for 20 both design in our various initiatives in the 21 divisions but also research going forward to see how 22 that could be efficiently effectively incorporated 23 into the way we do business.

And I'll let the Chair talk about the Reti 25 2.0 initiative, which I think was a core part of that

1 discussion. That's very exciting as well and I think 2 much, much needed.

3 And the other interesting thing -- thanks for reminding me -- For me and I think all of us, but 4 5 certainly in the context of energy efficiency in our built environment, particularly our existing 6 7 buildings, but really across the board in our built 8 environment, the local jurisdictions are just key to 9 all this. And the beautiful thing about some of this analysis is it lets it be done at the local level. It 10 11 lets local entities use it, true it up, bring their expertise, tell us when something doesn't seem exactly 12 13 right, feed their own data into it and use it.

And we had a really great presence in the counties in that workshop and they brought a lot of creativity and just a lot of knowledge and I think it was just obvious that they own that local discussion and can be very productive representatives of state policy in their local communities.

And so these tools, these informational tools and analytical tools let them do that better, and it's just a terrific, terrific thing. So that partnership I think is key for a lot of things we do.

24 So I want to commend Commissioner Douglas and 25 Commissioner Scott for her work on that over a long

1 time.

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And then just a couple other workshops we 2 3 had. On the 27th of last month we had a workshop on the energy efficiency in existing buildings, and 4 5 really looking at code and how code does or doesn't enable existing buildings upgrade projects. And I 6 7 think what we're hearing from stakeholders in the 758 8 context with the action plan that we're receiving 9 comment on and a lack of discussion that that has 10 brought up is that it's not always clear, or the act 11 of compliance and the understanding of what applies to existing buildings, you know, sometimes that 12 13 discussion gets driven by new construction, and when 14 someone goes to do an upgrade of an existing building 15 may not understand or it may generate things that 16 don't make sense to them, or at least the perception 17 is that it gets in the way of doing the project and 18 the local government's participating in making sure 19 it's a compliant project with all the different parts 20 of code.

21 So we want to sort of unpack that, and I 22 think it's an ongoing discussion, but we've got a 23 bunch of good people in the room and started it, so 24 that was great.

And then the long-term energy scenarios

Workshop as well on the 24th. Again, just to keep part 1 2 of the IEPR, and it was very productive and I don't go 3 into the details there, but I think just getting front 4 and center, putting the issues that we have to deal 5 with in California on the docket and building the record and starting to get everyone's' ideas so we can 6 7 make good decisions going forward, so that's really 8 what the IEPR's for.

9 And then I did not -- the last I'll mention, 10 I wasn't even there but I just wanted to highlight 11 that we did have a workshop on crude oil markets and 12 trends, which I could not make but I heard it was 13 productive. Yeah.

14 COMMISSIONER HOCHSCHILD: So first of all, I 15 just want to thank Rob again for the work on this 16 hearing room. We got the LED lights and I see we're 17 redoing the walls. It's nice, a little spring 18 cleaning.

So I know the Chair has just gotten back fromChina and I look forward to hearing about that.

I do think our work engaging with other countries is a really important and enjoyable feature of what we do here. I was with a delegation that we hosted here for a day last week from the Center for Clean Air Policy. They brought in about fifteen

different countries and had just a terrific session with them. I really feel these sort of smaller intimate groups of maybe twenty people, mostly from South America and Asia, you really can go deep.

5 And, you know, they had a lot of questions. 6 And I was very honest about what I think we've done 7 well and also what we haven't, you know, and it was 8 just a terrific dialog. I was actually very impressed 9 with that organization. I had never worked with them 10 before.

I've been continuing this -- I've made this commitment to visit all publicly owned utilities, so this is a journey that's taken me to every corner of the state, but we were in Modesto last week, I think maybe the 30th, a utility I visited out of 43, and each of these dialogs has been great. You learn interesting dynamics.

So in Modesto the load's been basically flat. What happens is the economy picks up in the Bay Area and the housing prices get expensive. People move to Modesto because it's cheaper, but then they have a long commute. Then it subsides and they move out. So that's kind of what (inaudible).

But every single one of these dialogs has
been great because we get to be an ambassador for -- a

lot of them had not heard of some of the programs we operate, like ECAA, you know, and others. And then there's just some really good exchange on how we can make our processes in the Renewables Division work a little bit better. And so I actually feel it really is good for us as well.

7 Another interesting thing is that I've been 8 actually engaged with the Super Bowl and the NFL. So 9 we're going to be hosting the Super Bowl here in 10 California in February at the new stadium, at Levi's, 11 and there's going to be before Super bowl City that's 12 being built in San Francisco for nine days before 13 that, and there's a big committee that's been 14 assembled to help green the Super bowl and really make 15 it an opportunity -- there's 110 million viewers -- to 16 kind of highlight what we're doing to reduce emissions 17 and promote water conservation.

And I sat down with the head of that committee and just brainstormed a whole bunch of ideas. Governor's Office is involved and others, and I think that would be a great opportunity for us to showcase. And I actually welcome if anyone has particular suggestions for what we could do with that opportunity.

This is the first Super bowl that's been

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hosted in California in a generation. And the stadium itself is a solar powered stadium. SunPower did that project. But anyway, so that's, I think that was it for me.

5 I'm going to Idaho next week for the to visit 6 the Idaho National Lab, and then there's a convening 7 of western states, so I'll be there Monday and 8 Tuesday.

9 CHAIRMAN WEISENMILLER: Yeah, it's been busy. 10 I'll start out with Reti 2.0 out of last 11 week. President Picker and I sent out a letter which 12 actually was timed in the sense of with the 13 transmission workshop it helped frame things.

With obviously the Governor's goal of basically getting to 50 percent renewables, the question is ultimately, well, where is it going to come from?

And so what we want to do is start a very public process over the next couple of years involving obviously the Energy Commission, the PUC and the Cal ISO to what we characterized as replicating Reti 1.

Reti 1 was a process that actually started well before I came back and was sort of wrapping up, which in that process CERT was our partner, and it was an effort which has gotten worldwide recognition.

I know when I've gone to, say, Germany, one of the things refer back to is the Reti process. And that went through a stakeholder process ultimately does develop two transmission proposals looking at the resources. One was the Tehachapi's in the wind and the other was sunrise in Imperial Valley.

7 And they went through those processes, got a 8 consensus. You need it. Obviously at some point it 9 went into the utility planning processes to come up 10 with a specific quarters and all that. But having that 11 momentum -- and the other reality I think all of knows if you go project by project, no single project can 12 13 really bear the weight of that sort of transmission 14 upgrade or new transmission line.

Well, if you can do those, then you find the lines get filled pretty quickly, so you have to be pretty careful.

18 So going at the next step we wanted to really 19 have that sort of process here. I think that would be 20 something that's going to be very important for the 21 three agencies to be aligned on what we're doing. And 22 certainly President Picker, myself and Steve Berberich 23 have talked through on a conceptual level where we 24 want to head.

I think it would be very important for the

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Energy Commission basically to reach out to local
 counties and get them very involved, again, to build
 off of the stakeholder process we've had on DRICP.

And for the cal ISO, one of the things that was tied to Reti was there was something called a CTPG, or California Transmission Planning Group, where the cal ISO and the other balancing authorities got together, looked at the transmission needs coming out of the first Reti process and then work together to come up with a transmission proposals.

11 And so we're going to need to have that similar thing, although now as we're looking much more 12 13 Westside with EIM it's going to be important to do 14 this in a process with the other states, recognizing 15 that whether or not -- you know, basically it's pretty clear each state does its own level of transmission, 16 so the question is how much they want to be part of 17 18 this and how much the other balancing authorities want to be part of this process. 19

So with the counties again, this isn't something that suddenly to Mark California's going to do planning for the west as much as we go forward doing our planning to offer an opportunity for other parts of the west to tie into what we're doing in a coordinated fashion. So it's going to be a pretty

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substantial effort, you know, over the next couple
years.

I mean, obviously if you look at the cal ISO transmission planning processes, they have one that's kicking off this fall.

6 Well, we're not going to get this done by 7 this fall. I think the hope is the following fall to 8 really pull it together. And I think we're going to 9 really to have a lot of focus on making sure we get 10 pretty broad public participation. I think certainly I 11 would envision the renewable community be pretty active and presumably arguing about which pockets of 12 13 the state or which resources should be the next 14 tarnished going forward.

15 And at the same time certainly the locals, 16 environs. You know, transmission lines are much less popular than even power plants, so getting that sort 17 18 of public process and I think one of the things Reti did was by having a very public process to get some 19 20 degree of buy-in on the notions of yeah, we did need a 21 line from that (inaudible) we did need a line from 22 Imperial.

Obviously it didn't necessarily have to go through (inaudible) but that was something that was worked out ultimately in the CPC end case.

So I think that's going to be a very critical 1 2 activity. I mean, the reality is, as we all know, just 3 as when we came up with the original transmission plan, you know, based on Reti, that that really then 4 5 quided the generation of renewables we have done to 6 get to 33 percent, so it's time to take the next step. 7 But again, it's not going to be guick, this part of 8 it, and particularly as we coordinate among everyone.

9 I think it was noted I've just gotten back 10 from China, sort of at least physically back from 11 China. I went back there, basically Grant and I. Grant 12 Mack did a great job of planning this trip with one of 13 our colleagues over at cal EPA but it was a trip with 14 myself, GOBIZ, ARB, CAL ISO, and CAL EPA, so it was a 15 pretty broad California delegation.

16 We went to Beijing, got in on a Sunday. Had 17 meetings in Beijing for two days. Grant will have a 18 trip report together this week which we'll pass around 19 when it's done, but we met with the MDRC. And when we 20 were with the governor there three years ago we signed 21 a number of MOUs, most of which were three years in 22 duration, so we're now looking at extending those. But 23 also it was a good chance to talk to the NDOC about 24 Paris, so I had a very good meeting with them on that. 25 Then went to Tsinghua University. The

governor and I gave presentations there on the 1

2 original trip this trip. Again, it was a good 3 opportunity to meet with the more academic community and discuss these issues. 4

5 I was telling Andrew the zero net energy buildings was not particularly well received in China, 6 7 commercial load they were saying I was just nuts. And 8 I was saying, well, Andrew will be here later to 9 explain.

10 And it occurred to me that part of the issue is when you're going around China and you see these 11 forty or fifty story high-rises which are multi-family 12 13 apartments, then you go, yeah, I wonder about zero net 14 energy in terms of those facilities. But again, it's a 15 challenge for Andrew.

16 Anyway, we went from there to Guangzhou, met with -- I did an MOU with the, or we signed an MOU 17 18 we've had with them. We visited South China grid, which is four provinces. It's four times the size of 19 20 Cal ISO in terms of capacity.

21 It's connected actually to Cambodia, Laos, 22 and Vietnam.

23 COMMISSIONER HOCHSCHILD: Not to the rest of 24 China? 25

CHAIRMAN WEISENMILLER: It's separate. The

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rest of China is all in one grid, and then the south
 China, and South China is potentially the more
 progressive of the Chinese grids.

I mean, we think of economic dispatch, reliability. There, the way the Chinese operate is when you're building, let's say a coal plant, you're guaranteed you're going to operate 50 percent of the time, and that's just every day you're slotted at 50 percent of the time.

10 So in terms of the concept of doing economic 11 dispatch or doing reliability, you know, that's like 12 no, that's you're slotted. And then they will call 13 around and say, well, load's up or whatever, could you 14 bump it up a little bit, or bump it down, but nothing 15 automated.

But it's a Fortune 100 company, it's publicly traded, it fills 800 lines to tie into the hydro. That's more in the inner provinces. Pretty sophisticated.

Actually, they allowed us in the control center, which we went there and as foreign nationals you need at least two month's clearance with the ISO to get in, and somehow we got in with less time. So it was a pretty good meeting.

25 Then we went to Shenzhen, had a pretty good

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discussion with them on we have an MOU there that's very ARB focused. Emissions trading, clean ports, pollution control, and that's tee'd up. It'll be reupped in September because in L.A. there's going to be a Chinese event with cities mid September which a lot of the MOUs will then be re-upped in that context but we had good meetings setting the framework for those.

8 But again, just amazed at the number of 9 people who wanted to do more MOUs with us to figure 10 out which are good investments versus lesser so, but 11 certainly when I came back I had Michael Gibbs with 12 me. Mick is the architect of our cap and trade 13 program. Good talk in Beijing, Guangzhou, Szechwan 14 about their cap.

15 They have emissions trading schemes in seven 16 provinces, and getting into some of the nuts and bolts 17 there and how to transcend to more of a national 18 program there, national cap and trade. You know, some 19 of the lessons learned from their programs.

20 COMMISSIONER MCALLISTER: Could you talk 21 about how much of a factor is the federal government's 22 agreement with China and the long term carbon 23 agreements in this conversation?

24 CHAIRMAN WEISENMILLER: I should note we also 25 have gotten a tentative agreement from Szechwan city

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to sign the below 2 MOU, which was the first Chinese entity. It was really important for those agreements to have a Chinese presence, so that again was a real coups from the trip.

5 We met with the embassy. This was actually the second time in less than a year I've met witness 6 7 the embassy talking about the China stuff. And even in 8 the worst times of our relationships with China, 9 between South China Sea, cyber security, terrorism incidents in China, which they've at least alleged we 10 11 might have something to do with, that there was still a very vigorous conversations with the Chinese 12 13 government on a national level on energy and 14 environment and climate.

15 Certainly, they are a good ally for us on 16 Paris. And when I met with the NDRC there was pretty 17 good conversation about what are the steps we want to 18 do between now and then. The SENS process will be in 19 California next spring which will build off the 20 momentum in Paris on clean tech, and then the 21 following year it will be in China, which again will 22 symbolize.

23 When I got back, talking to Mary about ARB 24 (inaudible) China, etcetera. And we split up. There 25 were things Michael Gibbs did that were more

1 environmental or air and there were things Brian Peck
2 did that were more economic development, so different
3 tracks at different times.

4 But then there was a story in the papers this 5 week that indicated the substantial -- current scientific evidence is that thirty percent of our 6 7 particulates in southern California come from China, 8 so it's already pretty impossible for the south coast 9 to comply, but with the Chinese where pollutant is at 10 its worst, I quess there's a recent story indicating a 11 lot of our ozone also comes from China, a substantial 12 amount.

13 So again, we are links inevitably because of 14 the way the winds blow, but also when you think about 15 at least the governor articulated in China that 16 greenhouse gas brings us all together, and we're 17 certainly -- there's no solution to the greenhouse gas 18 issues without China in the bottom line.

But again, it's very clear to say that they're a developing country and they're trying to grapple with incredible environmental and economic issues there and do the balance while we as a developed country have a goal of reducing our greenhouse gas emissions substantially, which gives more room for less developed countries to do that

1 economic development.

2 So anyway, pretty good trip. My first day 3 back in the office sort of, but twelve hour plus 4 flights, fifteen hour time zones take a lot out of 5 you.

6 So we also had an adaptation or resilience 7 workshop with the PUC under the IEPR. That was 8 Commissioner Randolph. It's really good. I have been 9 trying to get the PUC to get interested in this issue 10 for a couple years, so it was good to see someone call 11 me and say that they were actually trying to move on 12 it.

13 The reality is that we're really seeing the 14 impacts of climate change now in a variety of ways. 15 And so the question of looking at our infrastructure when the Governor when he did the Executive Order on 16 17 the forty percent reduction also had an element on 18 adaptation and resilience, however you want to characterize it, so to start looking at that in terms 19 20 of the utility context is good.

21 We've done a lot of research under PIER EPIC 22 under particularly electricity but also natural gas in 23 terms of what are some of the ways that climate change 24 could affect that infrastructure.

25 Challenging for the PUC because obviously

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they regulate other entities too. They regulate Telco, they regulate water, they regulate rail, all of which have similar impacts, but at least this was the first step of looking at these issues for the electric and gas utilities, which was good.

6 And then we did the long-term scenario 7 discussion. We even had Mike Rossi here for a 8 substantial part of it, so that was good. And with cal 9 ISO and PUC obviously involved in it too. Commissioner 10 Randolph was also at that hearing.

11 So I think in terms of the interagency stuff 12 it's certainly continuing to go fairly strong.

I think that's about all I'm going to talk about now. Unless there's any questions let's go on to chief counsel report.

16 MS. MATHEWS: Nothing to report.

17 CHAIRMAN WEISENMILLER: And executive18 director report.

MR. OGLESBY: I would just add that after the meeting with the ports I went on to Hemet, California as a member of the Governor's taskforce on the drought, to meet with local water agencies for an exchange of information on the things that the drought taskforce has been doing an d the things that the local water agencies have been doing to deal with the

drought. It was a productive discussion. CHAIRMAN WEISENMILLER: That's good. And public adviser report. Nothing, okay. Public comment. FEMALE VOICE: And you had some blue cards. CHAIRMAN WEISENMILLER: I had some blue cards that I indicated on Item 5 that I'll be happy to take as public comment. I don't know if people stuck around or not. We have Mike Stone. Apparently not. Okay. So anyway, this meeting is adjourned. (Adjourned at 12:38 p.m.) ------

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