

APPEARANCES

Commissioners Present

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

Staff Present:

Rob Oglesby, Executive Director
Kourney Vaccaro, Chief Counsel
Jared Babula, Staff Counsel
Alana Mathews, Public Adviser
Harriet Kallemeyn, Secretariat

Agenda Item

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Others Present (* Via WebEx)

Interested Parties

Peter Christensen, Air Resources Board
Tim Carmichael, California Natural Gas Vehicle Coalition
Eileen Tutt, CalATC
Jay Friedland, Zero Motorcycles
* Bonnie Holmes-Gen, American Lung Association
*JS: John Shears, CEERT
Cathy Neal, Viridis Fuels, LLC
Claire Van Zuiden, CalStrat
Leonard Fahreddin, Efficient Drivetrains, Inc.
Gregory Stangl, Phoenix Energy
*Michele Wong, CleanWorld
Tom Tansy, SunSpec Alliance

Public Comment

Jerry Desmond, Jr., PMI
Manuel Alvarez, Southern California Edison
Edward Moreno, Sierra Club California
Tim Tutt, SMUD
Mary Anderson, PG&E
Tracy Quinn, NRDC
Daniel Gleiberman, Sloan Valve Company
T.J. Kramer, Kohler Company
Paul Sturman, Center for Biofilm Engineering
Anthony Andreoni, CMUA
*Nate Dewart, Energy Solutions
*Frederick Desborough, PMI
Max Mikalonis, Assy. Rob Bonta Office
*Andreas Cluver, ACCTC
Ronna Reed

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P R O C E E D I N G S

APRIL 8, 2015 10:00 a.m.

CHAIRMAN WEISENMILLER: We'll begin with the Pledge of Allegiance.

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

CHAIRMAN WEISENMILLER: Good morning. I'm going to make some adjustments to the agenda today.

Let's start with the more administerial ones. So the item on the Consent Calendar, we're taking off the Consent Calendar. And we also -- Item 2 is being held this week. We have nothing. And Item 3 is also off the agenda, or excuse me, Item 4.

So again, 1 is off for the Consent Calendar. We are Item Number 1, 2 and 4 are being held for subsequent meetings. So now does --

COMMISSIONER MCALLISTER: Do you want to do a recusals and --

COMMISSIONER DOUGLAS: Disclosures.

CHAIRMAN WEISENMILLER: Do you want to do a disclosures? Go ahead.

COMMISSIONER DOUGLAS: Yeah, that way we won't have to --

1 All right, I'd also like to do two disclosures
2 at this time. Item 19b, Trane U.S. Incorporated, UC Davis
3 is a subcontractor with \$25,000 in the contract. I am an
4 adjunct professor at King Hall, which is the law school at
5 UC Davis. And King Hall's not receiving any of the funds,
6 but I do need to disclose my financial interest in UC
7 Davis. The second, also Item 19c Robert Bosch, LLC, UC
8 Davis is also a subcontractor and so the same disclosure
9 holds for Item 19c.

10 COMMISSIONER MCALLISTER: I wanted to also do two
11 recusals actually and two disclosures. My disclosures are
12 the same as Commissioner Douglas's, 19b and c. My wife is
13 a professor at King Hall, the law school at UC Davis, so
14 simply disclosing there.

15 Two items I'm going to have to recuse myself
16 from. That's Item 9b, San Joaquin Valley Air Pollution
17 Control District. My former employer is the main
18 subcontractor for that project, so I'm going to recuse on
19 that vote. Secondly, Item 22c is directly with my former
20 employer, so I will recuse there as well. Great.

21 CHAIRMAN WEISENMILLER: So I'm going to start out
22 the meeting by reminding everyone last week the Governor
23 went up with DWR when they did the spring snow survey. And
24 I think all of us saw the pictures of the Governor walking
25 through the fields where there should have been five feet

1 of snow, and it was just dirt.

2 And coming out of that, the Governor signed an
3 Executive Order and in that Executive Order he directed us
4 to do four things. And I will talk about the other three
5 later, but I will note that he has directed us to put in
6 place a rebate program for water efficient appliances.
7 He's directed us to put in place a grant program dealing
8 with -- which we call WET, basically Water Emerging
9 Technologies. He's also given us the ability to process
10 faster some of the power plant issues if we need to.

11 As we were preparing the Executive Order I was
12 told to think of things not just for this summer, but also
13 next summer, so thinking in the long term I was to make
14 sure we can respond to any crisis that comes up. And
15 finally, he directed us to basically put in place on an
16 emergency basis our efficiency standards for water
17 appliances. So again, just sort of walking through that
18 context now, I'm going to talk about a change in our
19 agenda.

20 So on March 27th, 2015 the Energy Commission
21 posted the agenda for today's meeting, however on April
22 1st, 2015 after the agenda posted the Governor ordered
23 Executive Order B-29-15. Paragraph 16 of the Executive
24 Order states, "The Energy Commission shall adopt emergency
25 regulations establishing standards that improve the

1 efficiency of water appliances including toilets, urinals
2 and faucets available for sale and installation in new and
3 existing buildings."

4 To expedite the Energy Commission adoption of
5 these emergency regs, Executive Order paragraphs 26 and 30
6 waive procedural requirements of the Government Code and
7 Public Resources Code.

8 In response to the Executive Order, Commission
9 staff proposes that the Commission add an agenda item to
10 today's meeting to adopt regulations referenced in the
11 Executive Order. Under the Bagley-Keene Open Meeting Act a
12 state body may take action on items of business not
13 appearing on the posted agenda, if for instance, the state
14 body finds that there exists a need to take immediate
15 action. And a need for action came to the attention of the
16 state body subsequent to the agenda being posted.

17 So, in compliance with the Executive Order and
18 the Bagley-Keene Act the Commission and I making a motion,
19 will vote to consider whether there's a need to take
20 immediate action. And if the Commission determines that
21 this need exists, it will consider the adoption of Item 29
22 Toilet, Urinal and Faucet Water Efficiency Regulation. I
23 need a motion -- I'll make that.

24 It's particularly important we do this, because
25 we will set up a rebate program for appliances. And so we

1 need to make sure that we're not putting out public money
2 to encourage the adoption of inefficient devices. But we
3 will need to be pretty careful to get the message out to
4 the public, so the public is not confused and goes out and
5 buys inefficient devices and thinks we're going to provide
6 rebates for it. So bottom line, this is a very coordinated
7 program, but this is our first step.

8 So in terms of a motion I move this Commission
9 make and approve the finding that there exists a need to
10 take immediate action. And that the need for action came
11 to the attention of the Commission after the agenda was
12 posted.

13 COMMISSIONER MCALLISTER: I'll second it.

14 CHAIRMAN WEISENMILLER: All those in favor?

15 (Ayes.)

16 CHAIRMAN WEISENMILLER: So with that item added
17 to the agenda I think we should take that up first, staff?
18 Please discuss Item Number 29.

19 MR. BABULA: Hello, Commission. This is Jared
20 Babula, Staff Counsel, and we'll be presenting -- Ken from
21 our technical staff will be presenting the information for
22 this item. Thank you.

23 MR. RIDER: Good morning, Commissioners. I'm Ken
24 Rider, an electrical engineer, with the Appliance
25 Efficiency Program here at the Energy Commission. I'm here

13

1 to present to you on Item 29, which is a possible adoption
2 of new and more stringent water efficiency standards for
3 toilets, faucets and urinals.

4 And although I'm presenting today I would like to
5 give a lot of credit for much of this work to Tuan Ngo who
6 is retiring this month. Next slide, okay?

7 Okay. Since January 17th, 2014 California has
8 been in a continuous state of emergency due to ongoing
9 drought conditions. This year California faces the lowest
10 snowpack ever recorded. On April 1st, Governor Brown
11 issued Executive Order B-29-15 in order to increase
12 California's resiliency to the ongoing drought. This slide
13 depicts Governor Brown announcing the Executive Order in a
14 background of dry grass where typically several feet of
15 snow would be. Next slide.

16 The Executive Order contains several actions for
17 state agencies to take to preserve water. Today we
18 proposed to address number 16, which states:

19 "The Energy Commission shall adopt emergency
20 regulations establishing standards that improve the
21 efficiency of water appliances including toilets, urinals
22 and faucets available for sale and installation in new and
23 existing buildings." Next slide.

24 Four-hundred and forty-three billion gallons a
25 year are consumed through toilets, faucets and urinals in

1 California. Within the state there are over 45 million
2 faucets, 30 million toilets and 1 million urinals of
3 varying efficiencies. Next slide.

4 The proposed standards would set maximum
5 consumption rates for plumbing fixtures sold throughout the
6 state. Toilets would be required to use less than 1.28
7 effective gallons per flush. Wall-mounted urinals would be
8 required to use an 1/8th of a gallon per flush; in other
9 urinals a half a gallon per flush.

10 Kitchen faucets and aerators would be required to
11 have a flow rate of 1.8 gallons per minute or less while
12 allowing a temporary flow rate of 2.2 gallons per minutes.

13 Lavatory faucets would be required to use 1.2
14 gallons of water per minute or less and public faucets a
15 half a gallon per minute or less.

16 In addition, toilets would be required to
17 demonstrate a minimum waste extraction of 350 grams. Next
18 slide.

19 The regulations have a proposed effective date of
20 January 1, 2016. After that date, all products sold or
21 offered for sale in California would be required to be
22 certified as meeting the proposed water consumption
23 standards. The proposal does not include requirements for
24 toilets and urinals used in prisons and mental health
25 facilities. And the proposal does not include any update

1 to trough-type urinal standards. Next slide.

2 Standard levels are cost-effective to consumers
3 as well as feasible. The proposed standards have not been
4 found to cause adverse health effects in general or with
5 respect to Legionella infection from faucets. The studies
6 on the record are not specific or conclusive regarding the
7 health effects for the flow rates proposed. Staff reviewed
8 additional studies outside of the record and did not find
9 adverse health impacts related to the proposed regulations.

10 Also, staff conferred with the Centers for
11 Disease Control and the Department of Public Health and no
12 evidence of health risks were identified.

13 The California Investor Owned Utilities as well
14 NRDC submitted analyses investigating potential health
15 risks and no conclusive health risks were identified. Next
16 slide.

17 The proposed regulations would save significant
18 amounts of water in the state. In just the first year
19 staff estimates that 10.3 billion gallons of water can be
20 saved. Over ten years the cumulative savings of the
21 proposed standards is estimated to be 730 billion gallons
22 of water. By 2039 when most of the existing toilets,
23 urinals and faucets will have been replaced with products
24 that meet the proposed standards the consumption rate of
25 water in California would be reduced by 105 billion gallons

1 of water per year. Next slide.

2 To put these savings in context, that 105 billion
3 gallons of savings is enough to displace the current water
4 consumption of San Francisco three times over. It is
5 enough to fill 1.4 trillion ten-ounce glasses of water.
6 Next slide.

7 The proposed regulations would bring several
8 additional benefits to the state as well. Specifically, by
9 the year 2039 California would reduce its natural gas
10 consumption by 278 million therms per year and electricity
11 consumption by 2,100 kilowatt hours per year by lowering
12 the need to heat, treat and pump water. The reduced water,
13 natural gas and electricity used would yield utility cost
14 savings to California consumers and would lower those bills
15 by \$1.27 billion a year.

16 In addition, the proposed standards would reduce
17 CO2 and greenhouse gas emissions by 2 million metric tons a
18 year. Next slide.

19 In consideration of a potential to save 730
20 billion gallons over the next ten years as well as the
21 energy, monetary and climate benefits staff recommend
22 adoption of Resolution 15-0408-29 in the proposed
23 regulations in order to partially mitigate the effects of
24 the drought and to comply with Executive Order B-29-15.
25 Thank you.

1 CHAIRMAN WEISENMILLER: Okay. So we have a
2 number of speakers. Let's start with Jerry Desmond.

3 MR. DESMOND: Good morning, Commissioners. Jerry
4 Desmond, Jr. and I'm the California Advocate for Plumbing
5 Manufacturers International or PMI. You know, PMI is the
6 international association of the manufacturers of plumbing
7 products and fixtures. Approximately, 90 percent of the
8 products sold in California are manufactured by our
9 members, some of them are based in California and others in
10 and across nation and internationally.

11 And as lead Commissioner McAllister knows we've
12 been proceeding for a couple of years in the Title 20
13 Appliance Efficiency Regulation proceeding addressing the
14 very same issues that are here with the Governor's
15 Executive Order.

16 And I want to take a second and acknowledge
17 Executive Order B-29-15 and the Emergency Drought
18 Declaration and the actions that must be taken to
19 accomplish significant water savings. You know, we support
20 efforts to drive towards additional water savings and
21 conservation.

22 And in fact, within the proposed emergency
23 regulation today there are several standards in the
24 regulation that we support then as described by staff.
25 Those include the toilet maximum performance levels of 1.28

1 gallons per flush as well as the 350 grand performance
2 threshold. On the kitchen faucets, the flow rate of 1.8
3 gallons per minute and also the capability to increase
4 momentarily to 2.2 at 60 psi, and then also with the public
5 lavatory faucets not exceeding half a gram per minute at 60
6 psi.

7 Those will accomplish significant savings as well
8 as has been discussed in great detail within the Title 20
9 proceeding that was pending until this emergency regulation
10 got proposed.

11 Our issue of concern is the residential lavatory
12 faucets. And some of the -- and the level, the maximum
13 flow level. And there are three issues that we have of
14 concern. One is the potential public health and safety
15 risk by lowering the maximum water through that faucet to
16 one gallon per minute. The second is the availability of
17 product. And the third is the cost to modify the product
18 stream prior to the effective date of January 1, 2016.

19 In terms of public safety and health, I think Dr.
20 Sturman who submitted comments in the Title 20 proceeding,
21 might be keyed up to provide public comments this morning.
22 And can speak to the public health risks in detail. And
23 that has been submitted to the record.

24 In terms of product availability within the
25 accelerated timeframe, and again we understand the driving

1 force for this, by looking at the Energy Commission's own
2 database our information is that the 1.2 gallon per minutes
3 product availability today is in single digits; somewhere
4 between 5 and 9 percent of the compliant products that are
5 actually being reported to the Energy Commission. So we're
6 worried about with the effective date of January 1, 2016,
7 there'll be a very limited supply of conforming product
8 available. And partnering with your rebate program, which
9 we want to partner with you on as well, towards that and
10 make sure that there will be water efficient products that
11 are part of that rebate program. We're very interested in
12 partnering on that.

13 In terms then of transitioning, if you have less
14 than 10 percent of the products available today, our 1.2
15 per gallons per minute, and we're trying to meet a January
16 1, 2016 timeframe, the question becomes how can the other
17 manufacturers, the other 90 percent, start to modify their
18 products in time to conform with this January 1, 2016 date?
19 We don't think it's feasible for the vast majority of the
20 products.

21 There would need to be a reconfigure at the
22 manufacturing in order to either apply these new aerators,
23 the 1.2 gallon per minute aerators on to the faucets that
24 are out there today. And the normal product modification
25 timeframe is about two years. So if you look at even

1 accelerating that we would propose as a possible
2 consideration to ratchet down to the 1.2 over a period of
3 time. So that you start on January 16, acknowledge that
4 there's less than 10 percent, and try to go to maybe 1.5
5 and over a period of time to 1.2 to try to make sure that
6 there will be both product availability, public health and
7 safety issues addressed, and certifications as well.

8 And with that, we look forward to partnering with
9 the Commission, of course, on the rebate programs and other
10 directives from the Emergency Drought Order and the
11 regulation.

12 CHAIRMAN WEISENMILLER: Okay. Thank you.

13 COMMISSIONER MCALLISTER: I have a question.
14 Yeah, so Ken could you talk about the distribution that you
15 found across manufacturers in terms of availability?

16 MR. RIDER: Yeah, there are products across --
17 all major manufacturers make some products at 1.2 or below,
18 1.0 etcetera. And there are over 800 individual models
19 certified to the Appliance Efficiency Program currently.

20 COMMISSIONER MCALLISTER: So that at each of the
21 manufacturers has at least one product is 1.2 or less?

22 MR. RIDER: Yeah, most have several.

23 CHAIRMAN WEISENMILLER: Okay. So I think I'm
24 going to continue on with the rest of the people and the
25 rest of the speakers in the room.

1 Let's start with Manuel Alvarez, Edison.

2 MR. ALVAREZ: Good morning, Commissioners.

3 Manuel (indiscernible) in Southern California Edison.

4 As was mentioned previously the Title 20 has been
5 actively involved in this activity. Edison and the other
6 utilities have also participated in that. And I guess at
7 this point we just ask you -- we support this action
8 including the emergency action you're taking, so with that
9 I will answer any questions.

10 CHAIRMAN WEISENMILLER: Okay. Thank you.

11 Let's go on to Sierra Club.

12 MR. MORENO: Good morning, Commissioners and
13 staff. My name is Eddie Moreno and I'm here on behalf of
14 the Sierra Club California. Thank you for giving me the
15 opportunity to speak on an issue important to my 250,000
16 members and supporters.

17 We are thankful for your consideration in the
18 adoption of the emergency regulation establishing
19 efficiency standards for toilets, urinals and faucets. We
20 feel there's definitely a need for immediate action in the
21 proposed regulations. Last week Governor Jerry Brown
22 proposed a mandatory water restriction for the first time
23 ever on residents, businesses and farms ordering cities and
24 towns to reduce their usage by 25 percent.

25 We rely heavily on the Sierra Nevada snowpack for

1 water needs in the state. And on April 1st it was just a
2 small fraction of what the city needs to get through the
3 summer. California needs to act now and needs to get very
4 serious about reducing its water consumption. Conservation
5 and water use efficiency are smart first steps in saving
6 the state from bitter battles that will pit farmers, cities
7 and the environment against one another.

8 As well we are glad to see that CEC is doing its
9 part to meet the directives of the directives of the
10 Executive Order B-29-15. And as it bears repeating we
11 support the proposed regulations for toilets, urinals,
12 faucets, because they will save about 10.3 billion gallons
13 of water and 218 GWh of electricity per year in the first
14 year alone. And over the next ten years the regulations
15 will save 730 billion gallons of water and reduce 2 million
16 metric tons of CO2 emissions annually.

17 The state needs the immediate water savings that
18 will come with the emergency regulations, but it also
19 benefits from the long-term benefits that it will provide
20 when implemented.

21 Thank you for the time to speak. Sierra Club
22 California supports the adoption of water use efficiency
23 regulations for the urinals, faucets and toilets. Thank
24 you.

25 CHAIRMAN WEISENMILLER: Thank you for being here.

1 Tim Tutt, SMUD?

2 MR. TUTT: Good morning, Commissioners, staff.

3 As a utility, which has significant hydro resources and has
4 recently had to take rate action in reaction to the severe
5 drought the state is incurring right now, we fully
6 understand the Governor's Executive Order and the need for
7 emergency regulations and we support your action today.
8 And that's all I came to say.

9 CHAIRMAN WEISENMILLER: Thank you.

10 Let's go on to Mary Anderson, PG&E.

11 MS. ANDERSON: Good morning. I am speaking on
12 behalf of PG&E's Codes and Standards Program. Thank you
13 for the opportunity to let me speak.

14 We commend the California Energy Commission for
15 their leadership on water efficiency and responding to the
16 Governor's Executive Order to achieve 25 percent reductions
17 by next February.

18 PG&E supports the Energy Commission's adoption of
19 the proposed emergency regulations saving billions of
20 gallons of water for the State of California as well as
21 helping it meet its energy and climate goals. We look
22 forward to working with the Commission on additional
23 opportunities for much-needed water savings responding
24 accordingly to these dire circumstances.

25 PG&E supports the staff proposal to adopt these

1 regulations for faucets, toilets and urinals. And we
2 would be happy to answer any questions that you might have
3 in support of this wonderful and important regulation.
4 Thank you.

5 CHAIRMAN WEISENMILLER: Thank you. Anyone else
6 in the room?

7 MS. QUINN: Hi, my name is Tracy Quinn. I'm a
8 civil engineer and policy analyst with the National
9 Resources Defense Council.

10 I wanted to thank you for the opportunity to
11 provide brief comments on this important issue today. As
12 everyone here knows California is experiencing an epic
13 drought that warrants bold and immediate action from our
14 state. Today the Energy Commission has the opportunity to
15 adopt product standards that would provide tremendous water
16 and energy savings throughout the state as well as
17 significant utility bill savings for our consumers.

18 We commend the Commission for responding to the
19 urgency of the Governor's Executive Order and hope that you
20 will adopt these emergency regulations today. We also
21 wanted to note the Commission can go even further on
22 faucets. We think there are sufficient products and
23 sufficient savings that warrant 1.0 gallons per minute for
24 lavatory faucets.

25 And just before I go to note that the vote before

1 you today won't just help Californians survive this
2 drought. It will help the state become more resilient to
3 the intense and frequent droughts that we'll see in the
4 future due to climate change. So thank you and we support
5 what you do today. Thanks.

6 CHAIRMAN WEISENMILLER: Thank you. I did find
7 your card, so sorry.

8 Let's go to the phone, I believe. So let's start
9 with Daniel Gleiberman from Sloan.

10 MR. GLEIBERMAN: Good morning, can you hear me
11 okay?

12 CHAIRMAN WEISENMILLER: Yes, we can.

13 MR. GLEIBERMAN: Thank you, Commissioners. I
14 wanted to thank you for the opportunity and echo a lot of
15 the comments of the commentators from a variety of
16 stakeholders regarding the importance of this emergency
17 regulation.

18 As Jerry Desmond from PMI had indicated PMI, the
19 Plumbing Manufacturers International, has been involved
20 with the Energy Commission throughout the process of
21 updating Title 20. I think it dates back all the way to
22 2012 during an invitation to participate in a variety of
23 public comment opportunities from pre-rulemaking to what's
24 on the current docket for the rules. And my understanding
25 is that these would supersede those rules.

1 And we support the need and the requirement for
2 urgency, but I would offer to all the Commissioners that
3 just because we're under the guidance and the guidelines of
4 an emergency regulation we don't want to adopt a bad
5 regulation. And what I'm suggesting is that throughout the
6 entire rulemaking process of Title 20 there's been a lot of
7 information regarding flow rates and potential health
8 hazards from lowering flow rates beyond what we know to be
9 acceptable.

10 Something that hasn't been indicated is that for
11 residential lavatory faucets specifically, there is a
12 WaterSense labeling program that while voluntary does
13 ensure water savings and does ensure performance for both
14 the consumer and the water utility. And the flow rate for
15 WaterSense is at 1.5, so what I would urge the Commission
16 to do for this emergency guideline is to adopt that flow
17 rate for residential lavatories at 1.5. And if, in fact,
18 the urgency still exists after more information is provided
19 and with more time for manufacturers to be able to supply
20 that type of product we could implement something over a
21 larger time horizon.

22 I think other speakers may join me. I don't
23 disagree with staff's assessment, but as we looked at what
24 was labeled on water census websites over 9,000 faucets are
25 WaterSense labeled. And I don't believe the staff numbers

1 regarding the availability of 1.2 gallons per minute flow
2 rate is accurate.

3 So I would urge the Commission to use WaterSense
4 as the appropriate guidelines for efficient products that
5 guarantee performance and don't create any potential public
6 health or safety hazards. And I thank you very much.

7 CHAIRMAN WEISENMILLER: Thank you.

8 Mr. Kramer?

9 MR. KRAMER: Good morning. My name is T.J.
10 Kramer speaking on behalf of the Kohler Company. Thank you
11 for the opportunity to speak today.

12 Kohler Company understands the water crisis that
13 California is currently facing and we have supported many
14 of the actions the state and CEC have taken in the past to
15 preserve this valuable resource. We believe that in order
16 to ensure that there is sufficient water available for both
17 current and future generations, all Californians should be
18 empowered to make positive changes to help reduce their
19 consumption.

20 And with that we're encouraged by Governor
21 Brown's Executive Order and the fact that it will allow CEC
22 to implement a statewide rebate program for the replacement
23 of inefficient plumbing fixtures and fittings.

24 As Mr. Rider mentioned, the opportunity exists
25 for Californians to save large amounts of water simply by

1 replacing older plumbing fixtures. And we feel that, you
2 know, one of the key opportunities here is to really take
3 into consideration what's already written into law with
4 Senate Bill 407 that was authored by then Senator Padilla.
5 And allow for this rebate program to work in conjunction
6 with Senate Bill 407 and to potentially push the dates
7 forward in that bill to really drive the savings home.

8 Further, in relation to the 1.2 gallon per minute
9 faucets as Kohler does manufacture both fittings and
10 fixtures we as a manufacturer do not offer anything at the
11 1.2 gallon range that is intended for residential
12 installation. What we're offering at less than a 1.5 is
13 really intended for commercial installation. And we
14 support the Title 20 proposals that are currently out there
15 for commercial lavatory faucets at .5 gallons per minute.

16 But as Danny Gleiberman had mentioned, we would
17 support moving forward at 1.5 as a threshold for lavatory
18 residential faucets. Thank you.

19 CHAIRMAN WEISENMILLER: Thank you.

20 Let's turn to Paul Sturman.

21 MR. STURMAN: Yes. My name is Paul Sturman. I'm
22 a research professor at the Center for BioFilm Engineering
23 at Montana State University, in Bozeman, Montana.

24 And I wanted to express concerns around the
25 public faucet flow rate reduction to 1.2 GPM as well as --

1 or pardon me -- the residential faucet flow rate to 1.2
2 GPM as well as the public faucet flow rate reduction to 0.5
3 GPM.

4 Earlier staff mentioned that the CDC had found no
5 evidence to indicate lower flow rates would pose health
6 risks. Unfortunately, there's very little research upon
7 which to draw conclusions specific to faucet flow rates and
8 their influence on pathogen survival in drinking water
9 biofilms like these.

10 We do know that lower flow rates in residential
11 and public water systems lead to greater accumulation of
12 biofilms in these systems. And that greater biofilm
13 accumulation has the potential to harbor pathogenic
14 organisms. So due to these facts, I urge that the Board
15 exercise caution in adopting these lower flow rates for
16 faucets in residential and public situations. Thank you.

17 CHAIRMAN WEISENMILLER: Thank you. Is there
18 anyone else on the line? Or actually, he's here, so do you
19 want to step forward? Thank you.

20 MR. ANDREONI: Thank you, Chairman Weisenmiller.
21 I represent California Municipal Utilities Association. My
22 name is Anthony Andreoni, the Director of Regulatory
23 Affairs.

24 And as some of the utilities mentioned, CMUA also
25 represents many energy and water agencies. And we just

1 want to provide our support for this effort moving
2 forward. As many of our members are gearing up for much of
3 what's going on in the drought anything we can save today
4 is a good way to go. So again we just want to provide our
5 support moving forward and look forward to working with you
6 all moving forward in the next generation of Title 20.
7 Thank you.

8 CHAIRMAN WEISENMILLER: Thanks.

9 Staff, I was going to ask you about your
10 responses to some of the issues. And at least the three I
11 have down, and I think Mr. McAllister may have more, again
12 public health, availability, and the shelving, products
13 shelving question.

14 MR. ANDREONI: Yes. In regards to the public
15 health issues mentioned. Staff reviewed all the reports
16 related to potential -- especially around Legionella, which
17 was raised in the record. And none of the reports were
18 conclusive. None of them were specific to the flow rates
19 proposed at all.

20 And in addition, we did a lot of extra work. We
21 looked at a larger amount of research outside of things
22 that had been submitted and we did a lot of outreach to
23 public health agencies and like I mentioned the CDC and the
24 Department of Public Health. And nothing we could find
25 showed that there were any potential health risks from 1.2

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1 gallon-per-minute faucets or any of the other water
2 efficiency standards proposed today.

3 So we did a pretty thorough job. We reached out
4 and we just could not find anything that showed that there
5 would be a health risk in these proposed standards.

6 In regards to availability, the 800 models are
7 products that were certified with the Energy Commission.
8 And they're in our database. So these are things that
9 manufacturers told us that they make.

10 To make a faucet comply, the change needed is to
11 use a more restrictive aerator. It's a fairly
12 straightforward change to a faucet. It's a component
13 within a larger fixture that is separate, but controls the
14 flow rate. So it's not a very large change that needs to
15 happen to faucets. So for products that don't meet -- so
16 there's 800 that meet it -- the products that don't meet
17 the standards today need to use more restrictive aerators.

18 And what was the third? I've got two of them.

19 CHAIRMAN WEISENMILLER: Excuse me, so the product
20 shelves.

21 MR ANDREONI: The what?

22 COMMISSIONER MCALLISTER: The stock turn over.

23 CHAIRMAN WEISENMILLER: Stock turnover, yeah.

24 MR ANDREONI: Oh, yeah. The stock turn-over --
25 the product life times are ten years or so; is that what

1 you're asking?

2 COMMISSIONER MCALLISTER: I think the question
3 was more about the near-term transition retailers.

4 MR. ANDREONI: Yeah, so retailers would have the
5 ability to continue selling through up until January 1,
6 2016. So they have a little bit left in the year to figure
7 out what to do with the products they have. And then at
8 that point, they would not be allowed to sell products that
9 do not comply with the proposed standards.

10 CHAIRMAN WEISENMILLER: Okay. And does the staff
11 -- I realize at this point we're moving pretty fast -- but
12 has the staff thought about how to best coordinate the
13 standards with the rebate program, so that we're spending
14 California dollars on the most efficient products?

15 MR. ANDREONI: I think that's a very important
16 thing to consider and we will consider those things. The
17 rebate program is just getting figured out. And we will
18 certainly take that into consideration.

19 COMMISSIONER MCALLISTER: I think it's likely --
20 no, go ahead.

21 CHAIRMAN WEISENMILLER: No, I was going to say I
22 mean, just so for the general public information we will
23 prepare for the May revise, specific proposals on the
24 rebate program, and also on WET. And then presumably those
25 will be adopted in the budget and we'll implement July 1st.

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1 COMMISSIONER MCALLISTER: A quick question on
2 the public faucets. The record has pretty much fully
3 supported the half-a-gallon on the public faucet side. Is
4 that correct?

5 MR. ANDREONI: Yes, and most of the public
6 faucets that we have certified to us already are at around
7 .5 gallons per minute. So not only is it supported by the
8 record, but it's the direction the industry is also headed.
9 So it's supported by industry as well.

10 COMMISSIONER MCALLISTER: Thanks.

11 MR. BABULA: I want to add one thing. This is
12 Jared Babula, Staff Counsel. In Ken's presentation, he
13 noted that there was some information received that was
14 outside the record. And so we are forming the record now.
15 And so those items, which we need to check with some other
16 staff, will be added to the docket and should be included
17 and considered as part of this record. And that was in his
18 initial presentation.

19 CHAIRMAN WEISENMILLER: Okay. That's great. We
20 also have an additional caller on the phone. Let's turn to
21 the gentleman from Energy Solutions.

22 MR. DEWART: I'm just calling on behalf the IOUs
23 as well as the California Investor Owned Utilities. And
24 just want to reiterate the points that Ken made about
25 availability; in particular the replacement aerators and

1 looking at the database. I was just looking at it this
2 morning and seeing about 50 percent of the aerators would
3 meet the levels; an easy relatively straight forward
4 swapping of those. And as well as pointing out the
5 WaterSense of 2007 standard, and certainly something that
6 the market has moved relatively -- over the course of time
7 -- so I think the market is positioned to meet these
8 proposed levels.

9 I thank the Commission for addressing these
10 really important, critical, timely standards.

11 CHAIRMAN WEISENMILLER: Thank you. We may have
12 an additional gentleman on the line?

13 MR. BABULA: Did that last caller identify
14 themselves for the record?

15 COMMISSIONER MCALLISTER: That's the other
16 question.

17 CHAIRMAN WEISENMILLER: Please would you identify
18 yourself for the record? Just your name and
19 (indiscernible)

20 MR. DEWART: Sure. This is Nate Dewart from
21 Energy Solutions, calling on behalf of the California
22 Investor Owned Utilities.

23 CHAIRMAN WEISENMILLER: Okay. And I think we may
24 have an additional caller. I was just trying to figure out
25 if that's on Item 29. That's my guess, so hold on a second

35

1 just in case.

2 The gentleman from PMI, could you speak now?

3 MR. DESBOROUGH: This is Frederick.

4 CHAIRMAN WEISENMILLER: Great. Thank you
5 Frederick. Go ahead.

6 MR. DESBOROUGH: My name Frederick Desborough.
7 I'm representing PMI.

8 And what I would like to just reiterate -- Jerry
9 has already alluded to this, so has Daniel Gleiberman. The
10 aerators or what I would call spout end pieces, which are
11 designed for commercial application, are not in the sense
12 of an aerator, but more of a spray form. And have only
13 been produced, to the best of my knowledge, for use within
14 commercial applications. Commercial faucets, which
15 differentiate tremendously from residential faucets,
16 whether it's if a plain-type nature or decorative high-end
17 type nature faucet.

18 So the simple changing out of the low-flow spray
19 spout end devices is not necessarily conducive of being
20 simply changed out on other faucets.

21 CHAIRMAN WEISENMILLER: Thank you.

22 MR. DESBOROUGH: Thank you very much for the
23 opportunity to make that point.

24 CHAIRMAN WEISENMILLER: Thank you.

25 Anyone else in line? Again, we're going to

1 transition now to Commissioners' questions and discussion.
2 So step up now or hold your piece.

3 Okay. Mr. McAllister, go ahead.

4 COMMISSIONER MCALLISTER: So thanks for that
5 presentation and all the comments. I really appreciate
6 everybody being here and definitely want to acknowledge all
7 the participation in the rulemaking that we've had over the
8 last significant number of months, in the Title 20
9 rulemaking.

10 I want to acknowledge some of the different
11 positions here, but I also want to heighten the level of
12 urgency and the opportunity we have here to take action
13 that moves the marketplace in ways that long-term are going
14 to be positive.

15 Now one of the commenters said -- you know, that
16 they acknowledge the near term, but boy once this drought
17 is done, then we'll be okay, basically. And I think that's
18 just not at all clear. I think this is long term. I know
19 we have climate change to wrestle with. We know that's
20 going to impact the hydrologic cycle. We know that this
21 drought is not certainly -- probably not a temporary thing,
22 but cyclically we're going to see much water variation in
23 our snow pack and in our water availability in this state
24 going forward. And there is really no end in sight to
25 that.

1 So we've looked, with a very critical eye, at
2 the record and have seen an opportunity to really make sure
3 we're doing as well as we can; that we're getting as many
4 savings as we can at frankly modest to no risk. So I'm
5 comfortable with these levels. I certainly acknowledge the
6 fact that we're pushing the marketplace, particularly we're
7 hearing on the comments today on the faucets. We had quite
8 a number of discussions about the urinals.

9 But the technology exists and we need it in
10 California. And I think we all need to sort of put on our
11 vision goggles and look down the road and look down the
12 road at what the State's going to look like ten, twenty
13 years from now and start adapting to that. And this is a
14 very clear opportunity to take decisive action to do that.
15 So I am confident in this action. I want to work with
16 industry to make it as seamless a transition and as planned
17 a transition as possible.

18 And we certainly have some other tools at our
19 disposal. We have this rebate program that I think we all
20 need to roll up our sleeves and make sure that it's
21 designed well and that it supports the transition of the
22 marketplace in a very clear way. You know, in the period
23 between now and the effective date, get the messaging down
24 so that it's clear that even though in the near term
25 adoption of efficient fixtures is voluntary, that the

1 rebates will be available to those fixtures and will help
2 motivate folks to use the complying fixtures before the
3 effective date.

4 We also have a team that is working on SB 454
5 implementation and so we do have some ability to enforce
6 regulations, and obviously throughout the development of
7 those regulations, which I've partnered with Commissioner
8 Douglas on. Our stated desire, and that remains to be the
9 case, is that we don't want to be faced with enforcement
10 action. We want to utilize that program to assist the
11 marketplace to transition so that it is in compliance. And
12 this is a very clear case of where we want to work overtime
13 to do that.

14 So those are really my comments. I wanted to
15 emphasize the long term. Regulations don't just walk up
16 and introduce themselves every so often. They have to be
17 developed. And they take a lot of time and energy and
18 resources to get through the process. So we are at that
19 moment now and it's not going to come back to us soon. So
20 I think we really need to make a count and help the
21 marketplace transition. Thank you.

22 CHAIRMAN WEISENMILLER: Okay. Yeah, this is the
23 Chair again. I wanted to make a couple of points.

24 One of those is that in the first Brown
25 Administration we had a drought, but it was not as bad as

1 this one. And coming out of that we put in place a lot of
2 water efficiency measures, which certainly help us now.
3 When our population is much, much larger than it was in
4 1977 the crisis we're facing would be much worse.

5 I think in terms of the sense of urgency again,
6 as Commissioner McAllister indicated, there are certainly
7 scientists on both sides. It's pretty clear that our
8 climate is changing. It's not something for our
9 grandchildren, but its changing now.

10 From the science, you'd expect the changes to
11 really be most pronounced in the Arctic and that changes in
12 the Arctic certainly affect the global climate machinery.
13 Particularly you see that now in terms of a lot more
14 variability in the jet stream. And certainly there's
15 pretty good scientific thinking that changes in the Arctic,
16 changes in the jet stream, is turning into our drought and
17 turning into the Polar Vortex on the East coast.
18 Certainly, the President's Science Advisor, John Holdren
19 has spoken often on that.

20 I think in terms of looking at can we -- should
21 we really have a sense of urgency or can we muddle through
22 this year for the next year back to rain?" I think all
23 this all of us in this Administration have certainly been
24 sobered by the Australian experience where they've had a
25 12-year drought. And each year that went by as they were

1 marching along they kept saying, "Well, we'll just do what
2 we can now, because it's all going to be better next year."
3 And eventually looking backwards, they realized all the
4 things they should have done within that position.

5 I think certainly we all take public health
6 issues seriously, but at this point the staff has done a
7 lot of analysis on public health. And I think in terms of
8 certainly there's not any clear compelling conclusion on
9 that is what I'm hearing from them. And I certainly
10 appreciate that we've had testimony on the phone raising
11 the issue. But again at this point I think we need to
12 certainly move forward. We need to look at solutions. We
13 need stay on top of that.

14 And certainly on the product availability
15 question I think the basic message to the industry is given
16 the drought, given the rebate programs, there's going to be
17 a lot of opportunity in California for very efficient
18 fixtures. And this guarantees that it's not just something
19 for the rebate program, which is we were directed to make
20 it limited duration. But our future really would be both a
21 very vibrant market for hopefully more and more efficient
22 appliances.

23 COMMISSIONER DOUGLAS: And I'll just briefly add
24 on that obviously this drought is very serious. It's been
25 serious for years. We need to take action urgently, and so

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1 the actions that the Energy Commission can take to
2 contribute to the solution are really important. We need
3 to step up as other state agencies, or course, are stepping
4 up across the state to make a difference where we can. So
5 I'm strongly supportive of this proposal.

6 MR. HOCHSCHILD: Thank you, Mr. Chairman, for you
7 leadership on this, and Commissioner McAllister and also
8 Ken Rider and your colleagues. Not just for today, but for
9 your terrific work every day. I'm really proud of your
10 whole team.

11 When I was a Commissioner at a water utility,
12 serving two-and-a-half million customers in California, the
13 SFPUC, we dealt with these kind of issues in depth. I just
14 want to first of all just express the drought is an
15 emergency. And that means that there's going to be some
16 transitions that are not so smooth. And it is not going to
17 be an entirely friction-free process. I think we just need
18 to be very honest about that.

19 I want to directly address the faucet issue for a
20 minute. I heard three arguments being made. One is around
21 public safety. The other was availability of product and
22 the cost of transition. The second two I get; I think
23 they're legitimate concerns. The first, I'm not persuaded
24 by and let me explain why.

25 If you read the California Single Family Water

1 Use Efficiency Study, the average peak flow today in the
2 state for residential faucets is 1.1 gallons. And the
3 reason for that is when you turn on the faucet most people
4 don't turn it on all the way, so I'm just not persuaded
5 that the delta between 1.0 and 1.2 is a difference maker in
6 this regard. And in fact, I believe we should actually be
7 moving to 1.0. And eventually, in fact, I think we'll get
8 there.

9 And Mr. Chairman, to your point when we look back
10 at previous droughts and ask the question, "What do we wish
11 we would have done looking back," I think this is one of
12 the things that we should be pushing even harder on.
13 There is going to be a transition here. And that's
14 something we have to manage, but my view is the utilities
15 and the environmental community were correct in their
16 written comments that that's actually the direction we need
17 to go. And I personally would support us going to 1.0.

18 COMMISSIONER SCOTT: I'll just take a minute to
19 echo some of the themes that you heard from my colleagues
20 and that's about the serious challenges that we have ahead
21 of us, due to climate change and the impacts. And also the
22 appreciation that the Energy Commission is in a position to
23 do something sensible that can really help out here. So
24 I'll just kind of echo those two themes.

25 COMMISSIONER MCALLISTER: I want to just follow

1 up with one more comment. So the WaterSense standards are
2 great for the nation. That program has done a lot. And I
3 think one of our tasks going forward is helping figure out
4 how to get that program more resources, so that they can
5 work to update more often their standards, their voluntary
6 standards. And we can do that through a number of
7 channels; certainly through the other State Energy offices,
8 through NASEO, with a presence in D.C. working with the
9 federal Agencies that's one path to sort of help lobby for
10 more resources for that effort, etcetera.

11 I certainly appreciate the 1.0 versus the 1.2
12 issue. We get about two-thirds of the incremental savings
13 from 1.5 to 1.0, by going to 1.2. And the staff really --
14 I think it really highlights the fact that the staff has
15 done complete analysis on this that has a lot of critical
16 thinking behind it. And looking at the breadth of the
17 record, certainly listening to industry definitely, and
18 also advocates and what everybody puts into the record.

19 You know, in particular I think there is actually
20 a need for some additional understanding on the variable
21 pressure issue and sort of how that ends up at the end use.
22 And so going forward hopefully we'll all have a better
23 understanding of that. But I'm comfortable with where we
24 are now. I think we've pushed the envelope from 1.5 to get
25 quite a bit of incremental savings. I think it's something

1 like 17 billion additional gallons. So I'm obviously
2 supportive of this action.

3 So if it's okay I'll move Item 29.

4 MR. HOCHSCHILD: Second.

5 CHAIRMAN WEISENMILLER: All those in favor?

6 (Ayes)

7 CHAIRMAN WEISENMILLER: This motion is passed
8 five to zero. Thank you.

9 Thanks everyone for your participation in the
10 comments. Obviously we respected the Governor's direction
11 to move fast and we appreciate everyone helping us develop
12 a good record on this.

13 And again, we certainly look forward with
14 industry to work together on the rebate program and on the
15 implementation. It's a great opportunity in California for
16 water-efficient devices, now and in the future.

17 So let's go on to Item Number 1, which again is
18 not again the Consent Calendar. This is a non-residential
19 building energy use disclosure procedure 15-OIR-03. Staff,
20 please?

21 MS. MARTINEZ: Good morning, Commissioners. I'm
22 Consuelo Martinez, the manager of Appliances and Existing
23 Buildings Office.

24 Today's agenda item is to adopt, on a permanent
25 basis, the emergency regulations which amended the date

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1 after which the disclosure requirement of Public Resources
2 Code Section 25402.10 applies to nonresidential buildings
3 with total gross square footage measuring at least 5,000
4 square feet and up to 10,000 square feet. The emergency
5 regulations amended the implementation date for the size
6 threshold from July 1st, 2014 to July 1st, 2016.

7 By way of background the Public Resources Code
8 Section 25402.10(d)(1) requires an owner or operator of a
9 nonresidential building should disclose pursuant to a
10 schedule established by the Energy Commission, the United
11 States Environmental Protection Agency's ENERGY STAR
12 Portfolio Manager benchmarking data, and ratings for the
13 most recent 12-month period to a prospective buyer, lessee
14 or lender of an entire building at the time of sale, lease,
15 finance or refinance.

16 The proposed order would certify and make
17 permanent the emergency regulation changing the effective
18 date for buildings with a total gross square foot area
19 measuring at least 5,000 square feet and up to 10,000
20 square feet from July 1st. 2014 to July 1st. 2016.

21 CHAIRMAN WEISENMILLER: Thank you.

22 So we had one letter. I was going to see if
23 there was anyone either in the room or on the phone who
24 wants to comment on this item?

25 (No audible response.)

1 Apparently not, Commissioner McAllister?

2 COMMISSIONER MCALLISTER: Yeah, so this is our
3 evolution of AB 1103 and with lots of consultation with
4 legal and we're working through the emergency regulation
5 process. We're modifying those regulations for the long
6 term and are trying to maintain the process to dot all of
7 our I's going forward. And make sure we do what's
8 necessary for keeping it an emergency regulation, but also
9 moving forward on the substance in parallel with that.

10 So I don't know if Galen, do you have any more
11 specifics about the legal requirements here, but this is
12 really administrative, in my view, to keep the ball moving
13 forward.

14 MR. LEMEI: Yeah, I'll just speak to that
15 briefly.

16 This is confirming -- this is the process to
17 certify and make permanent the emergency regulation, which
18 would otherwise be repealed by operation of law. This is
19 an extremely narrow action pursuant to a specific process
20 in the Administrative Procedures Act. So yeah what you
21 said, Commissioner McAllister, is correct.

22 COMMISSIONER MCALLISTER: All right, so I'll move
23 Item 1.

24 COMMISSIONER DOUGLAS: Second.

25 CHAIRMAN WEISENMILLER: All those in favor?

1 (Ayes)

2 CHAIRMAN WEISENMILLER: Item 1 passes 5-0.

3 Thanks staff.

4 Let's go on to Item Number 3. And as we get
5 ready I just want to put a little bit of context and then
6 turn it over to staff.

7 Basically, Assemblyman Bradford had a bill on
8 diversity for the Energy Commission. And ultimately the
9 Governor vetoed that, but at the same time, in specific
10 language, I committed through a letter to President Peevey
11 that we would -- in the spirit of the legislation -- that
12 we were going to take steps to improve what we are doing in
13 the area of diversity.

14 And part of that obviously was not just that
15 commitment, but also a commitment that we would start
16 monitoring what we're doing and how we're doing. And so I
17 see this as the first annual effort to really give an
18 annual update on that. And at the same time, I would point
19 out that Commissioner Scott made similar commitments for
20 the 118 Program. I think today's step is a great one in
21 that it's moving from commitments of both of us about
22 specific programs to more of a policy statement for the
23 Commission as a whole.

24 So this that, please.

25 MS. MATHEWS: Good morning, as Public Adviser I

1 am excited and pleased to offer this resolution regarding
2 Diversity Policy Statement for the Energy Commission, for
3 your consideration.

4 "Whereas the State Energy Resources Conservation
5 and Development Commission, Energy Commission recognized
6 that California's promise, successes, and innovations stem
7 from the rich and diverse qualities and abilities of its
8 people.

9 "And whereas the Energy Commission further
10 recognizes the diversity of thought, talent and perspective
11 flourishes and benefits the State, its communities and
12 people in environments where differences are welcomed and
13 encouraged.

14 "And whereas the Energy Commission appreciates
15 its unique ability to promote diversity by providing small
16 businesses and women, disabled veterans, minorities and
17 lesbian, gay, bisexual and transgender, LGBT-owned
18 businesses, opportunities for increased participation and
19 commission programs. And by ensuring that Energy
20 Commission-funded programs benefit California's
21 economically disadvantaged communities.

22 "And whereas the Energy Commission, through
23 programs including, but not limited to its electric Program
24 Investment Charge, EPIC Program and Alternative and
25 Renewable Fuel And Vehicle Technology Program (ARFVTP) is

1 committed to ongoing outreach activities that inform small
2 businesses and women, disabled veteran, minority and an
3 LGBT-owned businesses and economically disadvantaged
4 communities, about opportunities to participate in program
5 solicitations and activities.

6 "And whereas the Energy Commission is further
7 committed to ongoing efforts to identify geographic regions
8 throughout California, with economically disadvantaged
9 communities for program activities that can lead to job
10 creating and training, improved air quality, and energy
11 efficiency and environmental gains.

12 "Therefore, be it resolved that it is the policy
13 of the California Energy Commission, consistent with state
14 and federal law to optimize fair and equal opportunities
15 for small businesses for small businesses and women,
16 disabled veteran, minority and LGBT-owned businesses, as
17 well as economically disadvantaged and underserved
18 communities to participate and benefit from Commission
19 programs."

20 As you stated, Chair, the diversity policy
21 reflects the commitment and goal that you set as well as
22 Commissioner Janea Scott. So at this time, I'd like to
23 invite Lorie ten Hope and John Butler to share how these
24 commitments have already been adopted in key program areas
25 here at the Energy Commission.

1 CHAIRMAN WEISENMILLER: Thank you. Please.

2 MS. TEN HOPE: Good morning. I'm Laurie ten
3 Hope, the Deputy Director for our Research Division. And
4 I'd like to highlight a few of the efforts we have taken to
5 date. And I'm here with my colleague, John Butler, from
6 the Fuels and Transportation Division. And jointly we
7 represent a fairly large funding source and opportunity for
8 outreach.

9 So we started initially with providing workshops
10 around the state to demystify what our grant application
11 process is. We want to make sure that people know that
12 funding is available and know how to participate and you
13 don't have to already have to already have been here
14 receiving grants to receive future grants in our program.

15 We held these around the state in various
16 locations and we posted our PowerPoint online. It's very
17 detailed. It's about 50 slides. It really goes through
18 the whole process of what the application consists of, what
19 we're looking for, how projects are scored and how to
20 remain informed on the process. We've also really
21 increased our outreach to provide materials on our programs
22 at various events, conferences and workshops.

23 In addition, through connections through our
24 public adviser and other sources we've reached out to the
25 ethnic Chambers and various business diversity

1 organizations that will help spread the word about the
2 funding opportunities. And also sort of develop a network
3 of people knowing people that we know who to talk to and
4 various organizations can reach back out to us to find out
5 more detail about our funding opportunities.

6 We also have a deep partnership with the
7 military, which helps us facilitate participation of
8 disabled veteran participants in our programs.

9 One of the new things that we've done with the
10 EPIC Program is we've developed a survey. It's a voluntary
11 survey, but we send it out to all the recipients of funding
12 to develop a baseline of who our participants are and get a
13 better sense of who is currently receiving awards. And we
14 expect to see an increase in diversity as we go forward.

15 We collected surveys from our seven initial
16 recipients in the EPIC Program and you'll hear about those
17 in the presentation in the EPIC Annual Report later today.

18 Finally, we have increased the use of social
19 media, so we are Tweeting out information about funding
20 opportunities and we also are launching today a LinkedIn
21 function. And this is going to allow participants to
22 network among themselves to collaborate for funding
23 opportunities.

24 We have found that our pre-application workshops
25 for our grant applications are a great opportunity for

1 participants to form partnerships and then apply for
2 grants. And we think this is a way that new entrants will
3 find it easier to partner on a large grant by perhaps
4 partnering with others. And so we encourage people to
5 check out the LinkedIn site. Sign up and if you sign up
6 for the LinkedIn site, you'll be notified as subgroups are
7 established for networking on specific funding
8 opportunities.

9 So these are some of the things that the Research
10 Division has done in collaboration with FTD. I'm going to
11 turn it over to my colleague, John Butler, to describe some
12 of their division activities as well.

13 And I just want to conclude by saying this is
14 just sort of the beginning. We're starting our outreach
15 where we welcome suggestions from the dais and from
16 participants, as well of how we increase our outreach and
17 diversity. Thank you.

18 MR. BUTLER: Great. Thank you, Laurie.

19 Good morning, Chairman. Good morning,
20 Commissioners. My name is John Butler. I'm the Manager of
21 the Emerging Fields and Technologies Office, which is
22 responsible for the implementation of the Alternative and
23 Renewable Fuel and Vehicle Technology Program or ARFVTP.

24 Similar to EPIC, ARFVTP has committed to
25 increasing outreach to underrepresented business segments

1 and disadvantaged communities to increase participation in
2 our programs and ensure the benefits of our funding program
3 accrued to as many Californians as possible.

4 I'm pleased to report that we have been
5 coordinating closely with our EPIC Program on these efforts
6 and will continue to do so to maximize these public
7 benefits coming from these two programs.

8 Specific to our program, we've already conducted
9 a series of public workshops, primarily in disadvantaged
10 communities to educate the public on funding opportunities
11 provided by ARFVTP. How to apply for those funding
12 opportunities and navigate the solicitation and application
13 processes, and tips on how to write competitive proposals
14 and avoid common pitfalls in applying for funding
15 opportunities. These workshops were primarily held in
16 disadvantaged communities such as Oakland, Los Angeles, San
17 Bernardino and Fresno.

18 In addition, ARFVTP Investment Plan workshops
19 have been held in disadvantaged communities over the last
20 couple of years as well, including one in Southern
21 California and most recently in Fresno. The Investment
22 Plan will be up for consideration a little later in this
23 business meeting. So this was done to provide these
24 communities the opportunity to provide input and expand
25 their participation in the development of that plan as

1 well.

2 Over the last year or so, ARFVTP has incorporated
3 scoring preferences and geographical requirements in
4 funding solicitations, to ensure that funding awards from
5 the program are provided to disadvantaged communities.

6 Of particular note ARFVTP is partnering with
7 California Pollution Control Financing Authority to
8 implement the Electric Vehicle Charging System Financing
9 Program. So this is a Loan Loss Reserve Program. And
10 under that program additional contributions will be made to
11 loan loss reserves for loans provided by private lenders in
12 disadvantaged communities to further incentivize those
13 private lenders to provide that financing opportunities in
14 those targeted communities.

15 Moving forward, ARFVTP will continue efforts to
16 increase participation rates from underrepresented business
17 segments and disadvantaged communities by coordinating with
18 the Energy Commission's Public Adviser's Office and our
19 sister programs such as EPIC, establishing a baseline and
20 program goals to ensure that our outreach is effective and
21 obtaining the participation that we're seeking. As
22 appropriate, continue providing scoring preferences, bonus
23 points, geographical requirements and funding set-asides to
24 increase participation of disadvantaged communities in our
25 funding solicitations.

1 And then, as Laurie has mentioned, providing
2 networking opportunities for underrepresented business
3 segments to partner with potential grant applications and
4 participate in our program.

5 And then finally, just utilizing those different
6 communication pathways, to make sure that we're
7 communicating the availability of these opportunities to
8 all Californians and all communities. Thank you. 16:07

9 CHAIRMAN WEISENMILLER: Thank you.

10 I should have noted earlier, Commissioners, that
11 when I sent a letter into the PUC, I sort of was mirroring
12 that (indiscernible) language or the PUC's regulations.
13 This also includes basically the LGBT provision, which was
14 not in that letter. So again going forward we'll want to
15 make sure that people get on that commitment.

16 COMMISSIONER SCOTT: I'll just add. It was a
17 commitment that I made during my confirmation hearing at
18 the beginning of the year, last year. And I want to say
19 thank you so much to the team for their great job in
20 helping implement that, helping push this through the
21 Alternative and Renewable Fuel and Vehicle Technology
22 Program.

23 And thank you to Alana and her team for
24 developing the resolution and also for working kind of
25 hand-in-hand with the transportation team and the EPIC team

1 as we tried to figure out how do we reach a broader set of
2 stakeholders and a broader audience.

3 Our OGA team has also been fantastic helping us
4 identify legislators and their staff who might be
5 interested in helping us to forward the information about
6 different workshops or whatnot to their constituents,
7 because they can reach a different set of people.

8 And some of our stakeholders have also been
9 really great about, "Oh okay, yeah. We'll take this notice
10 and forward it out to our list." And so we're working very
11 hard to try to reach kind of a broader set of people than
12 the kind of self-identified energy wonks.

13 And so it's been really great. And I'm just so
14 pleased that we have this resolution before us today to
15 broaden this commitment, which is something that I'm
16 committed to -- and I think that all of your are as well --
17 from the ARFBT Program and the EPIC Program kind of to more
18 broadly across the Energy Commission.

19 COMMISSIONER DOUGLAS: Well, I'll just jump on
20 and say that I really appreciate Commissioner Scott and the
21 Chair bringing this before us and the Public Adviser as
22 well.

23 We had an opportunity to talk a bit about this
24 about this proposed resolution yesterday. And talk a
25 little bit about the siting world and how we might move

1 forward on achieving these goals and continually better
2 achieving these goals in the siting world. And that's a
3 part of what all of us have in front of us now, both on the
4 Commission side and on the management side is taking the
5 resolution. And then moving forward in implementation and
6 asking ourselves, you know, both what do we think we
7 already well, but more importantly as well what do we think
8 we can do better?

9 And I think that, among other things, this
10 resolution is a really nice opportunity for all of us to
11 take stock in our different roles and in our different ways
12 and really address that question. So I'm strongly
13 supportive of this and look forward to follow-on. I also
14 want to thank John and Laurie for your early work on this
15 and your presentations today.

16 CHAIRMAN WEISENMILLER: (indiscernible)

17 COMMISSIONER HOCHSCHILD: Just that I think this
18 actually builds on a lot of other success we're having in
19 the state. If you look at General Order 156 that the PUC
20 is implementing and the utilities are complying with on a
21 voluntary basis, I think it's been hugely successful.

22 The Chair and I were in a briefing a few months
23 ago on the progress that the utilities are making and it-s
24 actually quite remarkable. And we should commend all the
25 utilities for their work. I think this fits right in with

1 that progress.

2 CHAIRMAN WEISENMILLER: Yes. And I would dare
3 say that this reflects the strong commitment of the past
4 PUC President, Mike Peevey.

5 COMMISSIONER MCALLISTER: True. Yeah, so having
6 been on the -- in a previous life having been on the
7 receiving end of those policies, I've actually had to work
8 through on how -- you know, at the utility responding to
9 RFPs and everything. And I can tell you it is real. I
10 mean, it's having an impact on the marketplace and that's a
11 really great thing.

12 And so I want to just really mirror what
13 Commissioner Douglas just said about her role in the siting
14 arena for the efficiency arena. We have lots of programs
15 that interact with the public in very different ways and a
16 very diverse set of activities.

17 And I'm really looking forward to working with
18 staff to figure out what compliance with this resolution
19 looks like for those activities. You know, how we do
20 outreach to whom when it's a grant program versus a
21 regulation versus a code or standard or something. Sort of
22 how we might apply it across those sort of activities and
23 make sure that we're doing everything that we can do, so
24 I'm very strongly supportive of this as well.

25 COMMISSIONER SCOTT: I'll move approval of Item

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1 3.

2 COMMISSIONER HOCHSCHILD: Second.

3 CHAIRMAN WEISENMILLER: All those in favor.

4 (Ayes)

5 CHAIRMAN WEISENMILLER: This item passes five to
6 zero. Thanks.

7 Thanks for the effort so far and its going be an
8 interesting report next year. It's certainly a key
9 challenge for the Executive Office in terms of a lot of
10 implementation details to work though.

11 So let's go on to Item Number 5, EnergyPro
12 Version 6.5. Todd Ferris, please.

13 MR. FERRIS: Good morning, Commissioners. We're
14 seeking your approval of EnergyPro Version 6.5 as a
15 compliance software to be used for the 2013 nonresidential
16 standards. EnergyPro Version 6.5 has been updated to use
17 the CBEC Com API. By updating to the CBEC Com API the
18 compliance software now uses EnergyPlus as the basis to
19 calculate the energy budgets.

20 This version of EnergyPro software uses the
21 simplified geometry, two dimensional option, of the CBEC
22 Com API. Therefore, the software cannot model additional
23 daylighting credits beyond the mandatory requirements.

24 As stated in the Executive Director's written
25 recommendation, which has been included in the backup

1 materials to this item, staff has reviewed EnergySoft's
2 application and found the compliance software vendor
3 certification statement, the compliance runs, summary
4 sheets, compliance supplement and user manual meet the
5 requirements of Section 10-110 of the 2013 standards.

6 Because EnergySoft is seeking approval of Version
7 6.5, Version 6.4 that was Item 8 at the business meeting of
8 March 11th is no longer being considered for approval. The
9 version number has been changed from 6.4 to 6.5 to reduce
10 confusion stemming from an older beta version of EnergyPro
11 that used DOE-2 and was available to users. This will
12 allow building departments to easily identify the proper
13 software as being used.

14 Thank you and I'm available for any questions.

15 CHAIRMAN WEISENMILLER: Thank you.

16 Any public comment? Doesn't look like it, go
17 ahead.

18 COMMISSIONER MCALLISTER: Okay. Great.

19 Thanks a lot, Todd. I'm supportive of this. We
20 have software that works and complies with our standards
21 already. They've been in effect for a number of months.
22 And, you know, now I think it's good for the marketplace
23 for practitioners to have options and to be able to use the
24 software among the options that they're most comfortable
25 with.

1 I want to really thank staff for really going
2 above and beyond to work with all the vendors, but in this
3 case this vendor, EnergySoft, to provide the level of
4 service that was needed to get this across the finish line
5 and make sure that is a quality product that actually
6 complies and accurately reflects the standards themselves.

7 And I really have an insider's view on how much
8 work that's been and have been getting regular updates all
9 along and know how much staff has been troubleshooting and
10 responding and working on this topic. Which take it from
11 me, this is very complex, and it's a lot of detail, and
12 it's quite an analytical heavy lift. And I want to just
13 thank Todd, the team and Marline and Joan and everybody
14 involved really at the staff level.

15 Actually, I know Rob and Drew have also kind of
16 really been keeping tabs on this, because it has been
17 requiring a lot of staff resources. And so managing that
18 has been a task worth mentioning as well. So I'm fully
19 support with this item.

20 All right, I will move Item 5.

21 COMMISSIONER SCOTT: Second.

22 CHAIRMAN WEISENMILLER: All those in favor?

23 (Ayes)

24 CHAIRMAN WEISENMILLER: Item 5 passes five to
25 zero. Thanks.

1 Let's go on to Item 6, Driving To Cleaner
2 Transportation webpage. Michelle Chester, please.

3 MS. CHESTER: Hello Commission. My name is
4 Michelle Chester. I'm the Executive Fellow to Commissioner
5 Scott. And I worked with the student intern in our office,
6 Oshae Bennett, to update the Driving To Cleaner
7 Transportation webpage.

8 So the new webpage features ten projects funded
9 under the Energy Commission's Alternative and Renewable
10 Fuel and Vehicle Technology Program. The projects were
11 selected from each of the funding categories under ARFVTP,
12 including biofuels, electric charging infrastructure,
13 hydrogen, natural gas manufacturing, emerging
14 opportunities, medium and heavy-duty advanced vehicle
15 technology demonstration as well as workforce training and
16 development.

17 So on the screen now is the test webpage. You
18 can see all the projects that we have highlighted as well
19 as links to the existing Driving and Cleaner Transportation
20 webpage. So each webpage includes a summary and
21 description of the project as well as a general map of
22 where the project is located, some of the benefits,
23 environmental and economic, and the status of the project.

24 This page is accessible through the general
25 Energy Commission website, under their Transportation tab.

1 And I would like to note that it would not be possible
2 without the help from Carol Greenwood on the web team.
3 Thank you.

4 CHAIRMAN WEISENMILLER: Thank you.

5 Any questions or comments?

6 COMMISSIONER SCOTT: Yeah, no. I just want to
7 say thank you so much to Michelle Chester and our intern,
8 Oshae Bennett, and Carol Greenwood, on the web team for
9 pulling this together. We got the idea of course from the
10 Clean Energy Tour that Commissioner Hochschild put
11 together, but it's a great opportunity I think to highlight
12 some of the successful projects in the ARFVTP project
13 space. And there's some really cool projects. And so it's
14 nice to have a little bit of text, have some pictures, and
15 give some richness and life to some of the projects that
16 we've funded. So I appreciate you putting that together.
17 Thank you.

18 CHAIRMAN WEISENMILLER: That's very good. Let's
19 go on to Item Number 7, which is the Investment Plan.
20 Charles Smith, please.

21 MR. SMITH: Thank you. Good morning,
22 Commissioners. I am Charles Smith, with the Emerging
23 Fuels and Technologies Office in the Fuels and
24 Transportation Division. I'm the Project Manager for the
25 2015-2016 Investment Plan Update, for the Alternative and

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1 Renewable Fuel and Vehicle Technology Program, or ARFVTP.

2 Also with me are Jim McKinney, the Program
3 Manager for AFRVTP and advancing the slides, Jacob
4 Orenberg, the Assistant Project Manager for the Investment
5 Plan Update.

6 Today, we are seeking your approval of the 2015-
7 2016 Investment Plan Update for the ARFVTP. If approved,
8 the current Lead Commissioner Report version will be
9 reissued as an official Commission Report. And this will
10 serve as a guide for our funding solicitations and awards
11 in the coming fiscal year.

12 The purpose of the ARFVTP is to provide funding
13 support for projects that reduce greenhouse gas emissions
14 within the transportation sector, which comprises about 37
15 percent of statewide GHG emissions. The projects we fund
16 also contribute to other state goals, including improved
17 air quality, increased alternative fuel use, reduced
18 petroleum dependence and promotion of economic development.

19 As a quick recap, our program has awarded more
20 than \$557 million in funding to more than 450 projects to
21 date. Our statutes call on us to develop a diverse
22 portfolio of alternative fuels without adopting any one
23 preferred option. Accordingly, our awards reflect a broad
24 portfolio of project types ranging from biofuel production
25 facilities to electric vehicle chargers, to advanced

1 technology trucks, to hydrogen refueling stations.

2 Here's a visualization of our funding to date.

3 You can see the columns representing phases of the
4 transportation sector, starting with fuel production to
5 fueling infrastructure and then on to vehicles.

6 Our fuel production represents about \$135 million
7 in awards between biodiesel, biomethane and ethanol fuel
8 projects. Our infrastructure investments consist largely
9 of support for new hydrogen refueling stations in blue and
10 new EV charging stations in green. The vehicles' funding
11 is mostly made up of vehicle deployment incentives for
12 natural gas trucks in purple, and advanced technology
13 hybrid, plug-in hybrid and electric truck demonstration
14 projects in green.

15 We have also supported in-state manufacturing
16 facilities for electric vehicles and components plus other
17 awards such as workforce training, regional readiness and
18 fueling standards development.

19 Turning to the '15-'16 Investment Plan Update,
20 you can see our chronology for this plan's development. We
21 issued an initial Staff Draft in November and followed it
22 up with a first Advisory Committee meeting. Based on feed-
23 back, we released a revised Staff Draft in January and held
24 a second Advisory Committee meeting in the San Joaquin
25 Valley Air Pollution Control District's Fresno office.

1 Last month, we released the proposed Lead
2 Commissioner Report, which is here before you today. As
3 mentioned we have held two Advisory Committee meetings, in
4 which we heard from 20 member organizations and state
5 agencies. About 15 other groups and individuals also
6 participated in those meetings.

7 We've received and considered 20 comment items
8 via our public docket and participated in other ongoing
9 meetings with stakeholders as we developed this plan.
10 Here's a list of our Advisory Committee members who you
11 wish to thank for their contribution and dedication to our
12 program. The list includes fuel and technology groups,
13 environmental and public health groups, academic
14 institutions and partnering state agencies.

15 Next, I'll give a brief summary of this
16 Investment Plan's proposed allocations starting with our
17 allocation for biofuel production. To date, our projects
18 have funded the expansion of in-state ethanol, biomethane
19 and diesel substitute production capacity by about 90
20 million gallons per year or MGPY. For future funding, we
21 expect to increase our expected ratio of MGPY per program
22 dollar requested and will continue to emphasize waste-based
23 and other low carbon feed stocks.

24 We may reserve some of this funding for smaller
25 scale pre-commercial development and demonstration projects

1 including opportunities for advancing the development of
2 drop-in gasoline and drop-in diesel substitutes. For this
3 category we're proposing a \$20 million allocation for the
4 coming fiscal year.

5 Turning to fueling infrastructure, Assembly Bill
6 8 of 2012 set an annual \$20 million allocation for the
7 expansion of California's growing hydrogen refueling
8 network. Based on funding to date we're anticipating up to
9 54 stations in 2016. An ARB Report required by Assembly
10 Bill 8 recommended the full \$20 million allocation
11 anticipating the need for 10 to 11 new stations based on
12 surveys of fuel cell vehicle manufacturers, all in
13 furtherance of the state's goal of 100 stations by 2020.

14 We anticipate that our \$20 million allocation
15 will be able to support roughly seven new stations, plus
16 the operations and maintenance necessary to support the
17 initial network.

18 For electric charging infrastructure, we benefit
19 from a 2014 assessment of in-state chargers by the National
20 Renewable Energy Laboratory or NREL. This assessment helps
21 us identify benchmarks towards meeting the Governor's goal
22 of supporting one million SEVS by 2020. Our programs
23 priorities include DC fast chargers, workplace chargers,
24 multi-unit dwelling chargers and chargers in previously
25 underserved areas.

1 We're also tracking and complementing the
2 charging investments of other participants; in particular
3 electric utilities, the NRG settlements, and some auto
4 makers. Based on our anticipated needs we support a \$17
5 million allocation for this category.

6 We're also proposing funding to expand natural
7 gas fueling stations. These projects provide an
8 opportunity for expanding a cleaner fuel option into
9 communities and entities that might not otherwise have
10 access to alternative fuels or alternative fuel capital
11 financing.

12 As in previous funding solicitations in this area
13 we expect to emphasize school districts and other
14 disadvantaged areas in our future funding in order to
15 achieve maximum health benefits among vulnerable
16 populations. For this, we are proposing a \$5 million
17 allocation.

18 Moving from infrastructure to vehicles we are
19 also proposing for natural gas vehicle deployment
20 incentives. These vehicles offer opportunities for
21 achieving immediate GHG reductions, increasing alternative
22 fuel use, and supporting future NOx reductions as part of
23 the ARB's voluntary low-NOx standard.

24 To ensure these GHG reductions, we are continuing
25 to monitor live-cycle GHG missions associated with methane

1 leakage as well as opportunities for incorporating low
2 carbon renewable natural gas. Our proposed \$10 million
3 allocation may be used to supplement a recently approved
4 agreement with UC Irvine to administer end-user vehicle
5 incentives.

6 We are also providing support for alternative
7 fuel and advanced technology truck demonstration projects
8 that will be necessary for achieving the state's air
9 quality and GFG reduction goals. As in previous years,
10 this funding is open to a broad range of vehicle
11 technologies and vehicle application types.

12 New to this year however, we are merging this
13 allocation with our previous manufacturing allocation.
14 This new category will give applicants the flexibility to
15 seek support for demonstration activities, manufacturing
16 and scale-up activities or both combined. This should help
17 ease technology developers' transition toward the larger
18 pilot projects funded by the ARB with their greenhouse gas
19 reduction funds. We are proposing a \$20 million allocation
20 for this category, reflecting the combined imbalance of
21 last year's two separate categories.

22 In addition to funding for alternative fuel and
23 vehicle projects our program also funds activities that
24 contribute to their market success. In this Investment
25 Plan we are proposing \$3 million for an emerging

1 opportunities category, which has been traditionally been
2 reserved for federal cost-sharing opportunities or projects
3 that don't neatly fit into any of the preceding categories.

4 Our \$3 million allocation for workforce training
5 and development is based on estimated funding needs from
6 our partnering state agencies, including the Employment
7 Training Panel, Employment Development Department, and the
8 Community College's Chancellor's office.

9 And finally, we are reserving \$2 million for
10 regional readiness plans and implementation. Previous
11 awards in this category have helped local governments
12 identify regional activities for encouraging zero emission
13 vehicles, streamlining their SEV infrastructure permitting
14 processes and conducting local outreach and awareness
15 activities.

16 This final slide summarizes all of our Investment
17 Plan's proposed funding allocations. And at this point,
18 I'd be happy to answer any questions you may have. I think
19 when we get to public comment, we may have a few Advisory
20 Committee members here as well interested in speaking on
21 this item.

22 CHAIRMAN WEISENMILLER: Thank you. Let's take
23 the Advisory Committee own comments and then we'll come
24 back. So let's start with the ARB's representative, Peter
25 Christensen.

1 MR. CHRISTENSEN: Good morning, Peter
2 Christensen with the Air Resources Board. And on behalf of
3 Dr. Alberto Ayala, who is your Advisory Committee member,
4 and the staff at the ARB, pleased to be here today to
5 support the Investment Plan.

6 And we think that your plan that staff has
7 developed strikes the right balance between the many
8 different project types including fuel production
9 infrastructure, vehicle demonstration, vehicle deployment
10 and many other categories. I don't mean to leave any off,
11 but the point is that we think that it is a good balance
12 between the project types as well as the many different
13 variety of fueling types out there.

14 We are at the same time, at the Air Resources
15 Board, we're developing our funding plan for next year,
16 which includes our historical funding through the Air
17 Quality's AB 118 Air Quality Improvement Program. That's
18 about \$25 million a year as well as the \$200 million in low
19 carbon transportation. It's part of the greenhouse gas
20 reduction fund included in the Governor's January budget.

21 We're in the process of our public outreach right
22 now. We're planning to take our proposed plan to the Board
23 in June. And I also want to not forget to extend our
24 thanks to your staff for participating with us in that
25 public process. It's been very helpful as we move forward.

1 We recognize that we still, even with our
2 coordinated investments, don't have enough funding to meet
3 all the demand out there, but we do think that we're making
4 significant investments in advanced technologies that are
5 helping to achieve significant air quality improvements,
6 very deep greenhouse gas reductions and many improvements,
7 benefits to disadvantaged communities. So we look forward
8 to continuing that, continuing our partnership and our
9 coordinated efforts. And once again thank you for
10 developing an excellent plan and we look forward to
11 continuing to work with you.

12 CHAIRMAN WEISENMILLER: Great. Thanks for being
13 here today. Let's go on to Tim Carmichael.

14 MR. CARMICHAEL: Good morning, Commissioners.
15 Time Carmichael with the California Natural Gas Vehicle
16 Coalition here to support the plan. We greatly appreciate
17 the Commission's continued support for natural gas
18 transportation and the production of biomethane in
19 California.

20 I thought we had a lot of good input on this
21 year's plan and look forward to continuing to work with
22 your staff on improving the fund distributions process for
23 vehicle incentives and continuing to work with Commissioner
24 Scott on improving our metrics for investment decisions.
25 Thank you very much.

1 CHAIRMAN WEISENMILLER: Thank you. Let's go on
2 to Eileen Tutt.

3 MS. TUTT: Good morning, Chairman and Members of
4 the Commission. My name is Eileen Tutt. I'm with the
5 California Electric Transportation Coalition.

6 The first thing I want to say is thank you for
7 your unprecedented collaboration amongst the agencies that
8 are overseeing quite a bit of money thanks to your efforts
9 and the efforts of the administration and the other
10 agencies. And really collaboratively and in an organized
11 fashion, looking at the way that this money is spent and
12 trying to make sure that you're coordinating with each
13 other.

14 I've been in government and working with
15 government, around government, for a long time and I've
16 never seen this level of coordination. So I want to
17 recognize the Energy Commission staff in particular as well
18 as the Air Board and other agency staff that serve on the
19 Committee.

20 In terms of the actual plan, here in full
21 support, clearly the process has been very collaborative
22 and well run. And I want to specifically recognize the
23 dollars appropriated for regional readiness. I think
24 that's a very important category and really appreciate the
25 staff's consideration in adding that category about three

1 years ago and then continuing to fund it.

2 And then finally I just want to say that in the
3 EV infrastructure arena this is something we agree with,
4 the funding the staff has allocated or is recommending, but
5 just to clarify -- I think that Peter said it as well --
6 these funds are always oversubscribed. And so we really
7 appreciate the thoughtfulness you and the staff has put
8 into trying to find the right balance and we think you've
9 done that with this report. So thank you.

10 CHAIRMAN WEISENMILLER: Great, thank you.

11 Jay Friedland?

12 MR. FRIEDLAND: Good morning, Commissioners. I'm
13 Jay Friedland from Zero Motorcycles. On behalf of Zero
14 Motorcycles we want to express our support for the key
15 goals of the 2015-2016 Investment Plan Update.

16 And our company has received two previous grants
17 under the program and we were recently awarded a third
18 grant. Leveraging these Energy Commission funds has
19 allowed us to take private capital, along with Energy
20 Commission funds, and build the beginning of a vibrant new
21 industry.

22 Zero is one of the companies that we've created
23 over 115 jobs and over 5,000 of our motorcycles are now on
24 the road, across the world. In addition, to being an
25 electric vehicle manufacturer which designs and builds our

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1 motorcycles right here in California, our customers and
2 dealers across the world have benefitted from our Crafted
3 In California Strategy. So we really feel that California
4 is key to our success. And as the leading manufacturer of
5 electric motorcycles we see a vital need for the ARFVTP to
6 continue to assist California companies in terms of
7 manufacturing.

8 Specifically though with respect to manufacturing
9 funding, we've supported the concept of allowing both
10 vehicle technology demonstrations and manufacturing to
11 overlap, because we think that that's really going to allow
12 for innovation for new products and technologies.

13 One challenge though that we've seen is in the
14 proposed revision by combining the funding is how do you
15 reflect the various greenhouse gas reductions? And how do
16 you look at that particular part of the technology?

17 In the recent advanced vehicle technology
18 manufacturing solicitation, which is PON-14-604 -- you're
19 going to approve several of those projects today -- small
20 vehicles such as electric motorcycles were compared
21 directly with medium and heavy-duty vehicles in terms of
22 GHG reductions. Which actually led to the unfavorable
23 comparison of deployments of tens or dozens of trucks,
24 versus thousands of electric motorcycles.

25 And so what we see here is it's very much like

1 comparing apples and oranges in terms of these
2 technologies. And it may actually be an unintended
3 consequence.

4 In order to meet our overall GHG and petroleum
5 reduction goals we think that the Energy Commission should
6 consider supporting a broad portfolio of vehicle
7 technologies, which all work to transform transportation.

8 Early deployments of thousands of electric
9 motorcycles have actually had a significant impact on
10 transforming an entire industry. The largest manufacturers
11 of motorcycles including Harley Davidson, BMW, Honda,
12 Yamaha and Polaris are all now making investments or have
13 announced electric motorcycles.

14 And the benefits from switching from ICE to
15 electric motorcycles extend far beyond just GHG reductions
16 to include as much as a 10X reduction in criteria
17 pollutants. So consumers and public safety departments
18 across California are already reaping these benefits today.
19 So we think that both medium and heavy-duty vehicles and
20 electric motorcycles have critical roles to fill,
21 obviously, and should not have to compete with each other
22 for funding in this transformation.

23 As the Energy Commission considers future funding
24 opportunities and allocations, we suggest that the market
25 impact and use, along with the GHG and petroleum reductions

1 be considered, or that solicitations are maybe isolated by
2 vehicle type. Thank you very much.

3 CHAIRMAN WEISENMILLER: Thank you for being here.

4 Anyone else in the room? So let's go on the
5 phones. Bonnie?

6 MS. HOLMES: Hi there. Thank you, Chairman and
7 Members of the Commission. I'm really glad to be able to
8 speak in support to the update to the Alternative and
9 Renewable Fuel Technology Program Investment Plan. And we
10 greatly appreciate the staff's hard work. And I really
11 appreciate the opportunity to be a part of the Investment
12 Plan Advisory Committee. It's been a great opportunity for
13 me.

14 And as you consider this plan, every year as we
15 come to the business meeting for adoption of this plan,
16 it's about the same time as the American Lung Association
17 releases our annual State of the Air Report. And that
18 reminds again how serious our air pollution problems are in
19 California. And it's important to mention this and to
20 comment on how important the AB 118 funds are to keep us on
21 track with both our criteria air pollutant concerns and our
22 greenhouse gas reduction goals.

23 And the AB 118 program funds are incredibly
24 important, because these technologies and fuels that we're
25 funding are driving the transformation that we need to zero

1 emissions. And we believe that this is an urgent health
2 priority.

3 So I just wanted to give our support for the
4 whole portfolio that's in this plan, but to particularly
5 mention our support for electric and hydrogen fueling
6 infrastructure expenditures and expenditures for the medium
7 and heavy-duty technology demonstration project and the
8 Regional Alternative Fuel Readiness Programs.

9 And also just mentioned to keep an eye, as we go
10 forward, on the funding for electric vehicle incentives as
11 I think you know that CVRP program has been heavily
12 impacted and even with the GGRF funds, there is projected
13 to be a short fall. So it's keep an eye that. Keep an eye
14 on how the funds in this program are assisting
15 disadvantaged communities. That's also very important.
16 And I appreciate the report on that earlier today.

17 And let's keep an eye on how this funding is
18 assisting the areas of the state that are worse impacted by
19 pollution, especially the San Joaquin Valley. And
20 appreciate that the Investment Plan Advisory Committee did
21 have a meeting in Fresno and has I think stepped up the
22 focus on how we are benefitting overall in impacted areas
23 like the Valley.

24 Thank you for the opportunity to comment.

25 CHAIRMAN WEISENMILLER: Thank you. John Shears,

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1 please?

2 MR. SHEARS: Good morning, Commissioners. Yeah,
3 this is John Shears with the Center for Energy Efficiency
4 and Renewable Technologies. And I just want to applaud
5 Commissioner Scott and the AB 118, AB 8 staff again on all
6 of their excellent work and the team effort that they made
7 in working all stakeholders and with other agencies.

8 I'm speaking in full support of this year's
9 Investment Plan and thank everyone for all of their
10 excellent work. Thank you.

11 CHAIRMAN WEISENMILLER: Thank you.

12 Anyone else on the line?

13 (No audible response.)

14 So let's transition to Commissioner discussions.
15 Commissioner Scott?

16 COMMISSIONER SCOTT: I just want to say thank you
17 to Charles for that excellent presentation. And also for
18 all of his really good work in shepherding the ARFVTP '15-
19 '16 Investment Plan from start to finish.

20 And although I know you guys have all heard this
21 from me before, I think it's worth repeating. The
22 Transportation Sector, as you know, is responsible for
23 about 40 percent of the greenhouse gas emissions in the
24 state, about 80 percent of the smog-forming nitrogen oxides
25 in the state, and about 95 percent of the cancer-causing

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1 diesel particulate matter in the State.

2 And for us to be able to meet our clean air
3 goals, especially those in the South Coast and San Joaquin
4 air basins, we need nothing short of a total transformation
5 of the Transportation Sector to near zero and zero emission
6 vehicles. And we also need this transformation to help the
7 state meet its climate goals and to meet its petroleum
8 reduction goals.

9 I think the staff has developed another robust
10 Investment Plan. I think it strikes the right balance for
11 funding and reflects the portfolio approach that the
12 legislature has asked us to use. We've made some
13 improvements to the document itself by including some
14 additional summary charts. There's a good example of one
15 on page 5. And that's in there to kind of help busy folks
16 who might have only time to skim over the plan, kind of see
17 what we did in a snap shot version. It's a terrific report
18 though, so you should read the whole thing.

19 The Energy Commission has funded, and will
20 continue to fund, impactful projects that help demonstrate
21 certain technologies or fuels that help us to solve hurdles
22 to advanced technologies and fuels. And help us accelerate
23 these cleaner technologies and fuels from the pre-
24 commercial space into the commercial space.

25 As you heard, we hosted one of our public

1 meetings on the plan in Sacramento and we had the other
2 one in Fresno. And I just wanted to send another shout out
3 to our colleagues to the San Joaquin Air Pollution Control
4 District for being such wonderful hosts. It was a great
5 meeting actually and I want to thank the Advisory Committee
6 as well, because a lot of folks took the train down. They
7 drove down from the Bay Area. They drove up from Los
8 Angeles or San Diego to participate in the meeting in
9 Fresno. And I really appreciate them doing that.

10 And I also just want to thank the Advisory
11 Committee and all of our interested stakeholders for their
12 commitment and their engaged participation here. I look
13 forward to continuing to work with all of you.

14 And then again, just kind of a last thanks to
15 Charles Smith and to Jacob Orenberg, to Jim Mckinney, John
16 Butler and Judy Friedman for their leadership in helping
17 put this great Investment Plan together. And so I would
18 recommend this for your approval.

19 CHAIRMAN WEISENMILLER: Thank you.

20 COMMISSIONER MCALLISTER: Great. I'm very happy
21 to be able to vote on one of these things, because I've had
22 to recuse myself on the previous ones, so I'm all raring to
23 go.

24 COMMISSIONER SCOTT: All right. So I will move
25 approval to Item 7.

1 COMMISSIONER HOCHSCHILD: Second.

2 CHAIRMAN WEISENMILLER: All those in favor?

3 (Ayes)

4 CHAIRMAN WEISENMILLER: Great. This passes five
5 to zero.

6 Let's go on to 8 Viridis Fuels. Andre Freeman,
7 please.

8 MR. FREEMAN: Good morning, Commissioners. My
9 name is Andre Freeman. I represent The Fuels and
10 Transportation Division here at the Energy Commission.
11 Today I'm seeking approval of an agreement with Viridis
12 Fuels to develop a biodiesel production facility.

13 This project would utilize funding provided by
14 the Alternative Renewable Fuels and Vehicle Technology
15 Program, which you just heard about.

16 This funding will serve as seed funding for the
17 construction and development and activities under this
18 project. Viridis expects to provide over \$50 million
19 towards the project during the design, construction and the
20 first two years of operation of this facility of match
21 funding.

22 Viridis Fuels currently has a lease agreement
23 with the East Bay Municipal Utility District to utilize
24 land that's connected to the main wastewater treatment
25 plant, located in West Oakland, for the development of this

1 facility.

2 This facility will have a biodiesel production
3 capacity of 20 million gallons per year with additional
4 marketable co-products also being produced. The facility
5 will utilize waste feed stocks such as fats, oils and
6 greases, as well as other purpose-grown crops.

7 Biodiesel produced from these feed stocks has a
8 significantly lower carbon intensity than conventional
9 diesel does. This fuel can help lower the GHG and air
10 pollution emissions that are currently located in the
11 region such as at the Port of Oakland, which is closely
12 located to this facility.

13 As part of the construction operation of this
14 production plant Viridis expects to create more than 80
15 direct jobs in the surrounding disadvantaged communities.
16 Viridis will actively address environmental justice
17 concerns during the development of this facility.

18 For example, as part of the recruitment for on-
19 going operations of this facility Viridis will set aside
20 jobs for individuals reentering the workforce and former
21 CalWORKS recipients and other individuals in disadvantaged
22 and underrepresented groups. So I think that this is a
23 really good project to tied to Item Number 3 that you heard
24 today of the Energy Commission's outreach activities in
25 these areas.

1 In accordance with the California Environmental
2 Quality Act guidelines staff has reviewed the East Bay
3 Municipal Utility District's environmental impact report
4 and has no information indicating that the environmental
5 documentation is inadequate and have considered this
6 information in deciding whether to recommend approval of
7 this proposed agreement.

8 With that, I would like to thank you for your
9 consideration of this item. And Cathy Neal, the CEO of
10 Viridis is here, and would like to say a few words.

11 CHAIRMAN WEISENMILLER: Please. Come on up.

12 MS. NEAL: Hello. And I would like to first
13 thank the Commission for your leadership and your insight
14 into the entire State of California's vehicle fueling
15 needs. As evidenced by the item just before this one, it's
16 clear that you understand that there is no one size fits
17 all. And appreciate the fact that you really have had the
18 vision and the foresight to have such a balanced approach
19 to all of our fueling needs for the various kinds of
20 vehicles on the road in California. So I thank you for
21 that.

22 I want to particularly acknowledge Commissioner
23 Scott for her leadership as the lead Commissioner in this
24 particular area. We have found her to be especially
25 accessible, enviably intelligent, and exceedingly committed

1 to the responsibilities that she has in front of her. So
2 I want to thank her for that.

3 I also wanted to give, as the Commissioner said,
4 a shout-out to the staff. Often when you hear people say,
5 "I'm from the government and I'm here to help you," you
6 roll your eyes. However, in this case we have found the
7 Energy Commission staff to be very, very truly helpful and
8 quite a joy to work with. We could not have gotten here
9 today without their guidance and support, while also making
10 sure that the interests and requirements of the Energy
11 Commission are fully adhered to. So we do appreciate that.

12 You already heard about our project. I was going
13 to tell you a little bit about it, but we are just very,
14 very pleased that we are able to develop a project that
15 delivers so many environmental and social benefits. And
16 that's something that the creators of this project were
17 committed to from the very beginning. We've worked very
18 closely with our local elected officials. We've worked
19 very closely with our community organizations. We do sit
20 right next to an area in Oakland called West Oakland, which
21 is disadvantaged. And we're pleased that we can bring them
22 jobs.

23 Finally, you talked about your diversity
24 initiative today. I did attend the Oakland outreach
25 program and it was very good. As to my knowledge, the only

1 minority and minority owned biodiesel company in the State
2 of California, I would like to offer our availability and
3 our interest in helping you to promote your diversity
4 initiative in any way we can.

5 And finally, in the immortal words of Humphrey
6 Bogart, for those of us who have been around long enough to
7 know who that it, slightly altered words, "I know that this
8 is the beginning of a beautiful friendship."

9 CHAIRMAN WEISENMILLER: Thank you.

10 The representative of Assemblyman Bonta, please?

11 MR. MIKALONIS: Thank you. My name is Max
12 Mikalonis. I'm here on behalf of Assemblymember Rob Bonta
13 representing Oakland, Alameda, and San Leandro in the 18th
14 Assembly District.

15 The Assemblymember is in strong support of this
16 project and appreciates the work that Viridis Fuels and the
17 Energy Commission have put together on this. We believe
18 it's important for the biofuels for the broader Bay area
19 and important to economic and air quality impacts for the
20 18th AD.

21 I wanted to again thank you for your
22 consideration of this agreement and application.

23 CHAIRMAN WEISENMILLER: We certainly thank you
24 for being here.

25 Now we have someone on the line, I believe,

1 Alameda Construction Trades Council?

2 MR CLUVER: Yes, hi, can you hear me?

3 CHAIRMAN WEISENMILLER: Yes, we can.

4 MR. CLUVER: My name is Andreas Cluver. I'm
5 Secretary Treasurer with the Alameda County Building and
6 Construction Trades Council. We represent 28 unions in
7 construction and about 40,000 men and women living and
8 working in Alameda County. And we want to speak in favor
9 of Viridis Fuels.

10 I think in addition to the environmental and
11 economic benefits, I think that were described earlier, I
12 want to make it very clear that Viridis Fuels has a full
13 commitment to having labor standards on this project, both
14 in terms of construction and operational.

15 They came to us and signed a project labor
16 agreement on the project guaranteeing that the construction
17 work that's going to be happening on the project is going
18 to be done by union members that are on career tracks in
19 quality work force. In addition to their commitments to
20 also ensuring access for local residents and disadvantaged
21 residents to get jobs, not only in construction, but the
22 operational jobs.

23 So we strongly support this project and hope that
24 you will too. Thank you.

25 CHAIRMAN WEISENMILLER: Thank you.

1 Anyone else? Okay. Well, Commissioner Scott?

2 COMMISSIONER SCOTT: Well, I am happy to support
3 this project. Thank you, Cathy and Mario for being here.
4 And Max from Assemblyman Bonta's office, thank you for
5 being here, and our commenter on the phone as well. And to
6 Andre for his terrific work on this project; he does a
7 great job every day.

8 So this is a pretty cool project. It's not every
9 day that we get a project before us that kind of has the
10 promise to have so many positive impacts along with it.
11 You know, improvements to the air quality, because of the
12 cleaner fuels; the social benefits that go along with this
13 project; the employment benefits that go along with the
14 project.

15 And it's also my understanding that the project
16 is going to potentially work closely with the Port. And so
17 that gives us the opportunity to potentially model some of
18 these solutions of other ports around the state. And so, I
19 think it's a good project and I'm happy to support it.

20 COMMISSIONER HOCHSCHILD: Just to chime in for a
21 minute to a woman from Viridis Fuels. Thank you for your
22 comments, in particular your comments about Commissioner
23 Scott's enviable intelligence. As someone who's envious of
24 her intelligence, I concur.

25 But I just want to speak briefly to the diversity

1 question that you raised. I mean we at the Energy
2 Commission really need your help, and everyone in this
3 room's help, in bringing us top talent here. We're only as
4 good as our ability to recruit good staff. And yesterday
5 Rob Oglesby and I were at UC Merced talking to a number of
6 deans there, trying to get their help in bringing in top
7 talent.

8 We have something like 50 openings now, I think
9 at the Commission, in that neighborhood. And I just wanted
10 to reemphasize all of us on the dais here share the goal of
11 making the Energy Commission the destination agency for top
12 talent. And I just want to invite your help on that. And
13 thank you for all your good work; happy to support this
14 project.

15 COMMISSIONER SCOTT: I move approval of Item 8.

16 COMMISSIONER HOCHSCHILD: I'll second.

17 CHAIRMAN WEISENMILLER: All those in favor?

18 (Ayes)

19 CHAIRMAN WEISENMILLER: So Item 8 also passes
20 five to zero.

21 Commissioners at this point we have two more
22 items on ARFPT, 9 and 10, which I think we should cover.
23 We also have a member from the public here on 10.

24 We have another member of the public here on 21,
25 so my hope is we could cover those and then do lunch.

1 (Colloquy between Board Members)

2 CHAIRMAN WEISENMILLER: Yeah, we'll call that 9B,
3 excuse me. Yeah, that's right. You're going to recuse --
4 So we're going to split up 9 into everything but B.

5 So actually why don't we flip? We can do 10
6 first, then 9, and then we'll do 21.

7 So Bob, I'm assuming we have people here for 21?
8 Staff?

9 (Colloquy between Board Members and staff)

10 CHAIRMAN WEISENMILLER: So let's do 10 and then
11 we'll do 9 and then we'll split 9 up and then we'll do 21,
12 okay?

13 Okay. So staff let's go to the Advanced Vehicle
14 Technology Manufacturing PON. Darren, please?

15 MR. NGUYEN: Good morning commissioners. My name
16 is Darren Nguyen, from the Fuels and Transportation
17 Division. I am seeking approval for three agreements for a
18 total of \$8,990,780 million resulting from the
19 manufacturing PON-14-604.

20 The purpose of this solicitation is to encourage
21 the manufacturing of alternative fuel vehicles and vehicle
22 components in California that can significantly reduce
23 greenhouse gas emissions, displaced petroleum fuel demands,
24 and stimulate economic development.

25 The following three projects will develop

1 advanced vehicle technology manufacturing facilities in
2 California that will produce zero, near zero emission
3 vehicles, or zero emission vehicle components.

4 For Item 10a Proterra plans to build 140 all
5 electric, zero-emission buses annually by the project's end
6 term. The project team will also provide more than \$5.4
7 million in matched funds.

8 For Item 10b, TransPower projects the demand for
9 the components being manufactured will reach 100 class 8
10 trucks per year by 2017. And the project's team will
11 provide more than \$3.5 million in matched funds.

12 And for Item 10c, Efficient DriveTrains
13 components will increase production capacity of light-duty,
14 medium-duty and heavy-duty vehicle conversions to
15 approximately 2,000 vehicles annually. And the project
16 team will provide more than \$3.8 million in match funds.

17 The benefits of these projects are substantial
18 reductions in GHG emissions and support of ARFVTP program
19 goals.

20 Thank you for your consideration of these items.
21 And with that, I would like to introduce Claire van Zuiden
22 representing Proterra and Leonard Fahreddin from Efficient
23 DriveTrains. Claire?

24 MS. VAN ZUIDEN: Great, thank you

25 Thank you, Chairman Weisenmiller and

1 Commissioners. My name's Claire van Zuiden. And on
2 behalf of Proterra we're here to thank the Energy
3 Commission for your important investment to help accelerate
4 the development and construction of Proterra's state-of-
5 the-art West Coast zero emission bus manufacturing
6 facility.

7 For those that are not familiar with Proterra
8 they're currently headquartered and have their
9 manufacturing facility in South Carolina. And so this is
10 an opportunity for California to have the expansion
11 facility here that will serve the entire West Coast. So
12 that would be California, Oregon, Washington and also
13 Canada.

14 We're excited to expand the manufacturing to
15 California and look forward to being a growing part of
16 achieving California's leading environmental policies,
17 including AB 32, the Governor's Action Plan for 1.5 million
18 zero emission vehicles by 2025, the low-carbon fuel
19 standard, the Governor's goal to reduce petroleum use by 50
20 percent by 2030, as well as the AB 118 and 88 Program.

21 Today's Energy Commission investment provides a
22 strong spark to accelerate the wide-spread deployment and
23 adoption of zero emission busses. We're honored to partner
24 with the California Energy Commission to expand California
25 manufacturing.

1 The new facility will provide good jobs and will
2 produce state-of-the-art zero emission busses that will
3 clean the air in the communities throughout California and
4 beyond, substantially reducing greenhouse gas emissions and
5 offering zero emission technology that's accessible to
6 everyone.

7 In total, the new facility in the City of
8 Industry will manufacture and deploy more than 420 vehicles
9 within four years, reducing more than 200 million pounds of
10 CO2, and displacing as much as 54 million gallons of diesel
11 over the vehicle's lifetime.

12 The deployment of these heavy-duty zero emission
13 vehicles will support the state in achieving their
14 aggressive environmental goals and will provide the
15 opportunity for Californians to ride in an electric vehicle
16 and realize the health and other associated benefits.

17 In addition to all the environmental benefits,
18 the new manufacturing facility will provide more than 70
19 new direct jobs in the economically distressed communities
20 of the San Gabriel Valley.

21 Again, we want to thank the California Energy
22 Commission and especially recognize the hard work and
23 accomplishment of Energy Commission staff on this and other
24 advanced transportation projects.

25 We look forward to joining California's growing

1 base of advanced transportation manufacturing. Thank you.

2 CHAIRMAN WEISENMILLER: Thank you.

3 Please?

4 MR. FAHREDDIN: Good morning. My name is Leonard
5 Fahreddin. I'm the Director of Operations at Efficient
6 DriveTrains. I want to thank the Energy Commission and the
7 staff here for the opportunity to participate in this
8 funding opportunity, and also for the award.

9 Efficient DriveTrains is a California-based
10 company. We have been here for over eight years now. And
11 Efficient DriveTrains develop and manufacture zero emission
12 drivetrains with a range extender options for light-duty,
13 medium-duty and heavy-duty applications. This funding
14 opportunity will allow us to expand our manufacturing
15 facility in Milpitas area. And will produce a wide range
16 of zero emission power trains.

17 The support here in California will allow us to
18 grow local jobs in the communities. And expand our options
19 to provide zero emission drivetrains to the market.

20 I want to thank you again for the opportunity.

21 CHAIRMAN WEISENMILLER: I'd like to thank both of
22 you for being here.

23 Commissioner Scott, are there any other questions
24 or comments on this? Commissioner Scott.

25 COMMISSIONER SCOTT: This is just another

1 exciting set of projects, I think. Questions?

2 I will move approval of Item 10.

3 COMMISSIONER DOUGLAS: Second.

4 CHAIRMAN WEISENMILLER: All those in favor?

5 (Ayes)

6 Item 10 passes five to zero, thank you.

7 Let's go back to Item Number 9 Zero Emission

8 Vehicle Readiness.

9 Lindsee, please?

10 MR. TANIMOTO: Yes, good morning Chair and
11 Commissioners. My name is Lindsee Tanimoto, I'm with the
12 Emerging Fuels and Technologies Office.

13 MS. VACCARO: Excuse me, Chair Weisenmiller, I
14 just wanted to make sure that we're putting on the record
15 how we're splitting up Item 9, because Commissioner
16 McAllister --

17 COMMISSIONER MCALLISTER: Well him -- or wait, oh
18 no just me.

19 CHAIRMAN WEISENMILLER: Okay. So do we need to
20 split up the presentation?

21 MS. VACCARO: I think the overall presentation,
22 but when he -- if there's a specific discussion of item I
23 believe that Commissioner McAllister needs to make sure
24 that he has the disclosure and the recusal and is not here
25 for the discussion of that particular item.

1 COMMISSIONER MCALLISTER: Maybe what we could do
2 is vote on all of them, but b first and then vote on b?

3 CHAIRMAN WEISENMILLER: No, that's what we'll do,
4 but we just need to make sure if there's any discussion on
5 b that you're recused for that. So split up the discussion
6 also.

7 MS. VACCARO: Thank you.

8 CHAIRMAN WEISENMILLER: Thanks.

9 MR. TANIMOTO: Okay. And I'm with the Fuels and
10 Transportation Division. Staff is seeking the approval
11 today of six (indiscernible) projects in the notice of
12 proposed awards that was published on January 16th, 2015.

13 This solicitation was oversubscribed by \$4.4
14 million.

15 These regional and local planning grants will
16 address either plug-in or electric vehicles as well as
17 fuel-cell electric vehicles. The recipients are located
18 throughout California. The total amount of the proposed
19 funding is \$1,529,445.

20 So I'm going to discuss my little discussion on
21 Item B, correct? I won't go with that.

22 The Santa Barbara County Air Pollution Control
23 District along with the City and County of San Francisco
24 will address planning on their hydrogen infrastructure
25 during their readiness plans.

1 And I just had one little sentence on the San
2 Joaquin Valley, so should I wait?

3 CHAIRMAN WEISENMILLER: Yes, please wait on the
4 sentence on b) until after we vote on all the other items
5 and we'll come back to it.

6 MR. TANIMOTO: Okay. So great, so staff is
7 seeking your approval of resolution Items 9a, I guess c, d,
8 e and f. Thanks for your considerations on these plans and
9 I'll wait to talk about Item b after you guys vote.

10 CHAIRMAN WEISENMILLER: Okay, please.

11 COMMISSIONER MCALLISTER: I just want to make
12 sure you know I'm in the room in case there's a cliffhanger
13 vote.

14 CHAIRMAN WEISENMILLER: Okay. So Commissioner
15 Scott?

16 COMMISSIONER SCOTT: We heard a little bit from I
17 believe it was Eileen and potentially Bonnie earlier about
18 the readiness plans. You know, the readiness plans just
19 help us to help the local folks be ready. And they have
20 often times a lot of insight, of course, into where the
21 best places for the charging infrastructure are, where the
22 best places for the hydrogen and fuel cell infrastructure
23 are. And so it's a great to have an opportunity to be able
24 to have the Energy Commission and the local planners work
25 together. And so I am in support of these items. And if

1 there aren't questions I will --

2 CHAIRMAN WEISENMILLER: I was going to make a
3 statement on those -- Commissioner McAllister?

4 COMMISSIONER MCALLISTER: Yeah, I wanted to just
5 -- this is an issue that, you know, having been down in San
6 Diego in sort of the early phases of, "Okay, where are we
7 going to put all these charging stations?" and sort of
8 really the regional planning effort that is necessary and
9 is sort of multi-agency, state, local, you know, state,
10 county, city.

11 All of those issues are just -- early on I think
12 there was just a lot of confusion about who was going to do
13 what and what tools people had at their disposal. And just
14 a lot of uncertainty and I think this concerted effort to
15 apply or to get some resources to this thought process is
16 going to pay off in spades, because we have a lot of
17 expertise out there on land use planning and bids movement
18 and transportation generally that needs to be applied to
19 this locational work. And I wanted to be here for this
20 vote to make that point.

21 CHAIRMAN WEISENMILLER: I was going to channel
22 President Picker somewhat on this issue.

23 Obviously, at this point standing before the PUC
24 are a number of proposals from utilities to build charging
25 infrastructure. And when President Picker was out visiting

1 local governments (indiscernible) I mean, he did ask the
2 question of were they thinking about where to put charging
3 infrastructure? And got sort of a blank stare from the 70
4 and that left him very concerned; that his presumption is
5 that when the utilities do charging infrastructure they
6 think, "Well, where does it fit on the grid?" That
7 presumably they've got the ability for that spot, so
8 they'll provide charging on that (indiscernible)
9 connections.

10 But we really need to connect it in to the
11 various local government planning groups that think about
12 transportation, presumably have much more insight on where
13 you want to put the charger on point A or point B. And so
14 to make sure that these ultimately turn out to be useful.

15 So these grants have at least a potential for
16 people to provide a lot of thought on a local planning
17 level of where the chargers should go, which can then feed
18 in, in some process that we'll talk about a little bit,
19 into the PUC. So they're comfortable that in fact we're
20 making the right investments.

21 COMMISSIONER SCOTT: And feedback to the Energy
22 Commission as well as we're thinking about where we want to
23 make our investments.

24 CHAIRMAN WEISENMILLER: Exactly, so this is
25 really important at this point, because they are starting

1 to launch some major efforts on infrastructure investment.

2 COMMISSIONER SCOTT: Okay. So I will move
3 approval of Item 9a, c, d, e and f.

4 COMMISSIONER HOCHSCHILD: Second.

5 CHAIRMAN WEISENMILLER: All those in favor?

6 (Ayes)

7 So this is five to zero.

8 Hold on a second, Commissioner McAllister is
9 going to recuse himself.

10 MR. TANIMOTO: Yeah, don't go far. I've only got
11 one sentence.

12 CHAIRMAN WEISENMILLER: We'll have a lengthy
13 conversation on the one sentence. He's asked me -- okay.

14 MR. TANIMOTO: All right, staff is seeking
15 approval of Item 9b and this is for the San Joaquin Valley
16 Air Pollution Control District. And they will be focusing
17 their plug-in electricity vehicle plan on disadvantaged
18 communities in the Valley. And like I said it's for
19 \$300,000 that we're seeking your approval of this
20 Resolution 9b.

21 COMMISSIONER SCOTT: I move approval of Item --

22 CHAIRMAN WEISENMILLER: Hang on one second. I
23 was going to just make the observation that when we look
24 about where the most severe air quality issues are in
25 California, it's sort of the South Coast and San Joaquin.

1 So it's particularly important from an air quality
2 perspective to have this plan going on in San Joaquin. And
3 as you say also it really helps from the disadvantaged
4 communities' perspective, so now?

5 COMMISSIONER SCOTT: I agree. I will move
6 approval of Item 9b.

7 COMMISSIONER HOCHSCHILD: Second.

8 CHAIRMAN WEISENMILLER: All those in favor?

9 (Ayes)

10 CHAIRMAN WEISENMILLER: So this passes four to
11 zero. Commissioner McAllister had recused himself.

12 So now, let's go on to 21 and again I just want
13 to make sure we're accommodating the public on this one, so
14 demonstrating bioenergy solutions that support California's
15 industries, the environment and the grid, PON-14-305. Gina
16 Barkalow?

17 MS. BARKALOW: Hi. Hello, Commissioners. My
18 name is Gina Barkalow and I am the Solicitation Manager for
19 PON 14-305. The purpose of this solicitation is to fund
20 demonstration and deployment projects that demonstrate and
21 appraise the operational and performance characteristics of
22 pre-commercial biomass conversion technologies, generation
23 systems, and development strategies.

24 This solicitation also fulfills the CPUC
25 requirement that the EPIC Program provide a minimum of 20

1 percent or \$27 million of technology demonstration and
2 deployment funds from the first Investment Plan for biomass
3 to electricity projects.

4 Twenty-three applications were received, nineteen
5 of these applications passed Stage 1 screening divided into
6 four distinct project groups. Out of these nine proposals
7 nine received passing scores. All of them are recommended
8 for funding for a total awarded amount of just over \$29
9 million. Total match funding is over 24 million.

10 The projects from this solicitation include a
11 diverse range of bioenergy technologies as well as
12 strategies to make bioenergy projects more economical.
13 They are located in Northern, Central and Southern
14 California. Two of these projects were approved for
15 funding at the March business meeting. Today I'm
16 recommending funding for six more.

17 The recommended projects for today include:

18 A project with UC Irvine to demonstrate a low
19 emission gradual oxidizing technology for generation of
20 electricity from low quality fuel gas generated by
21 landfills. The project is a public-private partnership
22 involving UC Irvine, Enercorp, and Environ Strategies.

23 In addition, the project will be carried out in
24 collaboration with Orange County Recycling and Water
25 utilization low-grade biogas from the closed Santiago

1 Canyon landfill, which is currently collecting and flaring
2 the landfill gas.

3 A project with the Watershed Research and
4 Training Center to install and demonstrate a commercial
5 scale gasification to electricity facility that converts
6 wood waste from forest management activities to renewable
7 electricity while providing reduced fire risk, watershed
8 protection, improved air quality and other environmental
9 benefits and local jobs. The project is located in North
10 Fork, California.

11 A project with Biogas and Electric to demonstrate
12 a low-cost wet scrubber technology with a biogas fired lean
13 burn engine at a municipal wastewater treatment plant with
14 the South Coast Air Quality Management District in Palm
15 Springs.

16 A project with Lawrence Berkeley National
17 Laboratory. The project will fund research to enable
18 environmentally and economically sustainable deployment of
19 technology that transforms organic municipal solid waste
20 into heat, electricity, and compost via dry anaerobic
21 digestion. The project is located in San Jose.

22 A project with Kennedy Jenks Consultants to
23 demonstrate a new technology to effectively pre-process
24 food waste and to develop a new strategy to lower mass of
25 dewatered cake to improve the economic viability of co-

1 digestion and biogas energy production at Silicon Valley
2 Clean Water's wastewater treatment plant in Redwood City.

3 And finally, a project with Organic Energy
4 Solutions to develop an innovative 100-ton-per-day
5 anaerobic digester system that will convert organic waste
6 from a grocery store distribution center and from
7 wastewater to clean renewable electricity integrated with
8 peak load strategies for the grid at a wastewater
9 pretreatment facility in San Bernardino.

10 These projects will help develop pathways to
11 assist California in achieving its renewable energy and
12 greenhouse gas reduction goals while providing benefits to
13 California Investor Owned Utility rate payers consistent
14 with the EPIC guiding principles as well as supporting
15 California's industries, the environment and the grid.

16 Staff recommends approval of these proposed
17 projects. I'm happy to address any questions you may have
18 and the contract agreement managers are on hand as well.

19 CHAIRMAN WEISENMILLER: Thank you.

20 I believe we also have a member of the public,
21 Gregory Stangl, from North Fork? Please, come on up.

22 MR. STANGL: Hi, good afternoon. Greg Stangl
23 with Phoenix Energy. I'm here on behalf of our joint
24 venture with the town of North Fork, North Fork Community
25 Power.

1 Again, just to tell you how thankful we are.
2 We've been working on this model of community finance of
3 power in the forest for pretty much back since 1999. So
4 it's fabulous to see that this is really going to happen
5 and we'd like to thank you and certainly to thank the staff
6 that we've been working with to make that happen.

7 The town of North Fork, they lost their mill in
8 '96 and the jobs with that. They've got about 25 percent
9 unemployment up there and a large group of the people
10 living below the poverty line. So I'd like to thank you
11 personally for not forgetting the forest and not forgetting
12 our rural communities. And we're really hoping that this
13 project is going to be that model. There's about 15 other
14 communities right behind us from Wilseyville, Camptonville,
15 Nevada County all working on these types of projects. And
16 we're hoping you'll help them out as well. Thank you so
17 much.

18 CHAIRMAN WEISENMILLER: Thank you.

19 Commissioners, first is there anyone else in the
20 room or on the line on Item 21?

21 Please come on up. So let's start the discussion
22 on this item? Or why don't you disclose, yeah okay please.

23 COMMISSIONER MCALLISTER: So we missed it -- oh,
24 sorry, we don't need to okay.

25 We're conferring over whether Commissioner

1 Douglas and I might need to disclose our UC affiliation
2 even though it's rather tenuous. But in this case it's not
3 even UC Davis Campus, but stay tuned.

4 (Colloquy between Commissioners)

5 CHAIRMAN WEISENMILLER: So Commissioner Scott?
6 Actually excuse me, this is mine, we got out of order.

7 We're not even through the day yet and already
8 we're already getting -- so it is definitely lunch time.

9 Anyway, definitely this is one of -- the good
10 news is today you're going to see a lot of EPIC contracts
11 as you know. And this is certainly one of the first of the
12 those.

13 One of the things that was certainly in the first
14 Investment Plan was a focus on bioenergy. And so again,
15 it's gratifying to see these come together and I think as
16 we go through the day you're going to see a lot of very
17 interesting projects, but this is sort of the first of our
18 discussion today. I think it's one of those great
19 projects, certainly I thank the staff for pushing this.

20 And it's really good when we can reach out to the
21 communities and try to provide some economic developments
22 and jobs there.

23 COMMISSIONER SCOTT: I would just love to ask a
24 question of our visitor. Sorry, I forgot your name, but I
25 appreciate your enthusiasm for the project and I just

1 wonder what the timeline looks like for that and -- oh,
2 Greg.

3 MR. STANGL: Yeah, well we plan on ordering the
4 long lead time pieces of equipment. The gas fire and the
5 engine on or about I'm told May 19th is the day that that
6 will first become available. That is a fairly long
7 procurement cycle, but we should have that all on the
8 ground with construction starting probably late in the year
9 fourth quarter.

10 The timing of when you go to full-time operation
11 is really based on the SB 1122 Program. Without really
12 casting aspersions that is seeming to stretch out a little
13 longer than we had hoped, but we do believe that is really,
14 really, really nearing the completion. And those contracts
15 will start coming out, but so construction we should have
16 the equipment on the ground and ready to test we hope by
17 first quarter of next year, fourth quarter this year start.

18 And then when we might push electricity to the
19 grid is really going to depend on the CTEC (phonetic) and
20 when that tariff gets approved.

21 COMMISSIONER SCOTT: Great, thanks for those
22 additional details. Thank you for the answer.

23 CHAIRMAN WEISENMILLER: Yes, and (indiscernible)
24 connect with PG&E?

25 MR. STANGL: Yes, we do.

1 CHAIRMAN WEISENMILLER: Actually Valerie's not
2 here, or else you could try to pin her down if she was
3 here.

4 MR. STANGL: I appreciate that opportunity.
5 Anything else?

6 COMMISSIONER MCALLISTER: Yeah, I just want to
7 put a little bit of context here. I mean, it's so -- we
8 have a fortunate position I think to be aware of a lot of
9 things that are going on across the energy sector, all the
10 energy sectors collectively. And, you know, bio generally
11 is one of those areas that's tremendously underutilized,
12 but is a potential resource for a massive state that has a
13 big agricultural presence and including sort of forestry
14 and that.

15 So this potentially I think on the transportation
16 side, on the fuel side, and on the electricity side it's
17 part of the diversification and the renewables plan and
18 really important to be making progress on this front as
19 well. A unique set of technologies, a unique set of
20 challenges, and I think it's really nice to see that as a
21 solid piece of the puzzle that we're working on getting
22 into running shape.

23 So I'm supportive of this item. Okay. So I'll
24 move Item 21. Oh, sorry, looks like we have a comment.

25 CHAIRMAN WEISENMILLER: If you'll hold on one

1 second, we have someone on the line. Michele Wong from
2 CleanWorld.

3 MS. WONG: Yes?

4 CHAIRMAN WEISENMILLER: Please, go ahead.

5 MS. WONG: Hello?

6 CHAIRMAN WEISENMILLER: Yes?

7 MS. WONG: Hi, I just wanted to thank the
8 Commission for your support of these bioenergy projects.
9 CleanWorld is a subcontractor on the project with Organic
10 Energy Solutions down in San Bernardino. And we've been
11 honored to have been selected for helping to advance our
12 technologies on several other projects including the
13 Sacramento BioDigester.

14 And I just wanted to let you know that we really
15 appreciate the support of these technologies to get them to
16 commercial states, because without the support of the
17 Energy Commission and the funds that we've received both in
18 the past and this time, these technologies would not be at
19 the state that they are.

20 CHAIRMAN WEISENMILLER: Thank you.

21 Commissioners, any questions or comments?

22 COMMISSIONER MCALLISTER: All right, I move Item
23 21.

24 COMMISSIONER SCOTT: Second.

25 CHAIRMAN WEISENMILLER: All those in favor?

1 (Ayes)

2 CHAIRMAN WEISENMILLER: This also passes five to
3 zero. Thank you, Gina.

4 MS. BARKALOW: Thank you.

5 CHAIRMAN WEISENMILLER: Okay. Commissioners,
6 actually if you will indulge me we have other members of
7 the public who are here, who actually have a preference for
8 coming up before lunch as opposed to after lunch. And so I
9 wanted to take up Item 20 and we're checking to see if we
10 can do that on 13 also. But please, 20 come on up.

11 So this is the advancing cleaner, less costly,
12 more reliable distributed generation to enable customer
13 solutions and zero-net energy communities. Prab, please?

14 MR. SETHI: Good morning, Commissioners. My name
15 is Prab Sethi, and I am the Solicitation Manager for the
16 PON-14-303.

17 I will be presenting 6 of 12 projects recommended
18 for funding under this PON to advance distributed
19 generation, including modular bioenergy systems for forest
20 biomass, waste-to-energy systems, smart inverters for high
21 penetration PV, and advanced distributed PV systems. Four
22 projects were previously approved in the March Business
23 meeting.

24 The first project is with Interra Energy. This
25 project will develop an advanced modular reciprocating

1 reactor bioenergy technology to generate a high quality
2 biomethane gas, which can be directly used in existing
3 engine and turbines, along with high carbon biochar product
4 for use in soil amendment, and water and gas purification.
5 This project will demonstrate 7.2 ton per hour, 2.54
6 megawatt (MW) pilot-scale system at the City of San Benito
7 Resource Recovery Park.

8 This first phase of this project involves design,
9 test plan development, research and development activities,
10 and minor physical upgrades on an existing reactor

11 The second project is with the Lawrence Berkeley
12 National Lab. The purpose of the agreement is to install a
13 pilot integrated, advanced PV and storage system, and
14 develop innovative control algorithms to test net zero
15 energy capabilities of a test cell.

16 The project includes a 13-to-15 kilowatt PV
17 electric generating system and a 14 kW battery storage
18 installation. And it also leverages ARPA-E project to
19 accelerate the advanced simulation tools and microphaser
20 technology.

21 The third project is the SunSpec Alliance. This
22 project will develop an open standard communication
23 interface for smart inverter technology. And will test and
24 demonstrate the ability of smart inverters to support PV
25 renewable energy with energy storage. The scope of work

1 includes development of a test framework and compliance
2 testing of smart inverters in accordance with the CPUC Rule
3 21 Smart Inverter Working Group recommendations.

4 The fourth project is with Taylor Energy. This
5 project will convert Refuse Derived Biomass into clean
6 biogas. This will be achieved by Thermal-Catalytic
7 gasification, reforming processes and Pulse Detonation
8 Technology. This project will evaluate the results, and
9 provide engineering data to design a 30 ton per day plant
10 generating 1-MW of electric power.

11 The fifth project is with the Southern California
12 Gas Company. The typical conversion process of dairy
13 manure to renewable natural gas requires an anaerobic
14 digester to produce biogas and utilize cleanup technology
15 in approximately 20 days.

16 Southern California Gas Company will use
17 hydrothermal processing, which converts manure into RNG via
18 high temperature pyrolysis, which takes less than an hour
19 depending on scale. The renewable natural gas will be
20 stored and withdrawn as needed for distribution, including
21 load following, to fuel cells or combined cycle plants for
22 electric generation. This project will use concentrating
23 solar power for the required high heat input.

24 The last and the sixth project is with the All
25 Power Labs Inc. The purpose of this project is to fund the

1 design, deployment and testing of 150 kilowatt modular
2 mobile biomass gasifier technology that can convert forest
3 slash into renewable energy. The gasifier will meet
4 applicable air quality standards.

5 The results of the demonstration will be analyzed
6 to determine optimal siting to enhance grid stability, and
7 impacts of monetizing current forest waste as fuel on
8 ability to increase forest thinning and lower wildfire risk

9 I request the approval of these six projects. T
10 Thank you.

11 CHAIRMAN WEISENMILLER: Thank you.

12 I'll turn now to Ronna Reed of North American
13 RePower.

14 MS. REED: Good afternoon, thank you for allowing
15 me to delay your lunch. My name is Ronna Reed, I'm a
16 private citizen, but I'm here on behalf of Dr. John Reed
17 who is my little brother first of all and most importantly.
18 But he's also the CEO of North American Repower. He's very
19 disappointed that he couldn't be here today, but he asked
20 me to come here and tell you how delighted everyone is at
21 North American Repower with this grant.

22 The goal is big. They want to convert diesel
23 engines throughout California, Central Valley, to renewable
24 natural gas through the use of converted diesel engines.
25 This grant will have an immediate and big impact on the

1 ability to optimize tests and demonstrate the ignition
2 systems. So John asked me to thank you all, Commission and
3 staff, for your hard work and support of everyone in the
4 effort to get everybody using renewable natural gas. Thank
5 you very much.

6 CHAIRMAN WEISENMILLER: Great, thank you.

7 And again, anyone else? Please.

8 MR. TANSY: Good afternoon, everyone. My name is
9 Tom Tansy. I'm the Chairman of the Sunspec Alliance. And
10 again, I'm pleased to be here as well.

11 On behalf of the Sunspec Alliance and the nine
12 California-based companies participating in this project
13 plus the University of California San Diego I want to
14 really thank you for funding this very important project.
15 The project will demonstrate California's innovation and
16 leadership and smart energy and will show that solar power
17 with energy storage can cost effectively address
18 California's grid-balancing challenges, which are
19 significant.

20 What's more, the project will demonstrate how
21 standards-based solutions that integrate intelligence and
22 communication abilities can open up new opportunities for
23 suppliers and California consumers alike. The standards-
24 based approach that we're taking, which is a hallmark of
25 other California industries such as computing and

1 telecommunication I might add, are promises to yield an
2 energy economy that is even greater in size, scale and
3 impact. And like these other industries, this project both
4 leverages and contributes to important international
5 research.

6 In this case the research being pursued by the
7 Smart Grid International Research Facilities Network, yes
8 that's a mouthful, also known as SGIRFN. This initiative
9 is led by Sandia National Labs and is contributed to by
10 Lawrence Berkeley Lab here in our state. This
11 collaboration will yield positive results for the entire
12 industry and also for the great state of California.

13 In closing I really just want to thank you
14 personally for entrusting the Sunspec Alliance to lead this
15 important work and we look forward to taking on this
16 important project. Thank you.

17 CHAIRMAN WEISENMILLER: Yeah, thank you. Thanks
18 for being here. I was going to say one of the things,
19 which we need to do is make sure that people sort of
20 understand the (indiscernible) in all that, but we're
21 certainly glad you got your chance to get your input on
22 that.

23 So let's go back to -- so the bottom line is we
24 have more reinforcement on 21, so let's go on now to 13. I
25 was going to say again, I've looked at these and now I was

1 just going -- well, we all voted on 21, right? Through
2 113 -- no, 20, excuse me 20, yeah sorry.

3 So on 20 I was going to say I've gone through
4 these and one of the things that's really interesting with
5 the SoCal Gas one, is that's a really interesting
6 combination of technologies. That I really appreciate
7 their creativity in putting this together, but again I
8 would have to say all of these represent a lot of very
9 interesting stuff. And again, I'd like to sort of
10 encourage --

11 Now in terms of 20 let's also go to Tim
12 (indiscernible) -- Excuse me, sorry, we're on 18. Yeah,
13 right we're still on 20. I'm just trying to figure out if
14 this is 20a.

15 COMMISSIONER MCALLISTER: We're skipping all over
16 the place.

17 CHAIRMAN WEISENMILLER: Skipping all over the
18 place indeed, confused. Yeah, we need a break soon.

19 So anyway can I have a motion on 20.

20 COMMISSIONER DOUGLAS: Approval of Item 20.

21 COMMISSIONER MCALLISTER: I'll second.

22 CHAIRMAN WEISENMILLER: All those in favor?

23 (Ayes)

24 CHAIRMAN WEISENMILLER: So 20 is done.

25 MS. VACCARO: Chair Weisenmiller?

1 CHAIRMAN WEISENMILLER: Yes?

2 MS. VACCARO: Just for the clarity of the record
3 I think you made this point, but Ms. Reed, when she spoke I
4 believe she was speaking to Item 13. And so if she's not
5 here when we go back to that item (indiscernible)

6 CHAIRMAN WEISENMILLER: Then I'll go to 13, okay.

7 (Colloquy off mic)

8 COMMISSIONER MCALLISTER: I thought that was
9 actually --

10 CHAIRMAN WEISENMILLER: No, it is 13.

11 COMMISSIONER MCALLISTER: Is it?

12 CHAIRMAN WEISENMILLER: It is 13, okay. So we're
13 really confused, but anyway we're getting to a break time
14 shortly. So 13, please.

15 MS. MAGANA: Good afternoon, Commissioners. I'm
16 Pilar Magana with the Research and Development Division and
17 I'm here to present five items for consideration.

18 The first four projects were selected under a
19 competitive solicitation for the development of advanced
20 ignition systems for natural gas vehicles. This
21 solicitation sought proposals to support the applied
22 research and development of advanced high-energy ignition
23 systems capable of overcoming the challenges of igniting
24 natural gas under high boost pressures with heavy EGR
25 first-spark ignited natural gas engines -- Class 3 through

118

1 8 engines -- as a barrier affects OEM's ability to
2 decrease fuel consumption and increase engine performance
3 as well as address expended maintenance options.

4 The first project is with North American RePower
5 and North American RePower is going to optimize and test
6 and demonstrate two advanced ignition systems for heavy
7 duty, natural gas engines. The first is an advanced corona
8 ignition system developed by Federal-Mogul and the second
9 is a variable output ignition coil with electronics system,
10 also known as a VOICE system, developed by Delphi.

11 And these projects are looking to increase the
12 levels of exhaust gas recirculation tolerated by an engine
13 as well as improve the ignition component life. They will
14 be aiming to meet or exceed a 90 percent reduction in NOx
15 emissions as well as improve the fuel economy by up to 18
16 percent.

17 These two ignition systems will be integrated
18 into Class 8 freightliner trucks for a demonstration and a
19 comparison of the two ignition systems. And they will be
20 partnering with Silum (phonetic) and McLaren Performance
21 Technologies as well. They will be providing approximately
22 \$1.4 million in matched funding.

23 The second project is with Gas Technology
24 Institute. GTI will be partnering with Westport Fuel
25 Systems and BorgWarner Barao (phonetic) to develop and test

1 a high-frequency corona discharge ignition system. It
2 will be to determine the benefits of this corona ignition
3 system at both part-load and peak-load when exhaust gas
4 recirculation is at its highest. They will also be looking
5 to reduce ignition delay, stabilize combustion and reduce
6 startling and pumping losses.

7 They will also be aiming to reduce NOx by 90
8 percent as well as reduce GHG emissions and improve POE
9 economy by about 5 percent. And they will be providing
10 approximately about \$400,000 in matched funding.

11 The third project is also with GTI and they will
12 be partnering with Enerpulse to develop two advanced high-
13 energy plasma ignition systems that are capable of
14 effectively and efficiently igniting natural gas engines
15 for heavy-duty vehicles. And they are looking at a high-
16 frequency discharge ignition system as well as a pulse
17 plasma discharge ignition system. And they will
18 demonstrate that when these two systems are integrated with
19 cooled exhaust gas recirculation in a three-way catalyst
20 system on an 8.8 liter engine that they can reach or exceed
21 the 90 percent NOx emission reduction.

22 They will also be decreasing other emissions and
23 improving fuel economy as well as improving the engine
24 stability. And they will be providing approximately
25 \$300,000 in matched funding.

1 The fourth project is with Olson Ecologic Engine
2 Testing Laboratories and they will be developing a
3 turbulent jet-ignition system with prechambers in a natural
4 gas-fueled engine suitable for on-road heavy-duty vehicles.
5 They will demonstrate several configurations of the
6 prechambers in the ignition system for a Class 8 vehicle.
7 And they will be using advanced fueled and unfueled spark-
8 ignited prechambers for natural gas combustion at high
9 dilutions.

10 They will be using a Detroit Diesel 60 Series
11 Engine converted to natural gas. They are also looking to
12 reduce NOx by up to 90 percent and particulate matter by up
13 to 80 percent. And they will be partnering with Michigan
14 State University, Rail Propulsion Systems and Omnitek
15 Engineering and will be providing approximately \$900,000 in
16 matched funding.

17 And thank you for your consideration. I'd be
18 happy to answer any questions.

19 CHAIRMAN WEISENMILLER: Great, thank you.

20 First, any other comments from anyone in the room
21 or on the line on this, on Item 13?

22 If not, again I would say this is going through
23 the -- this is funded from the PEIR Natural Gas funding.
24 So certainly going through the review of this we've just
25 heard (indiscernible) for North American RePower, which I

1 think all of us or at least many of us have little
2 brothers. So anyway, on that note along with the science
3 it's a very good project, I think. So any questions or
4 comments on this?

5 COMMISSIONER MCALLISTER: I just want to indicate
6 just how important it is and you've done a really good job.
7 And the process is so robust. I think these have been very
8 well vetted and the Chair is the lead, so no doubt that
9 they've been examined really in detail. But the
10 combination of efficiency and air quality -- you know, a
11 lot of these projects are making sure that all the I's are
12 dotted.

13 It's not just about energy efficiency, but it's
14 also about making sure that the air quality regs are met
15 and that we're pushing the envelope on that as well. And
16 that's super, super important. You know we can't sacrifice
17 one area for the other, so that's all about getting
18 commercial technologies available. So I really support
19 these projects.

20 COMMISSIONER SCOTT: I would just add to that I
21 guess, but in the advanced natural gas engine space --
22 especially with some of these bigger engines, like the
23 Class 7 and 8 engines we don't have a lot of options right
24 now in terms of battery electric technology, for example.
25 Because the payload at that point would be so heavy that

1 you'd just be pulling the batteries and not what you were
2 trying to bring with you. And so in this space it is
3 important to continue to look at what our near-zero
4 emission options are.

5 CHAIRMAN WEISENMILLER: Go for it.

6 COMMISSIONER SCOTT: I move approval of Item 13.

7 COMMISSIONER MCALLISTER: I'll second.

8 CHAIRMAN WEISENMILLER: All those in favor?

9 (Ayes)

10 CHAIRMAN WEISENMILLER: Item 13 passes five to
11 zero, thank you.

12 So now we're going to be adjourned until, let's
13 see, 1:45? Great.

14 (Break at 12:45)

15 (Reconvene at 1:46)

16 CHAIRMAN WEISENMILLER: Let's go back on the
17 record. Hopefully, everyone has had a decent lunch and
18 some coffee. At least, I've had coffee.

19 So let's go to 11, Chico Unified School District,
20 which is William please.

21 MR. PFANNER: Good afternoon, Commissioners. I
22 am Bill Pfanner. I'm a supervisor in the Local Assistance
23 and Finance Office. And I'm here today representing a
24 proposed resolution approving agreement with the Chico
25 Unified School District for a \$3 million loan at 0 percent

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1 interest to install solar photovoltaic panels at five
2 campuses within Chico Unified School District.

3 The project is estimated to save the District
4 approximately 1.3 million kilowatt hours resulting in an
5 annual energy savings of \$255,407 and reduce greenhouse gas
6 emissions by 447 tons of CO2 equivalent annually. Based on
7 the loan amount and the simple payback, approximately 11.7
8 years, which is in the standards of the Energy Commission,
9 this is an ECCA-Ed Program funded loan.

10 I called the applicant last week and they were
11 not planning to attend the meeting today. They are using
12 this ECCA money in addition to their Prop 39 funding money
13 for school efficiency. So they are very appreciative of
14 the Energy Commission's programs and are anxious to get
15 their energy efficient programs going.

16 I'm here today on behalf of Laura Zaninovich but
17 I can answer questions for you if you have them.

18 CHAIRMAN WEISENMILLER: Thank you.
19 Commissioners, any questions or comments?

20 COMMISSIONER MCALLISTER: So just to be clear
21 this actually is two kinds of Prop 39 money, right? That
22 that funded the ECCA-Ed Program and then the sort of
23 standard grant program that went alongside that all the
24 school districts got.

25 MR. PFANNER: Right.

1 COMMISSIONER MCALLISTER: So the one is, you
2 know, a proactive application and the other is a formula,
3 so they're able to bundle those together and move the
4 project forward. So I think that's a smart thing for them
5 to do and a good thing for them to do, yes.

6 MR. PFANNER: And again, we're not able to take
7 it off the ITC in this deal.

8 COMMISSIONER MCALLISTER: That is my
9 understanding that those are only for commercial and
10 residential projects, not for schools.

11 MR. PFANNER: But PPAs in leases are allowed,
12 right under Prop 39? I'm just -- out of Prop 39 --

13 COMMISSIONER MCALLISTER: Let's see, so there was
14 Marsha. So yeah, there's a little bit of a back story
15 here. And certainly we've worked a lot with the solar
16 industry to make sure that, you know, it's kind of apples
17 to apples across all technologies. And that will be a
18 little bit different between ECCA-Ed and the formula,
19 because the rules are slightly different because of
20 statute. So anyway, go ahead.

21 MS. SMITH: Right. So the --

22 UNIDENTIFIED VOICE: Can you identify yourself
23 please?

24 MS. SMITH: Thank you. I'm Marsha Smith. I
25 manage the local assistance and financing office.

1 These are for school owned photovoltaics and
2 under the loan program, we cannot do power purchase
3 agreements. Under the entitlement program the energy
4 expenditure plan program, we are now able to do power
5 purchase agreements. So what we're bringing today is for a
6 loan and they are not eligible for incentives to go back to
7 your original question.

8 COMMISSIONER HOCHSCHILD: All right, okay. Thank
9 you.

10 COMMISSIONER MCALLISTER: I move Item 11.

11 COMMISSIONER DOUGLAS: Second.

12 CHAIRMAN WEISENMILLER: All those in favor?

13 (Ayes)

14 CHAIRMAN WEISENMILLER: This passes five to
15 zero.

16 MR. PFANNER: Thanks.

17 CHAIRMAN WEISENMILLER: Thank you.

18 Let's go on to Number 12 which is Sylvan Unified School
19 District. This is also ECCA-Ed project funding.

20 MS. ANTONIO: Good afternoon, Commissioners. My
21 name is Marites Antonio. I'm with the Local Assistance And
22 Finance Office staff with the Efficiency Division with Bill
23 Pfanner.

24 Staff is requesting for the Commission to approve
25 a loan to the Sylvan Union School District in Modesto in

1 amount of \$1,799,839. This amount is \$161 less than the
2 \$1.8 million listed on the Agenda.

3 It is a zero percent loan and will be funded
4 through the ECCA-Ed loan program also. The loan will fund
5 energy efficiency measures such as interior and exterior
6 lighting retrofit and HVAC system replacements, the
7 District's eight schools, District's office, central
8 kitchen, and maintenance facility.

9 The project is estimated to save the District
10 approximately \$89,992 annually and is estimated to reduce
11 greenhouse gas emissions by approximately 205 tons of CO2
12 equivalent every year. Based on the loan amount, the
13 simple payback is approximately 20 years. Thank you.

14 CHAIRMAN WEISENMILLER: Thank you.

15 Commissioners, any questions or comments?

16 COMMISSIONER MCALLISTER: Yes. So this is a
17 little bit longer payback than what we're maybe typically
18 seeing. I'm wondering if you can talk a little bit more
19 about what's being funded.

20 And, you know, I think, you know, my view is that
21 longer paybacks can actually be a good thing as long as the
22 financing support staff, just because it lets you do deeper
23 and more capital intensive projects that you might not
24 otherwise be able to do ever, right? But I think, you
25 know, I wanted to get a little bit of an explanation better

1 about what's being funded exactly.

2 MS. ANTONIO: Yeah. It's for the -- let's see
3 there's ten facilities and they are actually doing the
4 lighting retrofits and exterior lighting retrofits with
5 occupancy controls and HVAC systems and that's where the
6 payback kind of is longer, because of their HVAC systems.
7 And we are hoping to receive some rebates down the road to
8 help with payment potentially.

9 COMMISSIONER MCALLISTER: Yeah, so that's another
10 question I guess, so thanks for that. Another question is
11 what's your sense of how successful our programs to fund
12 retrofits in schools are being at coordinating them and
13 taking advantage of the incentives available for the
14 utilities?

15 MS. ANTONIO: The consultants (indiscernible)
16 controls and they're pretty active with helping them secure
17 the rebates. So yeah, I'm pretty confident that --

18 COMMISSIONER MCALLISTER: So this is an above
19 code project? I guess I'm kind of --

20 MS. ANTONIO: I'm sorry?

21 COMMISSIONER MCALLISTER: This is a project
22 that's going above code; is that a fair statement?

23 MS. ANTONIO: Oh, yeah, with the Title 24, yes.

24 COMMISSIONER MCALLISTER: Yeah, exactly.

25 MS. ANTONIO: Yes, yes. And the requirements are

1 tighter, yes.

2 COMMISSIONER MCALLISTER: So and I guess that's
3 how they would go about getting incentives for the piece of
4 the project that's above Title 24.

5 MS. ANTONIO: That's the difference.

6 COMMISSIONER MCALLISTER: That's interesting.
7 Yeah, so it's not like a deep retrofit project that's going
8 to get some very cutting edge technology, yeah.

9 MS. ANTONIO: And like Bill's project, Chico
10 Unified, they're also getting ready to apply for the Prop
11 39, so with 40 schools that they have.

12 COMMISSIONER MCALLISTER: Great. All right,
13 thanks. I don't have any more questions.

14 All right. I will move Item 12.

15 COMMISSIONER SCOTT: Second.

16 CHAIRMAN WEISENMILLER: Those in favor?

17 (Ayes)

18 CHAIRMAN WEISENMILLER: Item 12 passes five to
19 zero.

20 MS. ANTONIO: Thank you.

21 CHAIRMAN WEISENMILLER: Okay. So we did 13
22 before lunch so let's go to 14.

23 MS. MAGANA: Good afternoon, Commissioners. I'm
24 Pilar Magana with the Research and Development Division.
25 I'm here to present, for your consideration, a project with

1 Gas Technology Institute.

2 This project was selected under a competitive
3 solicitation for natural gas vehicle infrastructure
4 improvement. And GTI is partnering with ANGI Energy
5 Systems to improve fuel transfer efficiency and compressed
6 natural gas vehicles. And they are going to develop a more
7 efficient and advanced method for improving the fueling
8 method in vehicles.

9 Currently, it's estimated that vehicles are
10 underfilled by approximately about 20 percent. And this is
11 because of an inability to achieve a full field because of
12 the current methods used. So this technology will seek to
13 design and demonstrate a pre-commercial dispensing system
14 that is cost-effective and will improve vehicle fills. And
15 the ability to achieve a more efficient fill will increase
16 vehicle range and reduce the number or size of storage
17 vessels on the vehicle. And they will be providing
18 \$300,000 in match funding.

19 And I'd be happy to answer any questions.

20 CHAIRMAN WEISENMILLER: Great, thank you.

21 Commissioners, we've segued over to the R&D side
22 of the agenda. I've gone through these, they're all good
23 projects, certainly a competitive process. So any
24 questions or comments on this one?

25 COMMISSIONER DOUGLAS: No, move approval of this

1 one.

2 COMMISSIONER MCALLISTER: Second.

3 CHAIRMAN WEISENMILLER: All those in favor?

4 (Ayes)

5 This passes five to zero. Thank you.

6 MS. MAGANA: Thank you.

7 CHAIRMAN WEISENMILLER: Let's go on to Item 15,
8 University of California Berkeley. And this is another
9 PEIR natural gas funding. Guido, hi.

10 MR. FRANCO: Good afternoon, Commissioners.

11 Susan Wilhelm was not able to attend but I'm here
12 representing her.

13 Today, I'm requesting approval for funding for
14 (indiscernible) with UC Berkeley for the amount of
15 \$300,000. This project would be funded using PIER natural
16 gas funds.

17 The proposal of this project is to enhance the
18 Cal-Adapt website that you know to display new datasets and
19 also to visualize the risks posed by climate change to the
20 natural gas system. So UC Berkeley will use the resource
21 of ongoing projects.

22 For example, there's an ongoing project looking
23 at the risks of the natural gas system in the Delta. And
24 as part of the California's fourth climate change
25 assessment, there will be new research projects. And this

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1 project will help with the display of that information in
2 a way that is accessible to not only natural gas utilities,
3 but also to rate payers.

4 So with that, I would be glad to answer any
5 questions that you may have.

6 CHAIRMAN WEISENMILLER: Thank you.

7 Yeah, this is a program that tries to help
8 planners and others visualize the impacts of climate change
9 over time in specific locations, so it's quite useful.
10 This is an extension more to the gas side but also
11 including the visualization part. So yeah, any questions?

12 COMMISSIONER MCALLISTER: Good. Yeah, I'll move
13 Item 15.

14 COMMISSIONER DOUGLAS: Second.

15 CHAIRMAN WEISENMILLER: All those in favor?

16 (Ayes)

17 CHAIRMAN WEISENMILLER: Item 15 passes five to
18 zero. Thanks.

19 Let's go on to Item number 16, which is the
20 electric program investment charge annual report. Mr.
21 Stokes, please.

22 MR. STOKES: Good afternoon, Commissioners. My
23 name is Erik Stokes with the Energy Research and
24 Development Division.

25 Staff is seeking Commission approval today for

1 the 2014 EPIC Annual Report. The report complies with all
2 applicable CPU EPIC decisions including Decision 1205037
3 and Decision 1311025 as well as Senate Bill 96, which was
4 signed into law in September of 2013. In particular SB96
5 added Section 25711.5 to the Public Resources Code, which
6 requires the Energy Commission to prepare and submit to the
7 legislature no later than April 30 of each year, an annual
8 report that includes a brief description of each project
9 awarded or completed in the previous calendar year as well
10 as an update for each project under way.

11 This report also provides an overview of the
12 Energy Commission's administration of the EPIC Program in
13 2014. And I'll take the next couple minutes to highlight
14 some of these efforts and activities.

15 In 2014, the Energy Commission released the first
16 EPIC solicitations totaling \$192.8 million in EPIC funding.
17 Eight of these solicitations totaling \$151.7 million closed
18 in 2014. For these eight solicitations, the Energy
19 Commission received over 320 proposals requesting over \$690
20 million.

21 Also in 2014, the Energy Commission ramped up its
22 efforts in support of diversity and outreach objectives
23 outlined in Chair Weisenmiller's letter to the CPUC.
24 Highlights of some of these efforts include the following:
25 Staff conducted four public workshops in Sacramento,

1 Fresno, San Jose and Gardenia to explain the EPIC
2 application process and highlight the Commission's
3 commitment to diversity in the EPIC program.

4 The Energy Commission's Research homepage was
5 updated to include a statement about the Commission's
6 commitment to diversity and its research funding programs.

7 Staff reached out to a number of groups
8 representing women, minority, and disabled-owned businesses
9 to share information about the EPIC programs and the
10 funding opportunities it provides. These groups included
11 the African-American, Hispanic, and Asian Chambers of
12 Commerce in California; the Association of Women and Water
13 Energy Environment; and the National Society of Black
14 Engineers.

15 Also two solicitations: one that was released in
16 2014 and another that was released in early 2015. Both
17 allocate EPIC funding to disadvantaged communities as
18 defined by CalEnviroScreen 2.0.

19 And as Laurie mentioned earlier this morning,
20 we've also developed a voluntary survey to send out to EPIC
21 recipients to identify awardees that are small businesses;
22 women, minority, or disabled veteran-owned businesses to
23 better track our progress going forward.

24 For the first seven EPIC awards, three included
25 these groups as either the prime recipient or the

1 subcontractor on the project.

2 In 2014, the Energy Commission continued its
3 efforts to coordinate with federal and state agencies and
4 solicit input from outside stakeholders and public forums
5 to ensure EPIC investments leveraged current R&D projects,
6 fill critical funding gaps, and needs and address barriers
7 to high-priority energy issues facing Californians i.e.,
8 electrical rate payers.

9 A few highlights of these efforts include in
10 October Energy Commission staff participated with the
11 Department of Energy Staff in the ARPA-E annual meeting to
12 discuss related research programs and smart grid
13 technologies, renewal integration and storage, as well as
14 opportunities to collaborate and leverage research funds.

15 In June, staff held a public workshop with
16 representatives from the automobile industry, CPUC,
17 utilities, and other stakeholders to discuss research needs
18 for managed charging and vehicle integration of plug-in
19 electric vehicles for an EPIC solicitation. We also issued
20 two requests for comments to solicit additional stakeholder
21 input on a future solicitation for workforce training and
22 development needs related to advanced building energy
23 efficiency technologies and measures.

24 In November, the Commission also released a
25 federal cost share solicitation to bring more federal funds

1 to California by helping applicants meet a portion of
2 their federal funding cost share requirements using EPIC
3 funds.

4 In April, the Energy Commission adopted the 2015-
5 '17 EPIC Trineal Investment Plan, which presents the
6 Commission's strategy for administering \$388.8 million in
7 funding. In developing the investment plan, staff held
8 three public workshops to solicit input on the plan. In
9 addition to the oral comments received at these workshops,
10 we received over 150 written comments. The plan is
11 expected to be approved by the CPUC in the near future.

12 Finally, in December the Energy Commission
13 approved the first seven EPIC awards totaling \$9.95
14 million. These projects will advance new technologies and
15 tools to further enable California's electricity grid to
16 reliably integrate and increase the amounts of intermittent
17 renewable in a clean, safe, and cost-effective manner.

18 Two of these projects will further advance low-
19 cost thermal energy storage technologies previously funded
20 by ARPA-E. Four projects will develop more accurate and
21 advanced tools and methods to better forecast and respond
22 to solar and wind intermittency. One project will
23 investigate how the operation of the geyser's geo-thermal
24 facilities can be modified to provide flexible generation.

25 Combined these projects are also providing over

1 \$5 million in cost share. Thank you for your
2 consideration. I'll be happy to answer any questions.

3 CHAIRMAN WEISENMILLER: Thank you.

4 Commissioners, any questions or comments? Okay, go ahead.

5 COMMISSIONER DOUGLAS: No, I move approval.

6 COMMISSIONER SCOTT: Second.

7 CHAIRMAN WEISENMILLER: All those in favor?

8 (Ayes)

9 This passes five to zero. Thank you.

10 Let's go on to 17, developing a portfolio
11 advanced deficiency solutions technology and approaches for
12 more affordable and comfortable building grants. Speak,
13 Jackson, thanks.

14 MR. THACH: Good afternoon, Commissioners. I am
15 Jackson Thach with the Energy Research and Development
16 Division.

17 Today, staff is recommending approval for a
18 project that is under solicitation upon 13301, which was
19 titled, "Developing a Portfolio of Advanced Efficiency
20 Solutions: Technologies and Approaches for More Affordable
21 and Comfortable Buildings".

22 I am seeking approval for the advanced efficiency
23 project titled, "Development and Testing of the Next
24 Generation Residential Space Conditioning System for
25 California." The recipient, Electric Power Research

1 Institute, will develop and test the Next Generation
2 Residential Space Conditioning System by combining and
3 integrating several advanced technologies available around
4 the world into a single-spaced conditioning system that
5 cost-effectively fits California's climatic conditions for
6 residential building applications.

7 Combining technologies such as variable capacity
8 heat pumps, alternative refrigerants, and advanced fault
9 detection and diagnostics into a single system will help
10 California to accomplish its statutory energy goals.

11 There is \$322,281 in matched funds being
12 provided. Project partners include the Western Cooling
13 Efficiency Center at the University of California Davis,
14 Pacific Gas & Electric's Applied Technology Services
15 Department, Link Housing (phonetic), and Ike and Goodman
16 (phonetic).

17 I believe that the recipient, Austin DeRose, is
18 available via WebEx to respond to questions if necessary.
19 Staff recommends approval of this project and I am
20 available to answer any questions you may have. Thank you
21 for your consideration.

22 CHAIRMAN WEISENMILLER: Thank you. The
23 gentleman is on the line now. Okay.

24 Commissioners, any questions or comments?

25 COMMISSIONER MCALLISTER: This obviously fits my

1 area as well as being part of the EPIC process. So I want
2 to just highlight, you know, we do a lot of things in the
3 research and development that's relevant for all the whole
4 Energy Commission's portfolio. And developing new
5 technologies that better respond to our climate and our
6 building conditions and our localities is really key.

7 You know, this is interesting for a number of
8 different metrics but also to focus on, you know, low-
9 income involving them and I think there's a lot to like
10 about this work. You know, EPIC obviously has a lot of
11 moxie and skill in this area, so it's good, because it
12 looks like a great team. So I'm very supportive of this
13 project.

14 So if there are no further comments, I'll move
15 Item 17.

16 COMMISSIONER DOUGLAS: Second.

17 CHAIRMAN WEISENMILLER: All those in favor?

18 (Ayes)

19 Item 17 passes five to zero. Thank you.

20 Let's go on to 18. Developing advanced energy
21 storage technology solutions to lower costs and achieve
22 policy goals. Alan?

23 MR. SOLOMON: Thank you. Good afternoon,
24 Commissioners. My name is Alan Solomon and I am a
25 solicitation manager for PON-13-302. This solicitation was

1 tasked with developing advanced energy storage technology,
2 solutions to lower costs and achieve policy goals.

3 Broadly speaking, some of the goals of the
4 solicitation were to reduce the costs of energy storage,
5 improve the performance of energy storage systems, and
6 demonstrate cost-effective in sustainable business cases.

7 The solicitation had two components. The first
8 concerned the modeling initiative, the second concerned a
9 technical initiative. In total I received 37 proposals.
10 Nine were for the modeling portion, 28 were for the
11 technology portion. The scoring teams met and on December
12 10th, the NOPA was issued. It is being recommended that
13 four agreements be awarded from the solicitation.

14 The first agreement was approved at the March
15 business meeting. Today, I'm here to present the other
16 three agreements.

17 The first agreement is with Cogenra Solar
18 Incorporated. The purpose of this agreement is to develop
19 a thermal energy storage system that is integrated to PV
20 thermal generation. The goal of this proposal is to
21 develop generation that is reliable, provides fast
22 discharge, and permits load shifting. This system would
23 use both photovoltaic in an organic compound-based material
24 that would capture the heat not used by the photovoltaic
25 cells.

1 This will help bring the costs of thermal energy
2 down to under \$20 per kilowatt hour. The Cogenra site will
3 be at NASA's Jet Propulsion Laboratory in Pasadena.

4 The next agreement is with UCLA. The proposed
5 project is to build a fully functional low-cost high-
6 temperature hybrid compressed air energy storage system
7 that can efficiently store grid-level energy and later
8 release that energy for ancillary services and load
9 following. This system combines a state-of-the-art
10 high-temperature energy storage unit with traditional
11 compressed air energy storage. The installation site for
12 this project would be at the campus of Cal Poly in Pomona.

13 And the last agreement is with Eos Energy
14 Storage. Eos Energy Storage will pilot-test a 50 kilowatt,
15 150 kilowatt hour integrated system that incorporates
16 approximately 140 rechargeable zinc hybrid cathode battery
17 modules for multiple application testing by PG&E.

18 The project will integrate multi-phased battery
19 testing with grid-modeling. This will help determine how
20 effective the batteries operate in real world conditions
21 and will also provide cost benefit information.

22 Some examples of the use-case studies that will
23 be used include peak shaving, load following, frequency
24 regulation and intermittent renewable integration. The
25 installation site for this project will be at PG&E's

1 Technology Center in San Ramon.

2 Today, I am here to ask for your approval on
3 these three items and to answer any questions that you may
4 have.

5 CHAIRMAN WEISENMILLER: Great, thank you.

6 Commissioners, any questions or comments?

7 COMMISSIONER MCALLISTER: I'll move this item.

8 COMMISSIONER DOUGLAS: Second.

9 CHAIRMAN WEISENMILLER: All those in favor?

10 (Ayes)

11 CHAIRMAN WEISENMILLER: This passes five to
12 zero. Thanks so much.

13 MR. SOLOMON: Thank you.

14 CHAIRMAN WEISENMILLER: Let's go on to 19,
15 demonstrating secure, reliable microgrids and grid-linked
16 electric vehicles to build resilient low-carbon facilities,
17 and communities. This is Jamie Patterson?

18 MR. PATTERSON: Good afternoon, Commissioners. I
19 am Jamie Patterson and I was the solicitation manager for
20 PON-14-301. As the title states this solicitation went to
21 demonstrate secure, reliable microgrids and grid-linked
22 electric vehicles to build resilient low-carbon facilities
23 and communities.

24 This solicitation had three project groups.

25 Group one, the first group, was the demonstration

1 of low-carbon based microgrids for critical facilities.

2 Group two was the demonstration of high-
3 penetration renewable-based microgrids. And what we mean
4 by renewable-based is that the onsite renewable generating
5 component had to be at least 51 percent on an annual basis.

6 Group three was the demonstration of advanced
7 smart and by directional vehicle charging.

8 Microgrids are a tool to achieving the state's
9 energy goals. California's electric grid must become more
10 resilient and adaptable to climate change impact such as
11 increased fires, severe storms, and heat waves. Microgrids
12 advance these goals, because they are able to disconnect
13 from the grid and provide islands of stable independent
14 power.

15 This solicitation supported the demonstration and
16 development of microgrids that incorporated clean, low-
17 carbon energy resources with energy storage and onsite
18 energy management systems. These microgrids will help the
19 State of California achieve its carbon reduction goals and
20 serve as replicable case study models for others on
21 integrating a range of technologies including electric
22 vehicles.

23 Today, we are asking for approval of seven
24 agreements from this solicitation.

25 The first agreement is with Gridscape Solutions

1 for approximately \$1.8 million. These microgrids under
2 Gridscape Solutions are for three fire stations that will
3 demonstrate how a critical facility can be served reliably
4 while increasing renewable penetration where the electrical
5 substations are reaching their maximum low capacity. This
6 project also supports the City of Fremont's goal to achieve
7 zero net energy for fire stations, community colleges, and
8 other city government facilities.

9 The next project is from Trane, Incorporated.
10 This critical facility microgrid project will upgrade an
11 existing wastewater treatment plant in Santa Rosa to act as
12 an advanced microgrid with the ability to provide ancillary
13 services to the grid.

14 The project team will monitor the plant as it
15 operates gathering data from both standard and advanced
16 microgrid operational capabilities. The goals of the
17 project are to demonstrate that a microgrid at a wastewater
18 treatment plant can operate without compromising water
19 quality guidelines and deliver reliable ancillary services
20 to the grid.

21 The next project for Robert Bosch is a Group 2
22 project on a high-penetration renewable microgrid. This
23 demonstration is of a microgrid for a commercial industrial
24 facility. It's unique in that it's a direct current
25 microgrid, a DC microgrid, that will provide improved

1 energy efficiency when compared to the more conventional
2 AC or alternating current microgrid. It will attempt to
3 achieve the savings by eliminating the inverse switching
4 losses that are inherent with AC microgrids.

5 The next project is Chabot-Las Positas Community
6 College District. Las Positas will produce a high-
7 penetration renewable-based microgrid blueprint that can be
8 used by educational institutions statewide to evaluate and
9 plan and install a microgrid that can help manage and
10 coordinate the output of existing renewable energy assets
11 using energy storage systems with the ability to provide
12 benefit to the grid through automated demand response and
13 other energy services.

14 The next project is with San Diego Gas & Electric
15 Company. This is a demonstration of a utility-owned high-
16 penetration renewable-based microgrid that covers an entire
17 community in Southern California namely Borrego Springs.
18 This demonstration will provide a business case for how a
19 utility can modify their current practices and develop a
20 distribution system based on a series of interconnected
21 renewable-based microgrids for their communities that they
22 serve.

23 The next project is with Lawrence Berkeley
24 National Labs. This project will develop and deploy a
25 system for aggregating plug-in electric vehicle loads and

1 applying smart charging to vehicles to respond to demand
2 response signals, mitigate demand charges, leveraging time of
3 use rights and offer wholesale market services.

4 Forty-eight vehicles owned by Alameda County will
5 participate in this PG&E automated demand response programs
6 and the California independent system operate a wholesale
7 market for demand response and ancillary services under
8 this contract.

9 The last agreement is with the University of
10 California, Los Angeles. This project will apply
11 directional power flow equipment deployed at four sites
12 within the Southern California Edison territory to measure
13 range of variables including the behaviors of plug-in
14 electric vehicle users captured via smart phone
15 applications, system integration with smart grid using a
16 test bed of open automated demand response signals. And
17 will measure power levels and power quality grid impacts of
18 electric vehicles.

19 These are the projects that we're looking for
20 approval today. And I can answer any questions that you
21 may have.

22 CHAIRMAN WEISENMILLER: Thank you.
23 Commissioners, any questions or comments?

24 COMMISSIONER SCOTT: I would just note this is a
25 really exciting set of projects. I'm really looking

1 forward to getting the results back and seeing how they
2 turned out. All of them are really intriguing. The
3 connecting microgrids in Borrego Springs that you
4 mentioned, just really neat.

5 And I think, you know, from the transportation
6 side, I'm always thinking about on the electric vehicles.
7 Right now, we've got 120,000 of them on the road which is
8 awesome. It's a great number, but it's not enough to --
9 you need lots -- hundreds of thousands of them to be able
10 to sort of really integrate them and start getting these
11 grid services. But I think it's great to look and see what
12 types of technologies we need to test, you know, the
13 systems that go along with the vehicles talking of the
14 buildings. And so, I'm just excited to see the results of
15 these projects.

16 COMMISSIONER MCALLISTER: Yeah. I would echo
17 many of those comments. And in particular, I'm going to be
18 really interested in, you know, maintaining a high level of
19 rigor whether these are more research needed or whether
20 they're applied in the real world conditions, you know.
21 And I'm pretty familiar with the SDG&E project in Borrego
22 Springs.

23 But the metrics for reliability power quality,
24 all the ancillary services that have to be, you know, those
25 boxes have got to be checked in terms of maintaining

1 reliability and making sure that our microgrids are
2 operating at the level of service quality that we expect
3 and that really we have to meet.

4 So you know, I'll be interested to get periodic
5 updates on sort of what issues are being encountered and
6 how these projects have confronted those issues. And even,
7 you know, additional detail about sort of what it is
8 they're actually paying attention to, to get those metrics,
9 because I think all of those details are really going to
10 matter. We've done it at a large scale for, you know,
11 since electric systems were there or with us. But, you
12 know, as we move more localized really we have to pay
13 attention to those details.

14 I know the Chair does and he knows that but I
15 would want to keep tabs on that as well.

16 CHAIRMAN WEISENMILLER: Yeah, I was going to
17 flag -- I mean, one of the things I've been trying to
18 figure -- you know, the Navy Marines are interested in
19 microgrids. And at the same time I think when we talk to
20 them the theory is if you've got ten experts knowing
21 microgrids, you'd probably get at least 15 definitions on
22 what a microgrid is. And so, as we're trying to
23 standardize things, this is the research that is important.

24 One thing is that Mike had was a workshop earlier
25 this spring on sort of the microgrid projects. Because

1 eventually I'd like to see us move into coming up with a
2 microgrid roadmap with the ISO and the PUC. And the
3 consensus now from our experts in all three agencies is
4 premature. You know, it may be something that we get to
5 next year. And I guess, Frank, at issue is we have on our
6 plate between the storage and DR roadmaps to really do and
7 the vehicle to grid. So we have three very successful
8 roadmaps across the agencies that we're trying to really
9 push.

10 This is probably teed up as the next one, but
11 like I said, we have to get a little bit more, you know,
12 research under our belts, get a little bit more
13 standardization. But certainly if we can get the military
14 -- again, I think the theory is with microgrids, is to try
15 to get to the standardization and then just sort of drive
16 the cost down. And it's probably true that the type of
17 microgrid you might do, you know, in a military base is
18 different than what you're going to do in a wastewater
19 treatment plant or various features.

20 I guess some folks are even now talking about solar
21 systems is what controls their beam microgrids. And again,
22 it's sort of different levels of complexity for different
23 uses, but the scenario which I think has a lot of potential
24 -- but we really (indiscernible) on the part of the
25 research laying some foundations for future stuff.

1 There's a really good report out from SDG&E on
2 the earlier Borrego Springs activity and how that's really
3 paid off in reliability for a relatively remote location.

4 So anyway this is certainly one of the things we
5 have or are putting a lot of emphasis on, and I'm sure are
6 going to continue over time to really make progress here.

7 COMMISSIONER SCOTT: I'm move approval of --

8 COMMISSIONER HOCHSCHILD: Something that
9 Commissioner McAllister and I had, was it yesterday or two
10 days ago, the demand response? Yesterday, day before
11 yesterday, from LBNL presented on demand response and she
12 highlighted these four leading electric loads in the
13 commercial industrial sector in California, which are
14 refrigerated warehouses, agricultural pumping, wastewater
15 treatment and the Google data centers. And just how
16 significant those four loads are.

17 It would be interesting to see kind of where
18 microgrids can come into play with those loads in
19 particular, because of just how significant they are. I'd
20 like to hear comments on that.

21 MR. PATTERSON: Well, we have an excellent -- as
22 I pointed out the Trane wastewater treatment plant. One of
23 the goals there is to show the financial benefits of
24 playing in the ancillary markets.

25 And those ancillary markets are basically, you

1 know, the demand response, etcetera. And we're going to
2 be monitoring those very carefully. All these projects
3 have very strict metrics for success. And actually our
4 entire EPIC Program is focused on monitoring the benefits
5 of the research and the effects that we can achieve.

6 COMMISSIONER HOCHSCHILD: Yeah, great. Thanks
7 again to the Chair for pushing things in this direction.
8 To me, this represents the sort of second phase of
9 research. We've gotten the price of renewables down and I
10 would argue renewables are sort of in the, you know, senior
11 year of high school of fast growing but we're not quite at
12 adulthood yet. And this is what we really need to get
13 really integrated in the grid in the most intelligent way
14 and stable.

15 So thanks for your work to help make that happen.

16 COMMISSIONER SCOTT: I'll move approval of Item
17 19.

18 COMMISSIONER DOUGLAS: Second.

19 CHAIRMAN WEISENMILLER: All right, all those in
20 favor?

21 (Ayes)

22 Item 19 passes five to zero. Thanks, Jamie.

23 So we've already dealt with 20 and 21. So now
24 we're up to 22, which is analysis of social, cultural, and
25 behavioral aspects of achieving energy efficiency potential

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1 (phase 1: residential sector).

2 MS. VACCARO: Chair Weisenmiller, before you move
3 forward with this, this was another area where Commissioner
4 McAllister needs to disclose and recuse specifically with
5 respect to 22(c).

6 CHAIRMAN WEISENMILLER: Okay.

7 UNIDENTIFIED: So you might treat this the same
8 way you did Item 9.

9 CHAIRMAN WEISENMILLER: Okay. So what we're
10 going to do, again, is discuss everything but C. We'll
11 vote on everything but C and then we'll go to C after
12 Commissioner McAllister steps out. Okay?

13 COMMISSIONER MCALLISTER: All right.

14 MR. HUNGERFORD: Good afternoon, Commissioners.
15 I'm David Hungerford of the Energy Efficiency Research
16 Office in the Energy Research and Development Division.

17 I'm here today to request approval of five
18 projects selected from 12 submitted under EPIC Program
19 Opportunity Notice 14-306 analysis of social, cultural, and
20 behavioral aspects of achieving energy efficiency
21 potential.

22 The purpose of this solicitation was to provide
23 an empirical basis for forecasting energy consumption and
24 program participation. Each of these projects will examine
25 a different aspect of energy use behavior and efficiency

1 measure adoption in the residential sector.

2 The first project is with the University of
3 California Berkeley to conduct a quasi-experimental,
4 econometric study of energy efficiency measured option and
5 energy savings using a large dataset of detailed meter data
6 for participants in a large investor owned utility heating
7 ventilation and air conditioning quality installation
8 program. The goal is to gain a more detailed understanding
9 of consumption patterns by different cultural and
10 socioeconomic subpopulations.

11 The second project is with the Inova Energy Group
12 for a focused demographics study of Hispanic utility
13 customers to better understand the social, cultural, and
14 behavioral influences on their energy consumption patterns
15 and appliance purchase decision-making.

16 The fourth project, Project D, is with Indicia
17 Consulting for a study to analyze and document the role of
18 emerging attitudes and practices around technology adoption
19 and use and how those attitudes and practices affect
20 program participation and potential savings from efficient
21 energy consuming devices, particularly electronics.

22 The final project is with TRC Engineers to study
23 cultural and demographic factors of multifamily electric
24 energy use patterns. This study will document energy use
25 patterns before and after energy efficiency upgrades to

1 multi-family buildings and analyze the influences of
2 social, cultural, and use behavior on the effectiveness of
3 the efficiency upgrades.

4 These projects will help us better understand how
5 California's energy efficiency policies can be optimized to
6 maximize energy savings, decrease energy costs for
7 California investor owned utility electric rate payers and
8 reduced carbon emissions. They all take innovative
9 approaches to examining the heterogeneity of program
10 participation and savings across social, cultural and
11 socioeconomic subpopulations.

12 Staff recommends approval of all five projects or
13 all four projects in this particular case. I'll be happy
14 to answer any questions.

15 CHAIRMAN WEISENMILLER: First, are there
16 questions on anything but C or comments?

17 Do you have a question?

18 COMMISSIONER MCALLISTER: Can I make a general
19 comment about this PON, I guess I'm not sure.

20 CHAIRMAN WEISENMILLER: No.

21 COMMISSIONER MCALLISTER: Probably not, I guess.
22 But just about behavior issues in general?

23 MS. VACCARO: I think just a general comment. I
24 mean right now what you have before you is everything
25 except for Item C. I think it's fine for you to make a

1 comment about what was presented to you at this moment.

2 COMMISSIONER MCALLISTER: Okay, great. So this
3 is a longstanding interest of mine. I know that David,
4 you're definitely the right guy for the job here to be
5 presenting this and working on this in EPIC.

6 I think there are many of us who have wanting to
7 get to the behavior issues for a long time and really
8 figure out ways to make them real in terms of the ability
9 of us to count on them and utilize them and leverage them
10 as a resource that helps grid reliability. And that
11 applies efficiency and gets the impacts that we're wanting
12 to get in terms of demands of management at lowest costs
13 and highest reliability.

14 And it's a fairly -- I don't want to say it's a
15 brand new area, because it's not. There have been people
16 studying this including David and myself to some extent.
17 But I really think this human element of how energy is
18 consumed is something that we very much need to understand
19 better. And it is the subject of rigorous research. It
20 can be even more so, and I think we're going to benefit
21 tremendously from this line of inquiry.

22 There's an increasing body of researchers and
23 just sort of intelligence about this and it overlaps a lot
24 with things that are outside of this building in terms of
25 just consumer behavior generally, which obviously in our

1 society today, that's very sort of consumer oriented.
2 There is a vast amount of expertise about how to sell stuff
3 and about how to move behavior in various ways. So it's
4 kind of overdue that we apply this to the energy sector in
5 a more rigorous broad way. And I'm very supportive of
6 these four projects.

7 So I will move 22a, b, d, and e.

8 COMMISSIONER SCOTT: Second.

9 CHAIRMAN WEISENMILLER: Okay, so all those in
10 favor?

11 (Ayes)

12 So 22a, b, d, e passed five to zero.

13 Hold off a second before we go into C.

14 (Commissioner McAllister recused himself.)

15 Okay. Please.

16 MR. HUNGERFORD: All right. This third project,
17 project C, is with the Center with Sustainable Energy for a
18 study of participant data from a large residential energy
19 retrofit program available in multiple counties across the
20 state to advance and understanding of society, cultural,
21 and behavior in both program participation and resulting
22 savings.

23 CHAIRMAN WEISENMILLER: Okay. Yeah, I going to
24 say I'm not necessarily a fan of Bay Area program, but
25 still did anyone else have any questions or comments?

1 COMMISSIONER DOUGLAS: No, I've got no
2 questions. I'll move approval of this item.

3 COMMISSIONER HOCHSCHILD: Second.

4 CHAIRMAN WEISENMILLER: All those in favor?

5 (Ayes)

6 CHAIRMAN WEISENMILLER: This one passes four to
7 zero with one recusal. Thank you.

8 So let's go on to minutes.

9 COMMISSIONER DOUGLAS: So I was not here for the
10 last business meeting, so I'll recuse from the minutes.

11 CHAIRMAN WEISENMILLER: Okay.

12 COMMISSIONER SCOTT: I move approval of the
13 minutes.

14 COMMISSIONER HOCHSCHILD: Second.

15 CHAIRMAN WEISENMILLER: Okay. All those in
16 favor?

17 (Ayes)

18 CHAIRMAN WEISENMILLER: So it is four to zero,
19 one recusal.

20 COMMISSIONER DOUGLAS: One abstention.

21 CHAIRMAN WEISENMILLER: One abstention, okay.

22 You're right.

23 So let's go on to Lead Commissioner or Presiding
24 Member Reports. Commissioner Scott?

25 COMMISSIONER SCOTT: Great. So I had a couple of

1 things that I wanted to highlight for you all from since
2 the last time that we met.

3 Earlier this week I was down in -- actually
4 yesterday as well -- in San Diego for a meeting of the
5 Western Interconnection Regional Advisory Body. But before
6 that meeting I had a chance to some tours of electric
7 charging infrastructure with SDG&E. SDG&E has a main
8 campus that has six different buildings that they have gone
9 back and put in charging infrastructure for the parking at
10 each one of those buildings.

11 They have an additional program where they're
12 adding \$2,500 to employees who would like to purchase an
13 electric vehicle. And they've got kind of a test system,
14 so that you can see it's a vehicle grid integration that
15 they have there. And so it's an app that they have and you
16 kind of set your app and tell it when you want your car to
17 charge. And then it kind of can use the grid to balance.
18 And so they're doing some experimentation with their own
19 employees and their own electric vehicles to see how that
20 will work.

21 We went from there over to the parking lot of the
22 San Diego Zoo. And that was just a really interesting
23 example of a project, because the San Diego Zoo has very
24 specific requirements for what a charging infrastructure
25 ought to look like in their parking lot.

1 It also has solar panels that are on top of it.
2 And so instead of making like a long rectangular solar bank
3 over a set of parking spaces, the solar arrays kind of look
4 a little bit like trees, if you will. And the bottom of
5 the base is actually kind of a stucco wood-looking and it's
6 got animal prints and different plants and things that go
7 along with it. And so both the zoo and the visitors and
8 the folks who drive the electric cars are really happy.
9 But it's just a nice example of how we can be innovative in
10 what we put together, so that it fits the space wall.

11 And then we went to visit Car To Go in San Diego.
12 They have 400 all-electric smart cars that they're driving
13 around. And it's just a really neat and interesting
14 service, so that they said a lot of times the students take
15 advantage of the Car To Go. It fills in really nicely with
16 the way that the San Diego Transit is set up, so that you
17 can kind of get from place to place, get that last mile in.

18 And it was really neat to see what they're doing
19 there and then to kind of learn a little bit about the
20 territories that they're wanting to expand into, so that
21 folks from all walks of life have an opportunity to take
22 advantage of electric vehicles.

23 CHAIRMAN WEISENMILLER: Yeah, I think when I was
24 in Stuttgart I met with them. And there they were very
25 focused on having electric vehicles fueled by renewable and

1 really scattered around through Stuttgart, with at least
2 university components, but to really encourage the use
3 there.

4 So yeah, it's a very interesting business model.

5 COMMISSIONER SCOTT: Yeah, absolutely.

6 Let's see, I have done a couple of things on the
7 hydrogen fuel cell electric vehicle space.

8 We did last week -- I went down to San Diego and
9 this is kind of a road show that the Governor's Office of
10 Business and Economic Development is putting on with the
11 Air Resources Board, with the Energy Commission, with some
12 of the fuel providers and with some of the OEMs. To really
13 let people in each of the locations where we're going -- so
14 it's a city planners, county planners, fire marshals, other
15 folks like that just know and understand what's going on
16 across the state in terms of hydrogen fuel cell electric
17 vehicles. Why we have the focus on them that we've got.

18 Tyson Nickerly (phonetic) is the terrific point
19 person if you need help with the permitting. We had a
20 retired fire marshal who came and talked about different
21 parts of the fire code for the fire marshals. And so it
22 was just a nice opportunity to let folks know how important
23 zero emission vehicles are for the state. And that we have
24 resources to help with that.

25 I also got to go and celebrate the opening of the

1 11th hydrogen fueling station at the South Coast Air
2 Quality Management District, so that was a lot of fun.
3 They are, as you know, terrific partners. It was great to
4 work with them on that project. The hydrogen station is
5 open for business. It was pretty fun. Linda Rapattoni
6 from our press team did a great job. I got an interview
7 with some different media including some Chinese media that
8 was there.

9 And it was just great. We're right at the very
10 beginning. We're just right at the very beginning, you
11 know? We're looking for an initial network of about 100
12 across the state, this is number 11. We hope to have about
13 46 open by the end of the year, so we're just getting
14 going. But it's great to see those, have the cars there,
15 they had them arrive there for the test drive, they had the
16 Hyundai Tucson there for the test drive. The Honda Clarity
17 and the Mercedes Epsom, so that people also had an
18 opportunity to drive the cars and they were letting people
19 practice filling up the cars, so just that was a fun event.

20 I have done two legislative hearings. So I went
21 over to -- so it was Senate Trans and Senate EQ. And they
22 had a hearing, more like an informational hearing on
23 transportation. So it was a great opportunity to go and
24 highlight what the Energy Commission was doing on
25 transportation, highlight a little bit about the IEPR from

1 last year, talk about the Investment Plan, talk about some
2 of the projects that we were able to fund.

3 And actually we've done a really good job kind of
4 spreading the funding out pretty well across the state, and
5 so it was just a nice opportunity to highlight what the
6 Energy Commission is doing on transportation.

7 Then I had before Senate Utilities and Senate
8 Transportation, a hearing on the oil prices. And so they
9 were interested in knowing what's going on after the
10 Torrance Refinery outage. So I gave kind of a high-level
11 overview about again, sort of the reason why it's important
12 to make the transition we're trying to make to near zero
13 and zero emission vehicles, make that transportation
14 transformation.

15 And then Gordon Schremp did a terrific job sort
16 of just providing a lot of really good -- kind of in the
17 weeds, but he's very good at explaining that type of data
18 to the senators. And so I think that both hearings went
19 well and that they were happy to have the Energy Commission
20 participating.

21 And then I got a chance to participate in a
22 California Women in Energy Dialogue that was a couple of
23 weeks ago. And that was just a lot of fun. It was a panel
24 after work. I got to be with folks like Adrienne Alvord
25 from Union of Concerned Scientists, Caroline Choi from

1 Southern California Edison, Gina Grey from WSPA and Karen
2 Edson from the Cal ISO.

3 And we basically just talked about what it's like
4 to be a woman in Energy and also some of the key topics
5 that we're working on these days. And it was also a really
6 nice chance to do some additional outreach to the folks in
7 the audience and just remind them about the great programs
8 that the Energy Commission has and how they can apply. And
9 I hope that they will apply and also let their friends know
10 to apply. So, you know, it's a nice opportunity to get the
11 word out about what we're doing.

12 So those are a few highlights of things that I've
13 been up to.

14 CHAIRMAN WEISENMILLER: Great. So I remind
15 everyone of my friend Paula Rosput Reynolds line, in I
16 think it was probably in the early '90s, when she said
17 there was never a line at the women's restroom in Energy
18 events. You may have been the exception.

19 COMMISSIONER SCOTT: Right.

20 COMMISSIONER MCALLISTER: That may be changing
21 though. You know, I mean we're getting there.

22 So those were just highlights? I thought you
23 were going through your whole schedule there and that was
24 impressive.

25 So let's see, I guess I'm just going to highlight

1 a few things from the IEPR primarily.

2 The forecasting work has kicked off in earnest
3 and has been going for awhile. A team is moving forward,
4 collecting data and all that good stuff. And we've had a
5 couple of workshops about that already. And on the 19th of
6 last month we had a IEPR workshop on transportation demand
7 forecast and all the issues around the transportation
8 system. And that was super interesting and then I was
9 really happy to share the dais with Commissioner Scott.

10 See you didn't mention that, so there's another
11 thing.

12 And so moving forward on the fronts that we've
13 scoped out in the IEPR Scoping Order, in particular I want
14 to highlight the AB 758, Assembly Bill 758, work that is
15 now moving forward after really a bit of a long gestation
16 period. But staff is really hitting its stride and I'm
17 really proud of the work we've done on the Action Plan.
18 It's been out for a few weeks now.

19 We had a workshop yesterday about AB 758 and just
20 to remind everybody it's the Nancy Skinner bill of a few
21 years ago that asks us to create a plan for how to improve
22 the energy performance of our existing building stock. So
23 it's a nut that a lot of people have sort of tried to crack
24 and we are I think going to make a lot of progress,
25 hopefully unprecedented progress, on that front.

1 You know, the existing buildings are much of the
2 energy savings opportunities that are out there, but
3 they're varied, they're incredibly diverse. Our
4 geographies, our cultures, our demographics, the ages of
5 the buildings, all their characteristics, lots of
6 diversity. And we need the marketplace to do this work.
7 It's not going to come directly from government. So our
8 overarching principle with AB 758 is in order to create the
9 opportunity for businesses to form and grow, to provide
10 efficiency services to existing buildings, we want to do
11 everything we can to create the conditions for that to
12 happen and not get in the way. So sort of do all the good
13 stuff and try to limit the friction in the assistance we
14 provide to the marketplace or the rules we set for the
15 marketplace.

16 And that is a set of activities. I encourage
17 everybody to look at the Action Plan if you haven't,
18 Chapter 3 at least, which is kind of the meat of it. And
19 the implementation is going to happen under the guidance of
20 a joint entity or a joint group that is staffed by staff
21 from the Energy Commission and the CPUC. So we're really
22 going to have to work together on the various issues. And
23 so there are many agencies that we're going to be working
24 with and much of that, at least a high level is spelled out
25 in the Action Plan.

1 The workshop yesterday was incredibly encourage.
2 I really thank Commissioner Douglas and Chair Weisenmiller
3 for being at parts of it. But there's a lot of good will
4 out there to talk through some of these tough issues about
5 how to potentially reform different programs, what needs to
6 happen with code, what some of the issues are to really
7 help the existing buildings scope and do projects cost
8 effectively that improve their energy performance.

9 So I'm very encouraged by the great
10 participation, both remotely and in the room yesterday.
11 And I think there's just a lot of good will and people with
12 their thinking caps on, which is really what we need on
13 that front. So I'm very encouraged by that. It's great to
14 have it moving forward.

15 You know we talked quite a bit about the drought
16 today, but I think the two out of the four initiatives that
17 are in the Governor's Executive Order have to do with the
18 Efficiency Division. And so that's -- looking forward to
19 working with the Executive Office and staff on getting all
20 of that stuff done. Well, we did one of them today, we got
21 one of them going today, so we're efficient here.

22 The Appliance Rebate Program has a short fuse and
23 we need to really start designing that and figure out what
24 it's going to look like. I'm very much looking forward to
25 building bridges over to the Water Board on that program

1 and working with them to sort of come up with a common-
2 sense way to push the marketplace and get those rebates out
3 as quickly and effectively as possible.

4 COMMISSIONER MCALLISTER: Let's see, I wanted to
5 just also mention part of the long-term discussions I think
6 we need to have we do Energy Code. You know, we do the
7 energy efficiency portion of the code, but on the water
8 front we're not the lead agency. But we do, as we worked
9 on this morning, we have a Title 20 authority on the end
10 use devices. And there's an energy component to water
11 obviously.

12 So I think looking at ways to improve the ground-
13 up design of plumbing systems is kind of the next step.
14 And at some point, we'll need to get to that. At some
15 point here pretty soon, so that our new buildings are being
16 constructed in a way that decreases the amount of resident
17 water in the system for purposes of getting hot water to
18 the end devices, for example.

19 And also designing the waste systems of our homes
20 and, you know our commercial and residential buildings, so
21 that they can operate and they're assured to operate at
22 very low flows. And I think we can still make progress on
23 the low flow systems above and beyond what we might do
24 naturally through Title 20, so looking forward to pushing
25 that discussion forward across the agencies.

1 And finally, I was able to actually take a bit
2 of a vacation since the last business meeting. And my
3 family and I spent a few days just less than a week down in
4 Southern Baja. And they had a hurricane down there in
5 September and it pretty much destroyed their electric
6 system. And it was quite eye-opening. You know, I've
7 lived in a lot of developing countries and seen a lot of
8 different electric systems in various states of repair or
9 disrepair. And worked in places where, you know, the
10 system was just never going to make it to many of these
11 places and they wanted remote power, etcetera.

12 But the CFE is rebuilding the backbone and much
13 of the distribution grid. You know, definitely rebuilding
14 almost all the transmission grid down there and much of the
15 distribution grid and so a big investment going on, a lot
16 of construction in the system.

17 And it just brought home to me that hey, we do --
18 we are California, but we do have weather. And we do need
19 the resilience work that we're doing. And we don't want to
20 get caught with critical power needs. And I think we're
21 not the same structure of our electric system as in Mexico
22 but, they can be vulnerable to big weather events and other
23 natural events. So anyway, was thinking about California
24 as I went through Baja.

25 CHAIRMAN WEISENMILLER: No, actually after that

1 event they told me that the air control tower is just gone
2 down there at that airport.

3 COMMISSIONER M ALLISTER: You see the shards of
4 the previous set of towers and poles, you know, next to
5 where they've erected now bigger cement poles, you know,
6 for the transmission grid. And there's just piece-meal
7 repairs going on, on the distribution grid all over the
8 place.

9 CHAIRMAN WEISENMILLER: I'm going to say they
10 were out for weeks.

11 COMMISSIONER MCALLISTER: Oh yeah.

12 CHAIRMAN WEISENMILLER: That was what I noticing.
13 I still a little surprised, you know, when things like
14 Hurricane Sandy happened. You know, trucks go from
15 California back there to help the utility sector. But
16 there's apparently no mutual aide agreement between CFE and
17 say, San Diego.

18 COMMISSIONER MCALLISTER: Oh, interesting.

19 CHAIRMAN WEISENMILLER: Yeah, surprising.

20 COMMISSIONER MCALLISTER: Yeah.

21 CHAIRMAN WEISENMILLER: Yeah, I was just going to
22 hit a couple of things, so just brief. First of all --
23 well actually three things.

24 So first of all, I don't know if any of you have
25 noticed in the newspaper -- I think it's been in the past

1 week -- that Bill Gates noted that Microsoft is now 40
2 years old and indicated that they're now middle-aged. So
3 anyway, we now know the new era for the Energy Commission,
4 I guess. I hadn't quite realized that they started the
5 same year -- or maybe that question, which year or how
6 exactly one marks those things.

7 But also in terms of just on the drought stuff, I
8 was going to say, first I would not think certainly the
9 staff and Commissioner McAllister, Rob obviously and
10 Kourtney, as that came up from one of those weekend events.
11 And you know we went --

12 COMMISSIONER MCALLISTER: I was actually Skyping
13 from Baja.

14 CHAIRMAN WEISENMILLER: I realize that, yes.
15 But yeah, it was at -- I got a note from someone on
16 Thursday saying, "Gee, I sent you a note on Tuesday why
17 didn't you respond? You must be on vacation right now."
18 And a) I was at the ISO all day for an Energy and Balance
19 Marketing and b) I was working on the Executive Order. So
20 I had no time to deal with whatever.

21 But anyway, it was a very -- so as I said people
22 really jumped on the occasion to deal with that. And
23 that's sort of reflected. I think in terms of what I found
24 interesting -- so I was involved in the rollout, you know,
25 and then the press conference on it; and so we had calls

1 with local governments and water agencies and then the
2 environmentalists and then with agriculture. And it was
3 members of the administration on all those. And certainly
4 it was really -- Felicia just did a phenomenal job as did
5 Mark Cohen, the Head of Department of Water Resources.

6 And then it was the same impression in the press
7 event. We had what I think later, Richard Staple,
8 (phonetic) said was the longest press conference he's ever
9 seen. You know, we collectively went around the table and
10 did -- walked through what was in there and then we started
11 taking questions. And we went, like, an hour and 40
12 minutes. And we started at 2:00. Like at 3:15 we asked
13 how many more reporters were on the line for questions and
14 they said 20. And we just sort of all shuddered, and we
15 eventually at some point just had to cut it off. But
16 bottom line is there was a phenomenal amount of interest.

17 You know, the whole time I said maybe one
18 question. We did not get much attention, I guess is what
19 I'm just trying to say, but certainly in terms of a lot of
20 people were very focused on it -- particularly on the Water
21 Board part and the DWR part. But also in terms in of some
22 of the stuff that came out in terms of impact.

23 So the Office of Emergency Services is actually
24 trucking water into communities in the Valley that have no
25 water. None.

1 And in terms of impact on fish and wildlife one
2 of the issues that is in there is whether or not we
3 basically put some sort of barrier to saltwater intrusion
4 in the Delta. It's sort of one of those things like
5 there's so little water going out that you could -- the
6 Delta, the salinity moves back and forth. And if it gets
7 far enough it could be all over in the water supply. And
8 there were certainly some concerns last year we might lose
9 control of that issue. And there are again concerns this
10 year.

11 And the statistic -- although there's some
12 debating -- the gentleman from Fish & Wildlife said that
13 just in terms of impacts on sort of the species is just
14 huge. I mean, a lot of it was about fisheries, but he was
15 saying that in December they had to move ten barriers out
16 of Bakersfield in terms of foraging. So again it's just in
17 terms of just the impacts on agriculture and natural
18 resources. You know, people in the Central Valley -- it's
19 just sort of horrifying is the bottom line.

20 The other thing I was just going to mention very
21 briefly, and I appreciate again, this was a really great
22 staff effort -- was the Governor went back and forth with
23 Mitch McConnell on the Clean Energy Plan.

24 Mr. McConnell sent a NERA study responding to the
25 Governor on that saying -- one of the things it said was

1 that conservation is not really cost-effective. And so,
2 yes, we need to organize a response on that part. And
3 again, we got a lot of help from the staff. We did a very
4 quick turnaround, very solid report. And so, it was good
5 too.

6 So those are the things I was going to hit. Did
7 you have anything?

8 COMMISSIONER DOUGLAS: So I just have a really
9 quick report on -- let's see, on March 30th I went to Los
10 Angeles County and first attended a small celebration for
11 Paul McCarthy who was a 45-year planner in many different
12 roles in the Los Angeles County Planning Department.

13 He has just had a tremendous influence over these
14 45 years, in so many ways, in the shape of development in
15 Los Angeles County. And it was a really nice event and
16 opportunity. And it was a really nice event and
17 opportunity. And he was a close partner with us in our
18 work on the Desert Renewable Energy Conservation Plan.

19 We also followed that up with a number of
20 conversations with the County and a meeting including the
21 County, Los Angeles Metro, and a number of other
22 representatives from other agencies as well, to talk about
23 future collaborative work with Los Angeles County and in
24 Los Angeles County. So it was a really productive meeting
25 and a really valuable day.

1 I, as Commissioner McAllister noted, had an
2 opportunity to attend at least the early portion of the
3 IEPR workshop on the report on 758. And I was really glad
4 I did. It was a packed room, a lot of content, a lot of
5 comment, so it was a very good day. So that's my only
6 report.

7 COMMISSIONER HOCHSCHILD: Great. Thanks, Karen.

8 One thing I just did. I added up all the money
9 we gave away today, \$82 million. And that's got to be
10 close to a record. I wasn't here during the ARRA days, but
11 this is great news for the state that this money is getting
12 out the door and in the economy.

13 And one thing in particular with the innovation
14 sector is the way in which, even things we don't directly
15 fund, there's the spillover effect. So Commissioner
16 McAllister and I hosted an executive from View, (phonetic)
17 which is a company in Silicon Valley that's making sort of
18 an electrochromic glass that you can tint and you can
19 control it through your iPhone and it saves 20 percent on
20 the energy, because you can make it go from clear to dark.

21 And the executives in that company are coming out
22 of the solar energy and out of the semi-conductor industry.
23 And you see this sort of spillover effect into totally new
24 industries. And by the way, we have actually -- I think,
25 View has benefitted from energy emission support as well on

1 two occasions. It's a great success rate. It raised \$400
2 million now and have grown quickly, but there's the
3 spillover effect from all our work that, I think, we should
4 be mindful of.

5 A few other highlights from maybe some actions --
6 yesterday Rob and I were at UC Merced meeting with their
7 solar center. They're doing actually some very exciting
8 work on solar thermal creating hot air. And even on a
9 freezing, windy, completely overcast day these solar
10 collectors were getting air to 212 degrees and very
11 impressive stuff. So that's an understatement that they've
12 done terrific work.

13 On the way back I stopped at and I visited with
14 actually some almond farmers. And one interesting thing --
15 so California produces over 80 percent of the world's
16 almond supply. And it's about a gallon of water per
17 almond.

18 And you can see, driving around these orchards,
19 the migration. There's four separate types of irrigation.
20 Okay. There's flood irrigation. It's called standing pipe
21 irrigation. Micro-watering, which is like sort of small
22 sprinkler and then drip irrigation. And the whole industry
23 is migrating downwards towards more efficient watering
24 practices over time.

25 And they've also had innovations, which hey

1 didn't necessarily apply for, but they came up with
2 funding to develop. You know, the cuttings actually being
3 able to -- they used to burn those, now they grind them up
4 so fine that they can reintroduce it into the soil and
5 makes the soil richer. And they don't have to burn it and
6 improves their quality. And this kind of innovation is
7 happening. We are focused today on buildings and
8 appliances, but there's a lot of work happening in
9 agriculture as well. It's good to get an update on that.

10 Next week, I'm going to San Diego. We're doing
11 two days with the Navy. And then my view is Energy
12 Commission is reasonably well-known. It's actually
13 well-known in Sacramento, reasonably well-known in San
14 Francisco, somewhat known in Los Angeles and totally
15 unknown in San Diego. We just don't have the staff
16 presence down there at all. So I'm doing a roundtable with
17 the entire environmental community down there, meeting with
18 SDG&E, meeting with Renovate America, the big PACE Program,
19 and some military folks as well -- going to go show the CEC
20 flag down there.

21 And the only other highlight I have is just I
22 feel very good about where we are with the new Solar Homes
23 Program Administration. We inherited a three-month backlog
24 that's down to about a month. Today the new director of
25 that program -- Le-Quyen's successor -- Brett Arriaga,

1 doing a terrific job. And we're getting very good
2 feedback to that effect. That's it for me.

3 CHAIRMAN WEISENMILLER: That's great.
4 Report?

5 MS. VACCARO: Nothing to report.

6 CHAIRMAN WEISENMILLER: Executive Director
7 Report. I guess we should first thank you for the
8 brightened scenery in there.

9 MR. OGLESBY: Well, I was just going to draw --you
10 covered things very well, but I wanted to draw attention
11 and give credit to the Energy Commission team that's worked
12 on getting the energy-themed photos installed here in the
13 business meeting room. And particularly giving credit to
14 Michael Wilson, Katie Kukulka and our cartography team that
15 was able to produce these in-house. And I think they're
16 very suitable and fitting to add to our environment as we
17 go through our energy agenda.

18 CHAIRMAN WEISENMILLER: And Public Adviser Report?

19 MS. MATHEWS: I don't have a lot to report, but I
20 would like to say thank you to all of those who helped work
21 on and contribute to the Diversity Policy Statement, which
22 included Laurie ten Hope and John Butler and Kourtney
23 Vaccaro and various other staff members. That's it.

24 CHAIRMAN WEISENMILLER: Thank you. Thanks for
25 your help on that.

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Public comment?

(No audible response.)

CHAIRMAN WEISENMILLER: Then, this meeting is
adjourned.

(Whereupon, at 2:58 p.m., the Business Meeting
was adjourned.)

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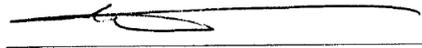
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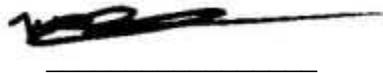
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